

# STUDY SUMMARY SHEET

(F/S)

CSA ARG/S 301/79

<b>1. COUNTRY</b>	Argentina	
<b>2. NAME OF STUDY</b>	Deep Water Port Construction Project at Punta Medanos	
<b>3. SECTOR</b>	Transportation / Port	
<b>4. TYPE OF STUDY</b>	F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Ministerio de Economia, Secretaria de Estado de Intereses Maritimos (SEIM)
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	The Overseas Coastal Area Development Institute (OCDI)	
<b>7. STUDY PERIOD</b>	Apr.1979 ~ Jul.1979 3month(s) ~	
<b>8. SITE OR AREA</b>	Horn Medenos, Province of Buenos Aires	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>Planning for a deep sea for grain export, iron ore and coal import.            Breakwater: north 4,100m, south 1,900m Breakwater: 2 total length 800m            Piers : 10 for fishery, 2 x 400m for grain export            Quays : 500m for containers, 500m for iron ores exclusive quays for steel mill and industry            Fishery related: freezing and cold storage facilities, market, factories</p>		

プンタ・メダノス深水港建設計画

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

## Reasons for Cancellation:

COPUAP (Deepsea Ports Construction Commission) was disbanded in 1987, and the construction of new ports has been frozen since then.

## Situation:

After the suspension of the construction project of new ports, emphasis was shifted to the strengthening of the existing ports, and it was decided to deepen Bahia Blanca and Quequen Ports. In late 1991, the dredging was completed to the depths of 40 - 45 feet at Bahia Blanca, while Quequen is being dredged to the depth of 40 feet.

The Government has been promoting the decentralization of administration, and the port facilities have been gradually transferred from the national government to provincial or local authorities. According to the new Port Law now under parliamentary deliberations, only five ports (Buenos Aires, Quequen, Bahia Blanca, Santa Fe and Ushuaia) will remain under AGP. The operation of the five ports will be eventually privatized in the future.

The economic policy of the present Government has been emphasizing the privatization of public enterprises, deregulation and decentralization. Investments in port facilities along Parana, Paraguay and La Plata Rivers will be undertaken increasingly by the private sector.

# STUDY SUMMARY SHEET

## (M/P)

CSA ARG/S 101/86

<b>1. COUNTRY</b>	Argentina	
<b>2. NAME OF STUDY</b>	Study on Economic Development	
<b>3. SECTOR</b>	Development Plan / Integrated Regional Development Plan	
<b>4. TYPE OF STUDY</b>	M/P	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Planning Secretariat, Presidency of the Nation
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	International Development Center of Japan (IDCJ)	
<b>7. STUDY PERIOD</b>	Aug.1985 ~ Jan.1987 17month(s) ~	
<b>8. SITE OR AREA</b>	The entire country (2.78 million ha)	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>In response to the specific requests from the Argentine side, the study examined the following five sectors and offered proposals which would be effective to reduce their constraints and to contribute to the reactivation of the Argentine economy.</p> <p>1)Macroeconomy(macroeconomic policies, the role of economic development plans, etc.)</p> <p>2)Agriculture(crops, livestock and fisheries)</p> <p>3)Industry(general policy, petrochemical industry, electronics industry, agroindustry and small and medium industries)</p> <p>4)Transportation(general policy, utilization of Parana and La Plata Rivers for grain transportation, containerization, cargo terminal in Buenos Aires, and alternative accesses toward the Pacific)</p> <p>5)Export(export promotion policies and measures, role of international trading companies, etc.)</p>		

<b>PRESENT STATUS</b>	In Progress or In Use
	Delayed
	Discontinued

**Description :**

## Dispatch of Experts:

Based on the recommendations of the study, a number of Japanese experts in various fields of industry and fisheries have been sent to Argentina.

## Subsequent Studies:

1993-96 Economic Development II (M/P) which aims to conduct the examination in order to promote industry, trade and investment from the viewpoint of the reinforcement of economic relations with the East Asian Region.

## Finance:

1988-92 Project-type technical cooperation for packaging technology.

## Detail:

## (FY1991 Overseas Survey)

In Sep. 1991, the Planning Secretariat, the counterpart agency of the JICA study, was reorganized into the Economic Planning Secretariat under the Ministry of Economy. The functions of the new Secretariat are compilation and analysis of the economic trends rather than the identification and promotion of new projects / programs.

The improvement of administrative efficiency, privatization and other general policy measures, which were discussed in the JICA study, have been proceeding rapidly under the policy package adopted in accordance with the Currency Exchange Law of April 1991.

The Government has been pushing various measures of the fiscal reform and administrative reorganization and rationalization in adherence to the IMF conditionality. Accordingly, specific recommendations of the study (such as institutional credit, infrastructural development and preferential taxation) are yet to make impacts on policy makers.

The report of the study has been utilized extensively when and where various issues of long-term development are discussed.

## (FY1995 Domestic Survey)

Taking into consideration that the political package since 1991 was very effective to stabilize the economy, 2nd phase of the study on Economic Development is requested for sake of the economic growth continuing much longer term. At present, the survey works are carried on two years by JICA since 1994. The counterpart is the Investment and Trading Secretariat, Ministry of Economy. The major object of the project is the exportation to and the investment from Eastern Asia.

## (FY1995 Overseas Survey)

The fundamental targets of this project are to privatize the enterprises, to cut the state subsidy for the public enterprises and to improve the profit distribution system, in order to activate the national economy and to promote the exporting business, and try to create the economic atmosphere which is competitive in the world market by means of cost saving for production and improvement.

Based on the experiences obtained, final recommendations of the project report and the recent trends of economical growth, forecasting the situations at March, 1996, a part of the contents of the OKITA-I project has been changed, aiming at the maximum effects for the Government and the enterprises concerns.

\* Refer to Economic Development II (M/P) 1996 for further information.

# STUDY SUMMARY SHEET

(F/S)

CSA ARG/S 302/86

<b>1. COUNTRY</b>	Argentina	
<b>2. NAME OF STUDY</b>	Preliminary Design for the Amplification of an Inspection and Repairing Workshop for Electric Rolling Stock	
<b>3. SECTOR</b>	Transportation / Railway	
<b>4. TYPE OF STUDY</b>	F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Argentine Railway(F.S.)
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Japan Railway Technical Service (JARTS)	
<b>7. STUDY PERIOD</b>	Feb.1985 ~ Sep.1986 19month(s) ~	
<b>8. SITE OR AREA</b>	A site 10km away from Plaza Constitucion along the General Roca Line	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>Based on the experience of the first stage, a plan in the second stage of electrification of the general Roca Line was made up including reinforcing a workshop and introducing related facilities.</p> <p>F/S on the expansion of an existing workshop.</p> <p>The existing demand-expectation and transport-plan made up by Argentina Railway (F.A) was reexamined for the second stage.</p> <p>Through the above work, the needed amount of electric rolling stock was calculated. Then several plans for reinforcing a workshop were made up. At last the best plan was selected by technical and economical points of view.</p> <p>&lt;Preliminary design&gt;</p> <p>The amount of rolling stocks needed during the second stage was calculated 320. So the workshop should be expanded along with this scale.</p> <p>&lt;Facilities for inspection and repairing&gt; various sorts.</p> <p>Construction; First and second workshops, related buildings, management building, railway truck and wiring. Railway truck in the yard consists of come-and-go line, test line, detention line and etc.</p> <p>Facilities; light, signal, telecommunication, drainage, water-supply etc.</p>		

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

The electrification of the General Roca Line was commenced in 1981 and completed in 1985. The system (25kv. 50Hz) was new in Argentine Railways(FA), and there was no facility for inspection and repair of the introduced railcars. FA thus planned to establish a new inspection and repair facility by Japanese technical assistance.

Owing to the worsening of the economic situation, the electrification program was scaled down and the construction of the new facility was de facto cancelled. The rehabilitation and improvement of the existing facilities was subsequently proposed as an alternative.

(FY1991 Overseas Survey)

In order to simplify the process of privatization, FA was divided in April 1991, and FEMESA was created for metropolitan railways. Subsequently, preparations have been going on for the privatization of each railway line. To date, tenders have been called for the Mitre, Uguiza and Sarmiento Lines. Preparation of the tender documents has not been completed for the Roca and San Martin Lines.

Therefore, it is yet hard to know what will happen to the inspection and repair functions after privatization. However, Escalada Plant still remains the center of inspection and repair and appears likely to remain as such in the future.

# STUDY SUMMARY SHEET

## (M/P)

CSA ARG/S 102/87

<b>1. COUNTRY</b>	Argentina		
<b>2. NAME OF STUDY</b>	Development Plan for the Telecommunication and Broadcasting Networks in the Province of Mendoza		
<b>3. SECTOR</b>	Communications & Broadcasting / (Comms. & Broad. in) General		
<b>4. TYPE OF STUDY</b>	M/P		
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Direccion de Comunicaciones, Ministerio de Obras y Servicios Publicos, Provincia de Mendoza	
	<b>PRESENT COUNTERPART AGENCY</b>		
<b>6. CONSULTANT(S)</b>	Japan Telecom. Eng. and Consulting Service (JTEC)		
<b>7. STUDY PERIOD</b>	Jul.1986 ~ Mar.1987 8month(s) Jun.1987 ~ Nov.1987 5month(s)		
<b>8. SITE OR AREA</b>	Province of Mendoza (about 150,000 sq.km)		
<b>9. MAJOR PROPOSED PROJECT(S)</b>			
<p>1. Long-term development and improvement plan for the telecommunications networks up to the year 2005.</p> <p>1) Phase 1(1991-1995)(Total project cost US\$80.082 thousand)          a)Subscriber telephone installation(STI)54,800, b)Public telephone installation (PTI) c)1,500 Rural telephone installation(RTI) 800, d)Local exchange installation(LEI) 79,144 terminals(t.), and e)Toll exchange installation (TEI) 2,200t.</p> <p>2) Phase 2 (1996-2000) (Total project cost US\$81,602 thousand)          a)STI 75,200, b)PTI 1,400, c)RTI 400, d)LEI 92,070t., and e)TEI 1,800t.</p> <p>3) Phase 3 (2001-2005) (Total project cost US\$129,856 thousand)          a)STI 106,100, b)PTI 1,500, c)RTI 800, d)LEI 161,081t., and e)TEI 3,000t.</p> <p>2. Long-term development and improvement for the broadcasting networks up to the year 2005: 1)MF transmitter installation and renewal 13 sets; 2)FM transmitter installation 76 sets; 3)TV transmitter installation 67 sets; 4)Satellite relay construcion 3 links; and 5)Terrestrial line addition for TV use 1 line.</p>			

メンドーサ州電気通信・放送網整備拡充計画

<b>PRESENT STATUS</b>	<p>In Progress or In Use</p> <p>Delayed</p> <p>Discontinued</p>
<p><b>Description :</b></p> <p>Subsequent Studies: (FY 1991 Overseas Survey) Based on the proposed M/P, the provincial government is planning to undertake F/S of the telephone network development.</p> <p>Detail: The provincial government of the Mendoza uses the study results as guidelines for the private sector. In 1989, the provincial government requested for technical assistance on finance and demand forecasting, income and expenses forecasting for the local staffs of the study. Therefore, the technical guidance had been conducted.</p> <p>(FY 1991 Overseas Survey) Telecommunication is still operated by CAT, but the negotiations have been going on between CAT and Telefonica. Before long, telecommunication will be transferred to Telefonica.</p> <p>(FY 1995 Overseas Survey) The result of similar survey works carried by the third country is also the same as the result of JICA's survey at the main points. The plans and the recommendations of this survey works will be adopted as the political targets for long time at this province and also as the model of the development plan in the future.</p> <p>(FY 1997 Overseas Survey) Telecommunication in whole country including province of Mendoza was privatized in 1990, and supervising work has been transferred to the central government. The report of the study was utilized as a reference for drawing speck of privatization. Thereafter, the final report has not been utilized.</p>	



# STUDY SUMMARY SHEET

## (M/P)

CSA ARG/A 101/88

<b>1. COUNTRY</b>	Argentina	
<b>2. NAME OF STUDY</b>	The Agricultural Development Project in the Adjacent Area to the Yacyreta Dam in the Province of Corrientes	
<b>3. SECTOR</b>	Agriculture / (Agriculture in) General	
<b>4. TYPE OF STUDY</b>	M/P	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Government of the Province of Corrientes (Ministry of Agriculture and Animal Husbandry)
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Japan Agricultural Land Development Agency	
<b>7. STUDY PERIOD</b>	Feb.1987 ~ Dec.1988 22month(s) ~	
<b>8. SITE OR AREA</b>	Roreto and San Carlos Area located in North Part of Province of Corrientes (Population: 660,000, Area 290,000 ha)	
<b>9. MAJOR PROPOSED PROJECT(S)</b>	<p>Drainage Canal:258km, Irrigation Canal:256km, Road:330km, Agricultural Land Reclamation:119,800 ha, Agricultural Facility:6 sets, Agricultural Technics center:1 set, Pump Facility which supplies water by its pressure:6sets</p> <ol style="list-style-type: none"> <li>1. Irrigation project (37,000ha in the lower part of Yacyreta dam and 4,000ha in San Carlos area)</li> <li>2. Drainage project (50km long of primary channel and 238km of main channel)</li> <li>3. Farm road project (100km long of main road and 323km of branch road)</li> <li>4. Agricultural land development project (100km long of main road and 323km of branch road)</li> <li>4. Agricultural land development project (model projects for paddy field, dry field, horticulture under/without structure: 134,000ha of whole area)</li> <li>5. Cultivation plan (promotion of rice production mainly and introduction of promising cereals, vegetables and fruits)</li> <li>6. Farming programme</li> <li>7. Livestock and grassland improvement</li> <li>8. Afforestation programme</li> <li>9. Agriculture supporting service</li> <li>10. Establishment of agricultural training center</li> <li>11. Food processing and storage facilities</li> <li>12. Other social infrastructure improvement plan (electrification, telecommunication, water supply, education, medical service etc.)</li> </ol>	

ヤシレタダム隣接地域農業総合開発計画

<b>PRESENT STATUS</b>	<p>In Progress or In Use</p> <p>Delayed</p> <p>Discontinued</p>
<p><b>Description :</b></p> <p>Project Implemented:  (FY 1991 Overseas Survey)  Based on M/P, the provincial government of Corrientes implemented the projects as follows.  Drainage Project: For the expansion of the farmland, 12km drainage canal had been constructed jointly with a producers group in Roreto area.  Vegetable cultivation mini-project: JICA has been implementing technical cooperation at the vegetable cultivation center since 1990.  (FY 1996 Overseas Survey)  Farmers and technicians take part in the training course, and productivity has increased.</p> <p>(FY 1997 Overseas Survey)  Ministry of Agriculture uses the agricultural models for production (rice-livestock rotation, rice, natural and artificial grassland, etc.)</p> <p>Effects:  (FY 1996 Overseas Survey)  Sanitation improved at northern part of Corrientes.(approx.250000 ha)Improvement of drainage facility enabled the barren land to produce.</p> <p>Subsequent Study:  (FY 1997 Overseas Survey)  Oct.1997~Mar.1998 Review  *Contents of the study  Actualization of land distribution, drainage / irrigation channel, electricity system, roads survey.  Consultant / PALMEYRO Y ASOCIADOS  Cost / 0.06mil.US\$</p> <p>Detail:  (FY 1991 Overseas Survey)  The provincial government desires keenly F/S on drainage canal project related to M/P, but lack of fund for implementation makes it difficult.</p> <p>(FY 1995 Domestic Survey)  By the modification of the design and the completion of construction, it becomes necessary to reinvestigate the Yacyreta Dam.</p> <p>(FY 1995 Overseas Survey)  The performances of this survey works such as maps and data are utilized widely for the other projects for the development of the Province of Corrientes.  To continue this kind of survey work is very important to prove the activation of industrial economy and to make it easier to draw up various secondary plans.</p> <p>(FY 1996 Overseas Survey)  F/S of irrigation, drainage and dispatch of experts to CE.TE.PRO were requested to Japan.</p>	

## STUDY SUMMARY SHEET (Basic Study)

CSA ARG/S 501/94

<b>1. COUNTRY</b>	Argentina	
<b>2. NAME OF STUDY</b>	Topographic Mapping of North-East Region in Argentine Republic	
<b>3. SECTOR</b>	Social Infrastructure / Survey & Mapping	
<b>4. TYPE OF STUDY</b>	Basic Study	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Instituto Geografico Militar (IGM)
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	International Engineering Consultants Association Kokusai Kogyo Co., Ltd.	
<b>7. STUDY PERIOD</b>	Jan.1991 ~ Jan.1994 36month(s) ~	
<b>8. SITE OR AREA</b>	North-east region in Argentina, the area spread on Misiones State and Corrientes State with an area of 52,000sq.km.	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
1)Shooting aerial photograph with a scale of 1:60,000. 2)Topographic mapping with a scale of 1:100,000. 3)To arrange digital mapping data.		

北東部地形図作成調査

<b>PRESENT STATUS</b>	In Progress or In Use
	Delayed
	Discontinued

**Description :**

Topographic maps with a scale of 1:100,000 and digital mapping data become available to use them for development planning and survey works of north-eastern border area of Argentine. Aerial photographs have been taken on the area of 100,000sq.km in Misiones State and Corrientes State. These photos will be able to use for various investigation, survey and planning works at this region.

(FY 1995 Overseas Survey)

The topographic maps drawn by this project are very useful to grasp the circumstances of this region.

The maps are utilized widely for the various places such as the Geographical Research Center of the Army.

# STUDY SUMMARY SHEET

## (M/P)

CSA ARG/A 102/95

<b>1. COUNTRY</b>	Argentina	
<b>2. NAME OF STUDY</b>	Forest Resources Management Study at Chaco	
<b>3. SECTOR</b>	Forestry / Forestry & Forest Conservation	
<b>4. TYPE OF STUDY</b>	M/P	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Ministry of Natural Resources, Department of Forest, Formosa State
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Japan Forest Technical Association	
<b>7. STUDY PERIOD</b>	Feb.1994 ~ Jan.1996 23month(s) ~	
<b>8. SITE OR AREA</b>	Northern part of Formosa State Bermejo Province, Ramon Lista Province, Matacos Province, approx.2.1million ha. (model area approx.32,500ha)	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>1. Forestry Operation Project</p> <ul style="list-style-type: none"> <li>-The Maximum Permissible Tree Felling 503.5m<sup>3</sup>/year</li> <li>-Renewal Area 204ha/year</li> <li>-Nursery 2.3 million</li> <li>-Forest Road 358.8km</li> <li>-Farm Forest 2,362ha</li> </ul> <p>2. Forest Conservation</p> <ul style="list-style-type: none"> <li>-Reserved Forest 317ha</li> </ul>		

チャコ地域森林資源調査

<b>PRESENT STATUS</b>	<p>In Progress or In Use</p> <p>Delayed</p> <p>Discontinued</p>
<p><b>Description :</b></p> <p>(FY 1996 Overseas Survey)  This study, carried out with LANDSAT, clarified the actual situation of land use and forestry resources at the range of 2.1 mil. ha. Local government makes effort to reinforce local institution which is in charge of forest. Local Forest Law is being reviewed.  After the completion of study, pre-proposal for West Formosa Model Forest was submitted to Department of Natural Resources and Environment. In accordance with that, Department of Natural Resources at Formosa University started inventory work. In Sep.1995, dispatch of 2 experts for formulation of West Formosa Integrated Management Project was requested to JICA.</p> <p>(FY 1997 Overseas Survey)  The intensive area(200ha) has still neither concessions nor forest licenses. Argentine side is waiting for the implementation of model area to have real experience.</p> <p>(FY 2001 Overseas Survey)  Based on the study results, Formosa State realized the necessity of residents (most of them are native inhabitants) participation for endangered forest conservation and multi-purpose utilization, and set up 800,000ha of the study area as model forest.  Environmental Policy Department of the Central Government, Formosa State Government, National Formosa University and concerned municipalities formulated community participation sustainable forest management plan under the cooperation of residents organization. As a result, the model forest was certified as a member of International Model Forest Network, Canada. Also, the south model area of the study area has become a part of Reserva Biosfera Riacho Teuquito, a natural life sanctuary selected by MAB (Man and Biosphere Program), UNESCO.  Concerning the management of the model forest, a request for expert dispatch and development welfare support project has been submitted. Also, the Ministry of Production is considering organic meat production as a sustainable production model as well as emphasizing the necessity of technical transfer by Japanese experts.</p> <p>(FY 2005 Overseas Survey)  No information to be specifically mentioned.</p>	

# STUDY SUMMARY SHEET

## (M/P)

CSA ARG/S 121/96

<b>1. COUNTRY</b>	Argentina		
<b>2. NAME OF STUDY</b>	Economic Development (the Second Study)		
<b>3. SECTOR</b>	Development Plan / (Development Plan in) General		
<b>4. TYPE OF STUDY</b>	M/P		
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>		
	<b>PRESENT COUNTERPART AGENCY</b>		
<b>6. CONSULTANT(S)</b>	International Development Center of Japan (IDCJ)		
<b>7. STUDY PERIOD</b>	Jul.1994 ~ Jun.1996 23month(s) ~		
<b>8. SITE OR AREA</b>	Argentina		
<b>9. MAJOR PROPOSED PROJECT(S)</b>			
Following are the main 4 issues to be studied and Major Recommendations:			
<p>Issue 1: Strengthening institutional Support for the Expansion of Export to and the Promotion of Direct Investment from East Asia</p> <ul style="list-style-type: none"> <li>- Formulate a targeted market intelligence strategy (TAMIS)</li> <li>- Integrate information systems</li> <li>- Upgrade the function of trade promotion organization</li> <li>- Strengthen export finance, insurance and guarantee systems</li> </ul>			
<p>Issue 2: Expansion of Export Capacity Through Improvement in Productivity and Quality Market Access</p> <ul style="list-style-type: none"> <li>- Identify the real issue of market access problems</li> <li>- For technical problems, organize a task force and avoid misunderstanding by involving technical professionals</li> <li>- For non-technical problems, develop an approach based on a package deal</li> </ul> <p>Marketing Strategies</p> <ul style="list-style-type: none"> <li>- Emphasize the real value of Argentine products that are "healthy, safe, and environmentally-sound."</li> <li>- Promote a whole product concept which stresses not only price and quality but also suppliers' reliability</li> <li>- Differentiate products and seek a niche market</li> </ul> <p>Productivity and quality</p> <ul style="list-style-type: none"> <li>- Seek improvement though the whole process from production to export</li> <li>- Strengthen the primary industry to supply high-quality raw materials to the processing industry</li> </ul>			
<p>Issue 3: Development of Argentine Small-and Medium-sized Manufacturing Enterprises</p> <ul style="list-style-type: none"> <li>- Strengthen the function of BICE and Banco de la Nacion</li> <li>- Provide SMEs with readily understandable information on technical supporting programs</li> <li>- Organize a specialist training program to improve the quality of advisors</li> <li>- Develop practical programs in quality-control organizations</li> <li>- Build a nation wide quality improvement service network</li> </ul>			
<p>Issue 4: Transport Infrastructure improvement for Industrial Development and Trade Promotion</p> <ul style="list-style-type: none"> <li>- Exploit existing facilities to the maximum extent by utilizing railway facilities for inland transportation</li> <li>- Undertake a "Nationwide Containerization Study" in order to establish a long-term master plan</li> <li>- Introduce the concept of port sales</li> </ul>			

経済開発フェーズII

<b>PRESENT STATUS</b>	<p style="text-align: center;">In Progress or In Use</p> <p style="text-align: center;">Delayed</p> <p style="text-align: center;">Discontinued</p>
<p><b>Description :</b></p> <p>(FY 1997 Domestic Survey)  In Argentina:  - The Ministry of Economy, the counterpart organization of this project, created a Japan Office, and a counterpart staff has been assigned to the post.  - Counterpart team has carried out several seminars in Argentine cities where the study team did not hold seminars in order to disseminate the study outcome by using Spanish materials made from the study report.  - With the request from the counterpart team, the study report is now on a Homepage of Internet.  - In an effort to expand export to East Asia, Argentina's strategy is in line with the recommendations.</p> <p>In Japan:  - International Development Center of Japan held seminar in August 1996 on Argentina to the private sector to introduce the recent development of the Argentine Economy.</p> <p>(FY 1998 Domestic Survey)  Export of beef for Japanese market, which was discussed in the issue 2 (Expansion of Export Capacity), will be realized.  ALIC (Agriculture &amp; Livestock Industries Corporation) of Japan is preparing for establishing the local office in Argentina.</p> <p>(FY 1998 Overseas Survey)  In accordance with the proposal of this study, Subsecretary of Commerce has been implementing a)formation of the program for promoting the export; b)fund provision by BICE to export industries; c)insurance for export loan; and d)development of comprehensive information system.  In addition, ADI was established in Aug.1997 for promoting the foreign investment toward Argentina.  Regarding the sea transportaion and ports, the following activities have been conducted, in relation to the proposal by this study.  a)Buenos Aires Port Administration Company: preparing for the establishment;  b)Coordination with other ports: categorization and registration of other ports in whole Argentina.  c)Canals and port space: dredging of canals. extension of port space, and development of land transportation.  d)Promotion of trading of the port: staff were dispatched to several overseas ports for promoting the trade.  e)Dredging of rivers: under implementation.</p> <p>(FY 1999 Overseas Survey)  The report of this Study has been/is utilized by the companies, the chamber of commerce, and different domestic institutions/organizations both in public and private sectors which desire to expand the relations with other countries in the process of liberalizing the Argentine economy and establishing the new trade relation with other countries.  The recommendations of this Study on the participation in the market are utilized as the practical guideline for those institutions. Moreover, the recommendations for making Argentine products adjust to the requisitions of the overseas market have been implemented or are under implementation.</p> <p>(FY 2002 Domestic Survey)  1. Dispatch of senior volunteer.  2. JICA-JETRO Joint seminar on trade and investment in Argentina.</p>	



# STUDY SUMMARY SHEET

(F/S)

CSA BOL/S 301/77

<b>1. COUNTRY</b>	Bolivia	
<b>2. NAME OF STUDY</b>	Viru Viru International Airport Development	
<b>3. SECTOR</b>	Transportation / Air Transportation & Airport	
<b>4. TYPE OF STUDY</b>	F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	AASANA/Administration of Airport and Supplementary Services for Air Navigation
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Japan Airport Consultants, Inc.	
<b>7. STUDY PERIOD</b>	Apr.1977 ~ Dec.1977 8month(s) ~	
<b>8. SITE OR AREA</b>	Viru Viru in Santa Cruz, Bolivia	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>The Study reviewed the Master Plan of the new port proposed by the Bolivian Government, and forecasted the air traffic demand in the years 1985, 1990, 1995, and 2000.</p> <p>1.Airfield facilities Runway(3,200mx45m); parallel taxiway(720m in 1985, 3,500m in 2000); passenger apron(5 berths in 1985, 13 in 2000); and cargo apron(2 berths in 1985, 4 in 2000).</p> <p>2.Buildings Passenger terminal(11,000 sq.m in 1985, 23,000 in 2000); and cargo terminal(900 sq.m in 1985, 3,600 in 2000).</p> <p>3.Navigational aids/telecommunications/Meteorological facilities Aeronautical fixed service; aeronautical mobile service; and radio navigational aids(ILS Category 1, VOR/DME, NDB &amp; locater).</p> <p>4.Lighting (approach lighting system; visual approach slope indicator; and runway &amp; taxiway lights; etc.).</p> <p>5.Power supply and fuel supply facilities</p> <p>* Cost: 1) is for two-stage construction, and 2) for four-stage construction.</p>		

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

The reasons for implementing this project are as follows:

- 1)Relative advantage over the neighbouring countries in cargo handling capability provided by the international-standard airport;
- 2)Improvement was urgently needed because of the operational restrictions at the International airport of La Paz;
- 3)Joint Committee for the development was established with the strong support of Santa Cruz Development Authority; and
- 4)In competing with La Paz, citizens of Santa Cruz desired establishment of the high-level international airport.

## Subsequent Studies:

Feb.1978 D/D completed (Japan Airport Consultants, Inc.)

## Finance:

May.1979 L/A 10.8 bil.Yen

(Viru Viru International Airport Development Project)\*

Mar.1983 L/A 6,689 mil.Yen

(Viru Viru International Airport Development Project)\*

## \*Contents of project

- 1.Airfield facilities(Runway 3,500mX45m, taxiway, apron).
  - 2.Passanger terminal building(18,000sqm) and other facilities.
  - 3.Navigation facilities, lighting facilities and power supply facilities.
  - 4.Fuel supply facilities, urban facilities (water supply, drainage etc).
- (loan for foreign currency for 1,2 and 4 above and a port of local currency)

## Construction:

Jul.1984 Operation started

## Situation:

-There are about 11 to 12 daily flights leaving from and arriving at the airport, which is equivalent to El Alto Airport of the Capital.

-The Passenger Terminal building has not been well maintained.

Cleaning service is not well performed.

-The cost of maintenance and personnel are covered by airport charges.

-The problem at this airport is the need of changing the Precision Approach Pass Indication (PAPI). However, the improvement has so far been postponed, because the improvement of La Paz Airport has the current priority.

## (FY1991 Overseas Survey)

The original design of the airport has turned out to have some problems: the terminal for cargos as well as aprons are too narrow; the parking area is too large, having an average occupancy rate of only 30% (owing to the fact that Lima Airport has still been the principal airport despite the expectation that Viru Viru would substitute it).

## Related Project:

## (FY1994 Domestic Survey)

The Government has a plan to modernize all air navigational facilities at its major four (4) airports, namely, ViruViru/Santa Cruz, La Paz, Cochabamba and Tarija.

Under the plan, Wilcox of USA will install Instrument Landing System(ILS) equipment for difficult site, and aeronautical telecommunications facilities will be upgraded by Spanish assistance.

# STUDY SUMMARY SHEET

## (Basic Study)

CSA BOL/S 501/78

<b>1. COUNTRY</b>	Bolivia	
<b>2. NAME OF STUDY</b>	Topographic Mapping Project for Chapare Area	
<b>3. SECTOR</b>	Social Infrastructure / Survey & Mapping	
<b>4. TYPE OF STUDY</b>	Basic Study	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Instituto Geographico Militar
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	International Engineering Consultants Association	
<b>7. STUDY PERIOD</b>	May.1975 ~ Mar.1978 34month(s) ~	
<b>8. SITE OR AREA</b>	Chapare Area(20,000 sq.m)	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
Aerophoto mapping (Scale: 1/60,000; 25,000km <sup>2</sup> ) National base map (scale: 1/50,000; 44 plates)		

チャパレー地区地図作成事業

<b>PRESENT STATUS</b>	<p style="text-align: center;">In Progress or In Use</p> <p style="text-align: center;">Delayed</p> <p style="text-align: center;">Discontinued</p>
<p><b>Description :</b></p> <p>Utilization of the study:  (FY 1991 Overseas Survey)  Maps have been served as a basis to construct new roads in Chapare Area.</p> <p>(FY 1995 Overseas Survey)  The results and performances of this study are utilized for  -Planning the route of trunk roads,  -Agricultural development plan,  -Development plan of new coca farms, and  -Provision of the land ledger of coca farms.</p> <p>(FY 1996 Domestic Survey)  The produced maps have been widely utilized such as the forestry survey, the underground resources survey, etc.</p> <p>Detail:  (FY 1991 Overseas Survey)  Equipments provided by the Japanese Government have been well utilized even after more than ten years, except for a part.  The IGM desires Japanese assistance for another topographic mapping project in the Northern La Paz area.</p>	

## STUDY SUMMARY SHEET (Basic Study)

CSA BOL/A 501/79

<b>1. COUNTRY</b>	Bolivia	
<b>2. NAME OF STUDY</b>	Land Use Mapping Project for Chapare Area	
<b>3. SECTOR</b>	Agriculture / (Agriculture in) General	
<b>4. TYPE OF STUDY</b>	Basic Study	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Department of Farmers, Agriculture and Animal Husbandry
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Agricultural Development Consultants Association Nippon Koei Co., Ltd. Sanyu Consultants Inc.	
<b>7. STUDY PERIOD</b>	Feb.1980 ~ Mar.1980 1month ~	
<b>8. SITE OR AREA</b>	Chapare District and surrounding regions in Cochabamba Province	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>We visited the project site to conduct basic data study necessary drawing a land use map in Chapare District. However a part of it has already completed in governmental sector, therefore we changed the objective of the study to giving technical comment and the evaluation of its results by the advice of Japanese embassy.</p> <p>Main contents of the advices, as a result of field investigation and examination of materials, are:</p> <ol style="list-style-type: none"> <li>1.To improve road infrastructure</li> <li>2.To take consideration into improvement of farm land including preventing soil erosion.</li> <li>3.To establish and manage distribution and process system of farm products</li> <li>4.To investigate the possibility to produce Kenaf (ambari hemp) coconut palm and sago palm.</li> <li>5.To put more importance on beef cattle than on milch cows.</li> </ol>		

チャパレー地区土地利用図作成

<b>PRESENT STATUS</b>	In Progress or In Use
	Delayed
	Discontinued

**Description :**

(FY1995 Domestic Survey)

On March, 1980, when the SW Mission and the Survey Team visited Bolivia simultaneously and commence the practical discussion with Bolivian side, it was disclosed that the project was already being carried on by the Government of Bolivia. Therefore, the Mission and the Survey Team quitted the planned survey works and made an evaluation and some of advice for the implementation of the project, and left back to Japan following to the instructions given by JICA's Headquarter.

(FY1995 Overseas Survey)

The results and performances of this study are utilized for:-

- to grant the state qualification for engineers,
- to grant the right to utilize the forest for private firms and to settle the rate of commission, and
- to settle the preventive measures for the transportation within the region.

The maps and the various technological data are utilized at various schools and enterprises.

# STUDY SUMMARY SHEET

(F/S)

CSA BOL/S 302/82

<b>1. COUNTRY</b>	Bolivia									
<b>2. NAME OF STUDY</b>	Railway Construction/Rehabilitation Project (Eastern Line: Taperas-Robore and Ipias-Robore)									
<b>3. SECTOR</b>	Transportation / Railway									
<b>4. TYPE OF STUDY</b>	F/S									
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Bolivian National Railways(ENFE)								
	<b>PRESENT COUNTERPART AGENCY</b>									
<b>6. CONSULTANT(S)</b>	Japan Railway Technical Service (JARTS)									
<b>7. STUDY PERIOD</b>	Jun.1979 ~ Mar.1982 33month(s) ~									
<b>8. SITE OR AREA</b>	Between Taperas and Robore, and between Ipias and Robore on the Eastern Line									
<b>9. MAJOR PROPOSED PROJECT(S)</b>	<table style="width: 100%; border: none;"> <tr> <td style="border: none;">Earthwork (cutting, embarking)</td> <td style="border: none; text-align: right;">345,000cu.m</td> </tr> <tr> <td style="border: none;">Bridges 9 places</td> <td style="border: none; text-align: right;">325m</td> </tr> <tr> <td style="border: none;">Culverts 7 places</td> <td style="border: none;"></td> </tr> <tr> <td style="border: none;">Tracks (provisional and main tracks)</td> <td style="border: none; text-align: right;">11.7km</td> </tr> </table>		Earthwork (cutting, embarking)	345,000cu.m	Bridges 9 places	325m	Culverts 7 places		Tracks (provisional and main tracks)	11.7km
Earthwork (cutting, embarking)	345,000cu.m									
Bridges 9 places	325m									
Culverts 7 places										
Tracks (provisional and main tracks)	11.7km									

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

Subsequent Studies:

Feb.1982 F/S completed  
 May.1984 D/D completed

Finance:

Mar.1980 Application for a yen credit on Railway Rehabilitation Project  
 Mar.1982 Pledge  
 Jul.1982 E/N  
 Mar.1983 L/A 5,544 mil.Yen (Railway Rehabilitation Project, )\*

\*Contents of project

Civil works main constructions(9 bridges, 6 culverts and other), rails and spair parts.(Loan for civil works, main constructions, some of consultant expenses)

Jun.1984 OECF mission A/M

Construction:

Sep.1985 contracted, started  
 Mar.1989 completed

Rails and spare parts have been purchased and delivered to the sites in 1993. The rail laying works has been implementing since Sep.1994 and lasting in Dec.1994. The improved sections are in actual use without any problem, However, there are still many defective structures and inferior roadbed portions on other sections, and capacities of these sections are not being sufficiently utilized. To cope with this situation, OECF conducted SAPS survey and is now in the midst of monitoring.

Effect:

The rehabilitation of the national railway ensured the safe and reliable transportation of agricultural products, and the farmers living along the railway line have been increasing agricultural production.



# STUDY SUMMARY SHEET

(F/S)

CSA BOL/S 303/82

<b>1. COUNTRY</b>	Bolivia		
<b>2. NAME OF STUDY</b>	National Telecommunication Network Project		
<b>3. SECTOR</b>	Communications & Broadcasting / Telecommunication		
<b>4. TYPE OF STUDY</b>	F/S		
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	ENTEL	
	<b>PRESENT COUNTERPART AGENCY</b>		
<b>6. CONSULTANT(S)</b>	Nippon Telecommunication Consulting Co., Ltd.		
<b>7. STUDY PERIOD</b>	Jan.1982 ~ Sep.1982 8month(s) ~		
<b>8. SITE OR AREA</b>	Whole country		
<b>9. MAJOR PROPOSED PROJECT(S)</b>			
<p>1)Construction of microwave network system;          -Microwave system: 21 sections          -UHF system: 19 sections          -VHF system: 69 sections</p> <p>2)Establishment of toll public telephone facilities in remote area;          -Toll public telephone facilities: 59</p> <p>3)Construction of local telephone offices and outside plants;          -Total number of line units: 13,900</p> <p>4)Expansion of the long distance subscriber toll dialing network:          The analog system will be adopted. Existing automated switching system will be converted to the manual non-delay service switching system.</p> <p>5)Set up the long distance toll public telephones:          The service be automated by settling the VHF circuits. Charging work and line status supervision will be entrusted to each toll public telephone offices.</p> <p>6)Establishment of the telephone offices in the medium sized cities:          The digital electronic switching system(expandable upto 4,000 terminals).</p>			

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

The Government of Bolivia requested for a yen credit on March 1988. Because of the deterioration of the economic conditions, the OECF loan was approved for structural adjustment, and the project implementation was postponed.

(FY1991 Overseas Survey)

The technologies suggested by the study became somewhat outdated during the postponement, and the proposals of the study were dropped.

(FY1994 Domestic Survey)

No information.

# STUDY SUMMARY SHEET

## (M/P+F/S)

CSA BOL/S 201B/87

<b>1. COUNTRY</b>	Bolivia	
<b>2. NAME OF STUDY</b>	El Alto Airport Modernization Project	
<b>3. SECTOR</b>	Transportation / Air Transportation & Airport	
<b>4. TYPE OF STUDY</b>	M/P+F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Administracion de Aeropuertos y Servicios Auxiliares a la Navegacion Aerea
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Pacific Consultants International (PCI)	
<b>7. STUDY PERIOD</b>	Jan.1987 ~ Feb.1988 13month(s) ~	
<b>8. SITE OR AREA</b>	El Alto Airport, La Paz	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>&lt;M/P&gt;Development Phases of Airport Master Plan:</p> <p>1.Immediate Improvement Work(1988 -1993) : Total project cost US\$679,000</p> <p>1)Improvement of runway pavement and construction of runway shoulders and blast pads</p> <p>2)Renovation of the existing passenger terminal building</p> <p>2.Phase 1 development Project(1994 -1997) : Total project cost US\$138,000,000</p> <p>1)Pavement overlay of the existing runway</p> <p>2)Construction of taxiways, aprons, roads and a car park, a new passenger terminal building, a new cargo building, a new administration building and control tower</p> <p>3)Improvement of air navigation systems</p> <p>3.Phase 2 Development Project(1998 -2005)(Total project cost US\$53,000,000)</p> <p>1)Pavement overlay of the existing runway;</p> <p>2)Expansion of aprons;</p> <p>3)Expansion of car park, passenger terminal building and cargo terminal building; 4)Replacement of air navigation systems</p> <p>&lt;F/S&gt; Major First Stage Construction Works: a)Pavement overlay of the existing runway 4,000m x 46m, 14cm thick b)Construction of taxiways 4,000m x 23m c)Passenger terminal apron (324.5m x 131m) d)Freight terminal apron (97.5m x 131m) e)Construction of roads and a car park 1 lump sum f)Passenger terminal building (total floor area 16,500 sq.m) g)Freight terminal building(total floor area 5,000 sq.m) h)Administration buildings and control tower(Total floor area 4,000 sq.m) i)Improvement of air navigation systems 1 lump sum j)Other related facilities</p>		

エル・アルト空港近代化計画

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

<M/P> High priority is placed in the national development plan as important and urgent.

<F/S> The project has been partially completed (improvement of runway and rehabilitation of navigation aid facility, etc.).

## Subsequent Study:

Jan.1994 E/N 130 mil.Yen

(Project to Modernize El Alto International Airport of La Paz D/D)

\*Contents of project:Renovation of Air Security facility and construction of control Tower

Jun.1994 D/D completed.

## Finance:

Sep.1994 E/N 893 mil.Yen

(Project to Modernize El Alto International Airport of La Paz-1/3)

Sep.1995 E/N 2,374 mil.Yen

(Project to Modernize El Alto International Airport of La Paz-2/3)

\*Contents of project

Improvement of runway, construction of control tower, improvement of navigation aid facilities,communication facilities, etc.and procurement of communication equipment and landing aid equipment.

FY 1996 E/N 278mil.yen

(Project to Modernize El Alto International Airport of La Paz-3/3)

## Construction:

Mar.1995~Feb.1997 Completed.

Construction Trader/ Consortium (Marubeni-CHIZAKI)

## Perspective for Remaining Project:

(FY 1997 Domestic Survey)

There is no perspective for procuring fund for improvement of international terminal building, apron and so on.

## Situation:

The initial estimated cost for the complete reconstruction of the airport was US\$ 149 mil., therefore the project was reviewed several times.

The Airport Development Policy was formulated, based on this Study result, to undertaken project with the least construction work.

(FY 1996 Domestic Survey)

As a part of privatization policy of Bolivia, El Alto Airport has been on tender. However, the facilities relating to the airport safety, which have been constructed with the Japanese grant aid assistance, will not be privatized but be directly administered by the counterpart.

(FY 1997 Domestic Survey)

SBASA Co. Ltd got concession of main facilities as runway, taxiway, apron, passenger terminal for 25 years as a result of international tender. Conceded parts were privatized in March 1997.

Conditions of the contract are payment for AASANA of 20% of total income and 25% of landing charge, 200 mil.US\$ investment for 3 airports including Santa Cruz and Cochabamba, shouldering AASANA's debts and so forth.

(FY 1998 Domestic Survey)

A private company is in charge of operation and management of some airport facilities (e.g. runway, taxiway, apron, and passenger building). The prospect of constructing those facilities is vague.

# STUDY SUMMARY SHEET

(F/S)

CSA BOL/S 304/87

<b>1. COUNTRY</b>	Bolivia	
<b>2. NAME OF STUDY</b>	Survey for the Road Improvement between San Borja and Trinidad	
<b>3. SECTOR</b>	Transportation / Road	
<b>4. TYPE OF STUDY</b>	F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Servicio Nacional de Caminos
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Central Consultant, Inc. CTI Engineering Co., Ltd.	
<b>7. STUDY PERIOD</b>	Nov.1985 ~ Jul.1987 20month(s) ~	
<b>8. SITE OR AREA</b>	Road between San Borja and Trinidad	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>1)First Phase</p> <p>1)Embankment over 222 km, related structures, preparation of pavement sub base, etc.</p> <p>2)Asphalt pavement between San Borja and Puerto Barrador</p> <p>3)A ferry terminal</p> <p>2)Second Phase</p> <p>Asphalt pavement over 212 km from San Borja to Puerto Ganadero</p>		

サンボルハ～トリニダ道路改良

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

(1)First Phase

Subsequent Studies:

Jan.1989 D/D completed (Consulting firm: Central Consultant)

Finance:

Dec.1989 Request was submitted to IDB for the construction of road.

IDB has been providing the fund for the improvement of Route 3, which includes the San Borja-Trinidad section. It is planned that the construction of the Cotapata-Santa Barbara section will be commenced in 1991 and the construction of the San-Borja-Trinidad section is expected to commence after this project. IDB requires EIA as a condition for its loan approval.

(FY 1991 Overseas Survey)

SENAC expects to commence the project sometime during 1995-1998.

The total project cost is estimated to be US\$ 89 mil. , 80% of which will be funded by IDB (US\$ 57 mil.) and 20% from the government fund (US\$ 32 mil.).

The project will be implemented as proposed by F/S and D/D of JICA.

(FY 1993 Overseas Survey)

Hereafter, refer to the Improvement of San Borja-Trinidad Section (D/D).

1.Road

Finance:

(FY 1997 Overseas Survey)

Government budget (approved in 5-years Investment Plan) and credit from international organization. (schedule)

Total Cost -- 74.3mil.US\$

(Local -- 59.44mil.US\$, Foreign -- 14.86mil.US\$)

(FY 1998 Domestic Survey)

Funds for pavement for up-raising: FNDR 80%, TGN 20%.

Construction:

(FY 1998 Domestic Survey)

Aug. 1997 Paving for up-raising of Trinida-Mamore was completed.

2.Bridge

(FY 1997 Overseas Survey)

San borja ~ Puerto Ganadero

Finance:

IDB, TGN

Construction:

Maniaui, Matos, Chevejecure, Museruna, Apere, Cuberene, Ibare ---- constructed.

San Borja ~ Puerto Almacen

Construction:

Amistad, Sicuri, Tajibo, Tigre, Mururita ---- constructed

Curiraba, Curirabita ---- bid in 1999 (planned).

(2)Second Phase

(FY 1997 Domestic Survey)

Financial source is BID, but detail is not clear yet because First Phase is still going on. Review of F/S will be necessary to implement.

# STUDY SUMMARY SHEET

(F/S)

CSA BOL/S 305/87

<b>1. COUNTRY</b>	Bolivia		
<b>2. NAME OF STUDY</b>	Groundwater Development Project on El Alto District in La Paz City		
<b>3. SECTOR</b>	Public Utilities / Water Supply		
<b>4. TYPE OF STUDY</b>	F/S		
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Servicio Autonomo Municipal de Agua Potable y Alcantarillada (SAMAPA)	
	<b>PRESENT COUNTERPART AGENCY</b>		
<b>6. CONSULTANT(S)</b>	Kyowa Engineering Consultants Co., Ltd.		
<b>7. STUDY PERIOD</b>	Jan.1987 ~ Jan.1988 12month(s) ~		
<b>8. SITE OR AREA</b>	El Alto District, excluding the airport area (71.5 sq.km) (The District was upgraded to El Alto City during the present study)		
<b>9. MAJOR PROPOSED PROJECT(S)</b>			
<p>1.Potentials of groundwater development</p> <ul style="list-style-type: none"> <li>- Southeastern side of Rio Seco (12km, intake of 30,000 cu.m/day)</li> <li>- Northwestern side (10km, intake of 20,000 cu.m/day)</li> </ul> <p>2.Major facilities 1) by 1995 2) by 2000</p> <ul style="list-style-type: none"> <li>- Water intake wells: <ul style="list-style-type: none"> <li>42 cu.m/h x 155m x 3000 x 37km 6 sets -</li> <li>42 cu.m/h x 120m x 3000 x 30km 6 sets 2 sets</li> <li>42 cu.m/h x 95m x 3000 x 22km 12 sets 12 sets</li> <li>42 cu.m/h x 72m x 3000 x 15km 6 sets 6 sets</li> </ul> </li> <li>- Water conveyance facilities (Main pipeline 58km)</li> <li>- A junction well, a puping well and related facilities</li> </ul> <p>* Costs shown above pertain to water intake facilities only.</p>			

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

Subsequent Studies:  
Mar.-Aug.1988 B/D

Finance:  
Oct.19.1988 E/N 1, 1,693 mil.Yen  
(Project for Development of Groundwater in El Alto City-Phase1)  
Feb.1989 Bidding (Successful bidder:Taisei Kensetsu)  
Jun.22.  
1989 E/N 2, 691 mil.Yen  
(Project for Development of Groundwater in El Alto city-Phase2)  
Oct.1989 Bidding (Successful bidder:Taisei Kensetsu)

Construction:  
Phase 1  
Apr.1989 started  
Feb.1990 completed  
Phase 2  
Dec.1989 started  
Jun.1990 completed

Main Constructed Facilities:  
Phase 1 - 16 intake wells, conveyance pipelines 27.6km, 5 pumps, 1 distribution pond, distribution pipes 9.35km, etc.  
Phase 2 - 14 intake wells, conveyance pipelines 11.2km, distribution pipes 9.6km, etc.

Situation:  
(FY 1994 Domestic Survey)  
Nowadays, SAMAPA is continuing the construction works of water service pipelines by its own budget, and the number of population served and the required amount of water supply are gradually increasing. The planned water supply amount in 2009, the year of target, is 30,000 cubic meter a day, compared with 5,800 in 1994.  
However, at present, actual supply amount is only about 3,000 cubic meter a day, equivalent to only 50 percent of planned figure and it seems to be very hard to improve.  
As the result of the operation of this facility, the stringent situation of the water supply for the City of El Alto has been rather mitigated. But, it would be still necessary to improve furthermore by means of extension of service pipelines to increase the water supply amount and to dessolve the non-service area in the City.  
On the other hand, the Cities of La Paz and El Alto, which are with SAMAPA's service, are still suffering from the serious water shortage due to the delay of development of the water resources, except for this project area.  
Therefore, it is considered that it may be about the time to establish supporting water supply facilities in the other areas, which has been recommended by the F/S, in order to increase the water supply amount.

(FY 1997 Overseas Survey)  
The lack of water in La Paz city and El Alto city is continuing mainly because of the rapid population growth. Therefore, the request for aftercare study was submitted and JICA accepted it. But soon after that, SAMAPA in El Alto was privatized and implementation of the aftercare study has been suspended.



# STUDY SUMMARY SHEET

(D/D)

CSA BOL/S 401/88

<b>1. COUNTRY</b>	Bolivia
<b>2. NAME OF STUDY</b>	Survey for the Road Improvement between San Borja and Trinidad
<b>3. SECTOR</b>	Transportation / Road
<b>4. TYPE OF STUDY</b>	D/D
<b>5.</b>	Servicio Nacional de Caminos
<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	
<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Central Consultant, Inc. Kokusai Kogyo Co., Ltd.
<b>7. STUDY PERIOD</b>	Sep.1987 ~ Jan.1989 16month(s) ~
<b>8. SITE OR AREA</b>	Road between San Borja and Trinidad
<b>9. MAJOR PROPOSED PROJECT(S)</b>	
First Phase Construction: - Road improvement - bridge construction (total length after improvement 229 km (including the ferry-serviced 7 km), 9 bridges)	

サンボルハ～トリニダ道路改良

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

Refer to the Improvement of San Borja-Trinidad section (F/S BOL/S 304/87) for the surveys before 1991.

## EIA:

1994 Implemented by JICA

Aug.1995 Completed and revision of the final report  
(FY 1995 Overseas Survey)

## Results of EIA:

(FY 1996 Domestic Survey)

The implementation of this project is likely to influence adversely on wild life, plants, water quality and surrounding views. Thus, the Study proposed several countermeasures such as the construction of eco-roads, preservation of artificial ponds and prohibition of logging. Also, it proposed to strengthen the watch-system against the illegal logging and to conduct a survey on ruins.

(1)Road Trinidad-Pto.Varador(10.5km)

(FY 1996 Overseas Survey)(FY 1997 Overseas Survey)

Finance: Fondo Nacional de Desarrollo Regional (National Fund for Regional Development),TGN

## Construction:

Apr.-Dec.1996

Jun.1997 Handing over

Cost / 5 mil.USS

Trinidad - Puente Ibare (8.5km) Pavement

Puente Ibare - Loma de Cachipere(2km) Surface treatment

Contractor / APOLO-IASA

Construction Cost / 5,639,448 USS

Consulting Firm / Oscar Crimiaux, Asociados S.A.T.

Consulting Cost / 482,256 USS

(2)Bridge

## Construction :

San Juan, San Gregorio, Puerto Almacen --- constructed

Curiraba, Curirabita --- bid in 1999 (FY 1998 Domestic Survey)

Tijamuchi --- not started

(3)Unimplemented Project

(FY 1996 Overseas Survey)

The financial source has been sought.

## Effect:

Development of agriculture and livestock-farming. Smooth transportation of agricultural and livestock products. Development of regional economy. Improvement of living standard.

## Related Project:

The construction of two bridges was started with the investment of USS 964,000 from the government fund. The construction of five bridges were just completed and the widening of another bridge is now in progress (USAID Fund).

Three other sections in Route 3 (156km) have been already constructed (IBD Fund).

# STUDY SUMMARY SHEET

(F/S)

CSA BOL/A 301/90

<b>1. COUNTRY</b>	Bolivia	
<b>2. NAME OF STUDY</b>	Agricultural and Rural Development Project in Santa Ana	
<b>3. SECTOR</b>	Agriculture / (Agriculture in) General	
<b>4. TYPE OF STUDY</b>	F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Regional Development Corporation of Tarija
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Naigai Engineering Co., Ltd.	
<b>7. STUDY PERIOD</b>	Jul.1989 ~ Aug.1990 13month(s) ~	
<b>8. SITE OR AREA</b>	Santa Ana in Tarija Dept.	
<b>9. MAJOR PROPOSED PROJECT(S)</b>	<p>Beneficial area (irrigation); 1,090 ha</p> <p>Proposed facilities;</p> <ul style="list-style-type: none"> <li>- Water source (concrete gravity dam)</li> <li>- Sedimentation dam</li> <li>- Irrigation canals <ul style="list-style-type: none"> <li>Main 5.4km</li> <li>Secondary 24.8km</li> <li>Reservoirs 14 nos.</li> </ul> </li> <li>- Road improvement 20.2km</li> <li>- Rural water supply (shallow wells) 15 nos.</li> <li>- Rural electrification 20.0km</li> <li>- Public health center 3 places</li> <li>- Educational facilities (school houses, etc.) 2 places</li> <li>- O/M equipment 3 places</li> </ul> <p>Beneficial household ; 171</p> <p>Beneficiary ; 1,056</p>	

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

(FY 1997 Overseas Survey)

Projects as shown below were implemented.

(1)Rural Electrification

Completed in Santa Ana, Disel, etc.

(2)Road Improvement

Finance:

Provision of machinery from JICA.

Several roads have been improved at Santa Ana area.

(3)Improvement of Educational Facility

Finance:

Social Investment Fund.

The priority of Tarija province is put to the areas of road, irrigation and energy.

Situation by Now:

(FY 1991 Overseas Survey)

The part of the infrastructures such as electric facilities, and health organization will be implemented by the Government of Bolivia reducing the scale of the project. It was learnt by another survey that the number of beneficiary is only 400 families, 2000persons.

Since the original plan seemed to be too big, as the result of the study, the plan has been scaled down to reduce the irrigation area 650ha from 1,100ha, and the costs for project becomes from \$15 million to \$6 million.

(FY 1992 Overseas Survey)

CODETAR is paving the road Tarija-Santa Ana, which is the main access to the project area.

CODETAR expect dispatch of study mission from Japan (for 1~2 months), and will request to Japan repeatedly.

CODETAR has the necessary domestic resources for the counterpart of the Final Project.

Before the implementation of the project, technical training of counterpart financed by JICA is expected.

(FY 1993 Overseas Survey)

Hoping to earn the grant aid from JICA, revised final design has been submitted to Japanese side. The cost for project becomes less than \$3 million.

(FY 1996 Overseas Survey)

As the enactment of decentralization act, the Regional Development Corporation of Tarija was resolved and the Municipality of Tarija has taken over its works. Due to the above-mentioned reason, no step has been taken for the finance procurement. The priority order of the development project in this region is (1)Road, (2)Irrigation and (3)Electrification.

(FY 1997 Domestic Survey)

Tarija Development Corporation had submitted request every year until it was dissolved. No request was made after the works had been taken over to Tarija Province.

(4)Agricultural and Rural Development

Perspective:

(FY 1997 Domestic Survey)

The new political power puts high priority on agriculture and rural development through decentralization of authority. For that purpose, Ministry of Agriculture, Livestock and Rural Development has been established.

(FY 1997 Overseas Survey)

Up-date study and modification of target area scale are scheduled.

Italia is implementing Agricultural Development Study in the area including a part of target area of this study. Study is in the second or the third phase at present.

(FY 1997 Overseas Survey)

\*Related Project "San Jacinto Dam"

Definition of the areas to be irrigated by water taken from the San Jacinto Dam, was started in parallel with this study and the areas were selected after the completion of the study. As a result, out of 1,000 ha of recommended area by the study, 500 ha was included into the irrigation area. (Irrigation area-3,600 ha, 1,000 households)

Finance:

Argentine government

Construction:

Phase I 1981~1982

Phase II May.1990~mid.1992

Phase III mid.1992~1998

Situation after completion :

(FY 1998 Domestic Survey)

Construction of the dam was completed. Part of the project area has been irrigated.

Perspective for the remaining project :

(FY 1998 Domestic Survey)

There has not been any progress and has no exact plan to realize the project.

# STUDY SUMMARY SHEET

(F/S)

CSA BOL/S 306/90

<b>1. COUNTRY</b>	Bolivia	
<b>2. NAME OF STUDY</b>	Road Improvement between Santa Barbara and Bella Vista	
<b>3. SECTOR</b>	Transportation / Road	
<b>4. TYPE OF STUDY</b>	F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	National Road Service Ministry of Transportation and Communication
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Central Consultant, Inc. Nippon Koei Co., Ltd. Kokusai Kogyo Co., Ltd.	
<b>7. STUDY PERIOD</b>	Aug.1989 ~ Mar.1991 19month(s) ~	
<b>8. SITE OR AREA</b>	Road Section between Santa Barbara and Bella Vista on the National Road 3	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>1. Total length of the projected road: 108.63km (Current road: 115.5km)</p> <p>2. Length of the widened road: 92.29km (85%)</p> <p>3. Length of the rerouted road: 16.34km (15%)</p> <p>4. Number of bridges: 13</p> <p>5. Number of tunnels: 2</p> <p>6. Pavement: asphalt and concrete pavement</p>		

サンタバルバラ・ベジャピスタ道路改良計画

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

## The Background of the project:

The project section is a part of the National Road 3 which connects La Paz and the province of Ben, the province of Bando which are lowlands and have great potential for development. On the National Road 3, except the section between Santa Barbara and Bella Vista, all other road sections have already improved or are just about to start the improvement works. Once these road sections will have improved, the road section between Santa Barbara and Bella Vista will obviously become the severe bottleneck for traffic. On the other hand, this road section is very notorious for its disaster occurrence and risky road section in Bolivia.

## Subsequent Studies:

(FY 1996 Domestic Survey)

Jan.1993 Bolivian Government requested to the Japanese Government to conduct D/D on the road and technical assistance for EIA.

1997 Implementation of D/D is said to be mentioned at the Bolivian IBD Project. However, it has been unconfirmed.

(FY 1997 Overseas Survey)

As of the end of 1997 F/S review, final design, EIA are being carried out for Santa Barbara ~ Bella Vista ~ Quiquibey (118km)

Study Period / 15 months

Consulting Firm / Contegral-Grimaux

Study Cost / 1.05mil.US\$

## Finance:

(FY 1997 Overseas Survey)

Estimated Cost / 200mil.US\$

IBD 700mil.US\$

Another financial resource is being procured.

## Construction:

1998 - 2000 Scheduled to be implemented (FY1996 Overseas Survey)

(FY 1997 Domestic Survey)

BID puts higher priority to San Borja~Trinidad and considers that starting a construction on Santa Barbara~Bella Vista is difficult unless Cotapata~Santa Barbara section is not completed.

(FY 1997 Overseas Survey)

The road was divided into two sections.

The first section is Santa Barbara - Caranabi (66km) and its construction cost is 112mil.US\$. The second section is Caranabi - Bella Vista (52km).

(FY 2000 Domestic Survey)

Contegral Selaya Jhonson, one of the local consultants, conducted F/S and D/D for the two sections and the provincial agency is considering the result of studies.

## Maintenance &amp; Operation:

The provincial road service agency will be assigned M&amp;O.

## Situation:

(FY1996 Overseas Survey)

The machinery provided by the Japanese Government has been utilized for the road maintenance of this section.

# STUDY SUMMARY SHEET

## (M/P)

CSA BOL/S 101/91

<b>1. COUNTRY</b>	Bolivia	
<b>2. NAME OF STUDY</b>	Modernization and Rehabilitation of Bolivian National Railways	
<b>3. SECTOR</b>	Transportation / Railway	
<b>4. TYPE OF STUDY</b>	M/P	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Bolivian National Railways
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Japan Railway Technical Service (JARTS) Japan Transportaion Consultants, Inc.	
<b>7. STUDY PERIOD</b>	Mar.1990 ~ Nov.1991 20month(s) ~	
<b>8. SITE OR AREA</b>	Bolivia : Total railway length about 3,600km	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>Optimum railway network in 2020, and railway reinforcement plans by stage</p> <p>1. Short-term plan (1991 - 2000) : Total investment, US\$720 million</p> <p style="margin-left: 20px;">1) Track improvement, 4 lines</p> <p style="margin-left: 20px;">2) Rolling stock reinforcement</p> <p style="margin-left: 20px;">3) Improvement of rolling stock workshops</p> <p style="margin-left: 20px;">4) reinforcement of telecommunications network</p> <p>2. Medium-term plan (2001 - 2010) : Total investment, US\$ 485 million</p> <p style="margin-left: 20px;">1) Track improvement, 2 lines</p> <p style="margin-left: 20px;">2) Rolling stock reinforcement</p> <p style="margin-left: 20px;">3) Improvement of rolling stock workshops</p> <p style="margin-left: 20px;">4) Reinforcement of telecommunications network</p> <p style="margin-left: 20px;">5) Computer utilization</p> <p style="margin-left: 20px;">6) New line construction, about 133km</p> <p>3. Long-term plan (2011 - 2020) : Total investment, US\$ 251 million</p> <p style="margin-left: 20px;">1) Track improvement, 4 lines</p> <p style="margin-left: 20px;">2) Rolling stock reinforcement</p> <p style="margin-left: 20px;">3) Reinforcement of the railway training school</p>		

鉄道網整備計画

<b>PRESENT STATUS</b>	<p>In Progress or In Use</p> <p>Delayed</p> <p>Discontinued</p>
-----------------------	---

**Description :**

## Subsequent Studies:

Railway Improvement between Oruro and Cochabamba, F/S

Oct.1995 the final report to be submitted

Major points of the planned improvement are the route change for about 33km which should be done urgently, the improvement of the railway for about 69km where many derailed accidents had been happened, and a section between Aguas-Calientes - Irpa-Irpa with a distance of about 55km, the major disastrous segment.

## Other implementations:

(FY 1992 Overseas Survey)

The M/P is being executed by ENFE according to the possible economic resources. The maintenance of the whole railway line is kept up. In several sections the track has been improved. Four new stations have been constructed. The repair of locomotive engines and equipment of workshops are being carried on.

## Others:

The master plan should be implemented as early as possible, since its implementation is considered significant from the standpoint of national economy. As for the urgent projects, it is necessary to draw up an optimum plan by comparing various alternative plans through feasibility studies and the like. It is also necessary to promote railway reinforcement in terms of both hardware and software.

(FY 1992 Overseas Survey)

\$500 million will be needed for the equipment investment from now on. Dispatch of Japanese long term expert for the management plan is required.

(FY 1993 Overseas Survey)

Bolivian National Railways wishes to make a Master Plan including construction of railway network connecting Aiquile and Santa Cruz.



# STUDY SUMMARY SHEET

## (M/P)

CSA BOL/A 101/91

<b>1. COUNTRY</b>	Bolivia										
<b>2. NAME OF STUDY</b>	Forest Resources Management										
<b>3. SECTOR</b>	Forestry / Forestry & Forest Conservation										
<b>4. TYPE OF STUDY</b>	M/P										
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Ministerio de Asuntos Campesinos y Agropecuarios, y Centro de Desarrollo Forestal									
	<b>PRESENT COUNTERPART AGENCY</b>										
<b>6. CONSULTANT(S)</b>	Japan Forest Technical Association Kokusai Kogyo Co., Ltd.										
<b>7. STUDY PERIOD</b>	Feb.1990 ~ Mar.1992 25month(s) ~										
<b>8. SITE OR AREA</b>	Model Area of 50,000ha within a Study Area of 300,000ha in Iturralde Province, La Paz State.										
<b>9. MAJOR PROPOSED PROJECT(S)</b>											
<p>The Forest Management Plan for the model area is prepared on the basis of the surveys on forest resources, soils, land use and vegetation, environmental impact assessment, and so forth.</p> <p style="padding-left: 40px;">Sector I (25.631ha)    Sector II (25.121ha)</p> <p>1. Nos. of Forest Compartments    30                      29</p> <p>2. Area Classification</p> <table style="margin-left: 20px; border: none;"> <tr> <td>Production forests</td> <td style="text-align: right;">20,737.02ha</td> <td style="text-align: right;">18,015.10ha</td> </tr> <tr> <td>Installations &amp; Nurseries</td> <td style="text-align: right;">41.15ha</td> <td style="text-align: right;">45.73ha</td> </tr> <tr> <td>Protection Areas</td> <td style="text-align: right;">4,793.55ha</td> <td style="text-align: right;">4,261.88ha</td> </tr> </table> <p>Others (forest roads, grazing areas, abandoned forest roads)</p> <p>3. Selection of 3 species(Mara, Cedro &amp; Verdolago) and the timber exploitation plan; Selection of 2 species(Mara &amp; Cedro) and the re-planting plan; and Plans for forest roads and timber transportation</p> <p>4. Forest Protection Plan</p> <p>5. Suggestions on the organization of maintenance and operation</p>			Production forests	20,737.02ha	18,015.10ha	Installations & Nurseries	41.15ha	45.73ha	Protection Areas	4,793.55ha	4,261.88ha
Production forests	20,737.02ha	18,015.10ha									
Installations & Nurseries	41.15ha	45.73ha									
Protection Areas	4,793.55ha	4,261.88ha									

森林資源管理計画

<b>PRESENT STATUS</b>	In Progress or In Use
	Delayed
	Discontinued

**Description :**

## Utilization of the study:

The basic idea of this study would be applied to formulate the Master Plan and to conduct feasibility study in other area in Bolivia.

(FY 1993 Overseas Survey)

The results of JICA's study are very useful for the establishment of new plan and the settlement of new areas for borrowing as the basic data of afforestation.

## Others:

(FY 1992 Overseas Survey)

The deterioration and loss of resources are steadily increasing in the tropical zones or areas.

On the forest field, project formation study is planned considering grant aid and project technical cooperation.

(FY 1993 Overseas Survey)

Looking for the financial resources to conduct survey works, GOB has requested the fund for Phase 2 survey to JICA.

In order to implement the recommended items, further technical and financial cooperations are requested.

(FY 1996 Overseas Survey)

\*Sustainable Forest Management Project for Tropical Forest in the Northern La Paz

This project was formulated in order to address the rapid deterioration of resources in the tropical zone covering more than one million ha in the northern La Paz, based on this study result. The financing from the International Organization of Tropical Forest is desired.

(FY 1997 Overseas Survey)

Based on the study, Ministry of Agriculture formulated "Northern La Paz Sustainable Forest Management Project". OIMT has pledged 50,000 US\$ for the project but not disbursed yet.

## STUDY SUMMARY SHEET (M/P+F/S)

CSA BOL/S 212/93

<b>1. COUNTRY</b>	Bolivia	
<b>2. NAME OF STUDY</b>	Control of Water Contamination of the Rivers in the City of La Paz	
<b>3. SECTOR</b>	Administration / Environmental Problems	
<b>4. TYPE OF STUDY</b>	M/P+F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	HAM, SAMAPA
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Pacific Consultants International (PCI)	
<b>7. STUDY PERIOD</b>	Feb.1992 ~ May.1993 15month(s) ~	
<b>8. SITE OR AREA</b>	Basin of the Choqueyapu River(535km2)	
<b>9. MAJOR PROPOSED PROJECT(S)</b>	<div style="border: 1px solid black; width: 100%; height: 15px; margin-bottom: 5px;"></div> <ul style="list-style-type: none"> <li>-Intake of the Choqueyapu River water at the downstream of city center</li> <li>-Transmission of the river water</li> <li>-Construction of oxidation ponds at Lipari</li> </ul>	

ラパス市水質汚濁対策計画調査

PRESENT STATUS	Completed or In Progress Completed Partially Completed Implementing Processing	Promoting Delayed or Suspended Discontinued or Cancelled
<p><b>Description :</b></p> <p>(FY1994 Domestic Survey) In order to implement the project, it is required to arrange budget enough to maintain the facilities. At present it seems not to be promoted from the standpoint of cost/benefit.</p> <p>(FY1995 Overseas Survey) The regulations regarding to the quality of residual water drained into river have been proclaimed. No other particular progress.</p> <p>(FY 1996 Overseas Survey) Because this study proposed the water treatment project, which targetted only the rivers in the suburb, the residents in the urban area would be unable to benefit from the project. Thus, the city of La Paz has an intention to implement a water quality improvement measure with the construction of small-scale waste water treatment plants which can be applicable to various areas in the city in order to increase the number of beneficiaries. Presently, the City of La Paz considers the implementation of the Phase II Study for it. The construction of the Small-scale plants will be easier to be implemented than that of the large-scale central treatment plan, which was proposed in this study, because of the small initial investment.</p> <p>(FY 1997 Overseas Survey) Election of a mayor was held in 1997 in La Paz where the former mayor was positive to adopt a module-type plant. As a result of election, no officers who is acquainted with the matter remained in the city hall of La Paz.</p> <p>*Module type --- The small-scale plant to distill waste water in place of draining to river directly.</p> <p>SAMAPA (Aqua dil Illimani: JV of French, Argentina, and Bolivian companies), a counterpart of the project, was privatized into a consession company in 1997. This company will be responsible for operation and management of water supply after July 1997 and be responsible for sewerage treatment after 2001. SAMAPA, consisting of seven staff, is in charge of managing the lease fee.</p> <p>(FY 1998 Domestic Survey) Since the site for the water treatment plant was unable to be acquired in and around the city area, it will be high if waste water is transported to 10 km downstream. Therefore, it becomes difficult to implement the proposed project. Regarding the module-type plant, it is difficult to treat the large amount of waste water due to the constraint of the site. Although it is possible to partially install this module-type, there is little impact on Choqueyapu River. The installation of the waste water treatment plant was conditioned in the concession contract when the SAMAPA was privatized. However, it will be unable to be implemented unless a large amount of subsidies is provided.</p> <p>(FY 1998 Overseas Survey) The cost of the proposed project is approx. 46 million dollars and cannot covered by the budget of city. It is also in the difficult situation to be financially assisted by Japan and other donor countries. When JICA follow-up study team visited to Lapaz City in March 1998, the city submitted the request for the additional study for construction of the module-type sewerage treatment plant.</p>		

# STUDY SUMMARY SHEET

## (M/P)

CSA BOL/A 102/95

<b>1. COUNTRY</b>	Bolivia	
<b>2. NAME OF STUDY</b>	Agricultural Marketing Systems in Santa Cruz	
<b>3. SECTOR</b>	Agriculture / (Agriculture in) General	
<b>4. TYPE OF STUDY</b>	M/P	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	-During the survey: Santa Cruz Regional Development Association -After the survey: Province of Santa Cruz
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	System Science Consultants Inc. Kokusai Kogyo Co., Ltd.	
<b>7. STUDY PERIOD</b>	Jan. 1994 ~ Jan. 1995 12month(s) ~	
<b>8. SITE OR AREA</b>	Santa Cruz City (Santa Cruz Province) Cochabamba and La Paz, greengrocery-producing district	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>1.Short-term plan 1)Improvement in related organization and legislation system. This plan includes various plans as organization/legislation improvement, facility service. To implement the project, development committees at central level and regional level will be established. And also gathering and forwarding association and greengrocery corporation are to be founded to administrate the Distribution Centers in producing/consuming districts. 2)Test improvement plan for existing distribution facilities. As a preparatory phase to establish association and corporation, association establishment preparation committee will be founded at producing district and elaborate the management plan and outcome report. At consuming district, market management council will be established in existing Abasto market to make improvement plan about market management and its implementation outcome report. 3)F/S on distribution center in producing/consuming districts. 2. Medium-long-term plan 1)Construction of gathering and forwarding facility and market facility in consuming district. Establishment of management system, Distribution center at Producing District:3 main center, 4 sub centers. Gathering and forwarding association: management system. 2)Stabilization of improved distribution system at wide area of Santa Cruz Province. 3)Nationwide promotion of distribution improvement model case: Distribution center at Consuming District, Greengrocery corporation.</p>		

<b>PRESENT STATUS</b>	In Progress or In Use
	Delayed
	Discontinued

**Description :**

subsequent study:

(FY 1998 Domestic Survey)

June 1998-June 1999 JICA F/S

Backgrounds:

(FY 1995 Domestic Survey)

The Govt. of Bolivia recognizes the importance of the project plan and considers the F/S as the first phase of implementation.

(FY 1996 Domestic Survey)

The Govt. of Bolivia has requested for F/S to the Govt. of Japan in 1996 based on the proposal and conclusion of M/P.

(FY 1996 Overseas Survey)

1.Short-Term Plan

In July 1995, the Master Plan Follow-Up Regional Committee was organized in the urban area and promoted the improvement of infrastructure in the wholesale market. Compared with the condition of 1994, the present market condition is better in sanitation. The legislation is expected to be announced officially next year. Also, the ordinance will be put into force to promote the decentralization of the wholesale market. In order to commence the operation of new marketing system, F/S and the construction of main facilities are to be implemented from 1996 to 2000.

2.Medium and Long Term Plan

The expansion of the marketing system at the regional level will be undertaken between 2000 and 2010.

The technical cooperation is requested for the reinforcement of organizations and the improvement of the marketing system.

(FY 1997 Domestic Survey)

D/D will be conducted next year.

(FY 1997 Overseas Survey)

JICA is to carry out F/S from FY 1998. To materialize the projects to be proposed by F/S, grant aid assistance from Japan and fund from FDC are expected.

The results of the study have been utilized for elaboration of Metropolitan Plan, Market Improvement Plan and so on.

(FY 1998 Domestic Survey)

Jul.1998 - Jun.1996 JICA Development Study (F/S) 'Agricultural Marketing Systems in Santa Cruz'.

(FY 1998 Overseas Survey)

The request for dispatch of two technical experts (one from the third country) in 2000 and procurement of a grant aid was submitted in 1999.

\* Refer to BOL/A 316/99 'Improvement of Agricultural Marketing System in Santa Cruz' (F/S)

(FY 2001 Overseas Survey)

Present Situation: Preparing for implementation of the project.

Puroduction Zone:

1. Committee (organized by the government organization in the targeted area.) was established at every collection center.

2. Farmers organization which maintain and operate the pilot collection center, was established and offer seminars with INALCO on farmers organization activities to the organization officers and all the producers in each municipalities. The topics of the seminar includes bale package works and the Center's role, etc.

Urban Zone:

1. Land for wholeale market construction is being prepared.

2. Offered seminer two times for wholesale dealers in the supply market.

3. Tried exams on wholesale market and circulation.

4. Finished bidding for yard of the construction site

Priority among the projects was unanimously determined as follows by the seminer participant organizations.

First Priority: Market System Improvement in Santa Cruz Province.

Second Priority: Establishment of a coordination committee among organizations.

Third Priority: Establishment of experimental wholesale market.

Japan's Technical Cooperation:

(FY 1999 Overseas Survey)

A request of two experts (including one from third country) and Japan's Grand Aid for 2000 was submitted in 1999.

(FY 2001 Overseas Survey)

Oct. 2000~ Short term expert.

Nov. 2000~ Long term expert.

(FY 2005 domestic survey)

Although a request for the Yen Grant was submitted, it has not been selected.

# STUDY SUMMARY SHEET

(F/S)

CSA BOL/S 307/95

<b>1. COUNTRY</b>	Bolivia	
<b>2. NAME OF STUDY</b>	Improvement Project of the Oruro-Cochabamba Line	
<b>3. SECTOR</b>	Transportation / Railway	
<b>4. TYPE OF STUDY</b>	F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Japan Railway Technical Service (JARTS) Kokusai Kogyo Co., Ltd. Oriental Consultants Co., Ltd.	
<b>7. STUDY PERIOD</b>	Mar.1993 ~ Oct.1995 31month(s) ~	
<b>8. SITE OR AREA</b>	204km of Oruro-Cochabamba	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>1)Aguas Calientes-Irpa Irpa (Area where frequent occurrence of disaster is observed:55km)</p> <p>1)Change of route (33km) and improvement of stations thereof</p> <p>2)Raising of ground level</p> <p>3)Construction of bridges and tunnels</p> <p>4)Improvement of railroads of the existing line (22km)</p> <p>2)Improvement of other sections (other than 1))</p> <p>1)Improvement of railroads of sections where derailment accidents occur frequently</p> <p>2)Construction of facilities, which enable trains to pass each other, at Cona Cona station</p> <p>3)Increase of the number of locomotives</p>		

オルロ・コチャバンバ間鉄道改善計画

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

(FY 1997 Overseas Survey)

Bolivian government has decided that the government be in charge of improvement of infrastructure and private company be in change of operation.

In consequence, Chilean company became successful-bidder for operation of national railway. Soon after that, the government decided to defer external debt unavoidably and financial assistance including for this project has been suspended. Under the circumstances, Chilean company plans to withdraw from management because it is not profitable.

(FY 1999 Overseas Survey)

Chilean company is continuing the management. Management of the railway of this section will be done by the Chilean company by June 2000 and be transferred to Bolivia afterward.

(FY 2005 Domestic Survey)

No information to be specifically mentioned.

(FY 2005 Overseas Survey)

There exists a possibility of nationalising Orubo-Cochabamba railway in the future. There is a plan to make action with experts from private institutions and new governments to implement the project.



## STUDY SUMMARY SHEET (Basic Study)

CSA BOL/S 502/95

<b>1. COUNTRY</b>	Bolivia	
<b>2. NAME OF STUDY</b>	Topographic Mapping of La Paz-Beni Region	
<b>3. SECTOR</b>	Social Infrastructure / Survey & Mapping	
<b>4. TYPE OF STUDY</b>	Basic Study	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Department of Map and Measuring
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	International Engineering Consultants Association Kokusai Kogyo Co., Ltd.	
<b>7. STUDY PERIOD</b>	Mar.1993 ~ Mar.1996 36month(s) ~	
<b>8. SITE OR AREA</b>	La Paz, Provincia de Beni	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		

ラ・パスーベニ県地形図作成(地形図)

<b>PRESENT STATUS</b>	In Progress or In Use
	Delayed
	Discontinued

**Description :**

Beni Province of La Paz is essential area to proceed the new economic policy based on natural resources exploitation and agriculture promotion. Therefore, the Bolivian Govt. seems to utilize the study to establish the Social Infrastructure Installation Project (road, electricity, water supply, drainage, irrigation canal, etc.) to step up the regional development of this area.

(FY 1996 Overseas Survey)

This Study was completed and the produced maps were handed over to the Bolivian Government from JICA on Sep.26.1996. These maps are sold at present, 30% of which have been purchased by agencies in charge of the development of this region.

(FY 1999 Overseas Survey)

40% of the maps were delivered by JICA to S.G.M and to private enterprizes in the fields of mining, electric power, timber processing, telecommunications, exploration of oil wells.

(FY 2005 Overseas Survey)

Technical cooperation: Dispatching 12 experts for 4 months.

Description: Preparation of La Paz, Provincia de Beni topographical maps from 1992 to 1993. 64 1:50,000 scale maps were prepared.

Others:

Beneficiaries are 1,500 square kilo metres of Alto, Provincia Beni and 100,000 residents. Of 50,000 people resides in rural area.

Construction of neighbouring roads and improvements in agricultural productivity. Supply of basic services such as electricity and water. However, these benefits can not be quantified due to financial constraints.

## STUDY SUMMARY SHEET (Other Studies)

CSA BOL/S 601/95

<b>1. COUNTRY</b>	Bolivia	
<b>2. NAME OF STUDY</b>	Environmental Impact Assessment of Road Improvement between San Borja and Trinidad	
<b>3. SECTOR</b>	Transportation / Road	
<b>4. TYPE OF STUDY</b>	Other Studies	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Ministerio de Desarrollo Economica Servicio Nacional de Caminos
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Central Consultant, Inc.	
<b>7. STUDY PERIOD</b>	Dec.1994 ~ Oct.1995 10month(s) ~	
<b>8. SITE OR AREA</b>	San Borja-Trinidad Road (220km)	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<ul style="list-style-type: none"> <li>-Plant operation (slope protection)</li> <li>-Tree felling control (protection of forest, animal and plant)</li> <li>-Installation of Eco-Road (tunnel)</li> <li>-Ruins Survey</li> <li>-Monitoring (animal, plant, air, noise)</li> <li>-Installation of traffic marks</li> </ul>		

サンボルハ～トリニダ間道路環境影響調査

<b>PRESENT STATUS</b>	<p style="text-align: center;">In Progress or In Use</p> <p style="text-align: center;">Delayed</p> <p style="text-align: center;">Discontinued</p>
<p><b>Description :</b></p> <p>(FY 1996 Domestic Survey)  A part of segments are under construction and it is expected to commence the construction of the rests utilizing this study. But, the implementation is not scheduled as yet because of large-scale reorganization of SNC this year.</p> <p>(FY 1997 Domestic Survey)  Rehabilitation of this road is to be funded by IDB. IDB is now reconstructing the section of National road Cotapata-Santa Barbara, but the progress is very slow, and cost will exceed the allocated amount. Construction of this section must be started after completion of Catapata-Santa Barbara anyway.  SNC is repairing damaged sections little by little with own fund, based on the proposal of this study.</p> <p>(FY 1998 Overseas Survey)  F/S on the Rurrenabaque - Yucumo - Trinidad section was reviewed by CAF(Cooperacion de Fomento). The Trinidad - Puerto Varador section was paved by BENI - ENDR Department.</p> <p>(FY 2000 Domestic Survey)  The local private sector is operating the maintenance for the road of San Borja - Puerto Ganaderc, however, the full-scale construction has not been conducted. It is said that IDB has no intention to fund this section and instead of IDB, World Bank will finance this construction. World Bank considers,  1) F/S, EIA, Final Design for the section of Rurrenabaque-Yucuno-San Borja: 200 mil\$  2) Review for F/S and D/D for the section of San Borja-Trinidad: 200 mil\$.</p> <p>(FY 2001 Domestic Survey)  The organization in charge for this Study, SNC requested the survey expense amounting about 2 million US\$ to the WB for the purpose of the F/S, D/D and EIA on the area of Rurrenabaque, Yucumo, San Borji, Trinidad (Pueto Ganadero) as a link in the road construction between San Borja and Trinidad, however, the answer by the WB was that it was impossible to finance to the new project in road sector due to the following reasons:  -</p>	

# STUDY SUMMARY SHEET

## (M/P)

CSA BOL/S 117/96

<b>1. COUNTRY</b>	Bolivia		
<b>2. NAME OF STUDY</b>	Flood Control in the Northern Rural Region of Santa Cruz		
<b>3. SECTOR</b>	Social Infrastructure / River & Erosion Control		
<b>4. TYPE OF STUDY</b>	M/P		
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>		
	<b>PRESENT COUNTERPART AGENCY</b>		
<b>6. CONSULTANT(S)</b>	Pacific Consultants International (PCI)		
<b>7. STUDY PERIOD</b>	Mar.1995 ~ Jun.1996 15month(s) ~		
<b>8. SITE OR AREA</b>	Northern rural area of Santa Cruz City (7,000km <sup>2</sup> ) in the department of Santa Cruz		
<b>9. MAJOR PROPOSED PROJECT(S)</b>			
<p>1.Chane-Pailon Area : River and drainage improvement</p> <ul style="list-style-type: none"> <li>- River improvement: 129.5km</li> <li>- Main drainage improvement: 57.0km</li> <li>- Secondary drainage improvement: 481.0km<sup>2</sup></li> </ul> <p>2.San Juan-Antofagasta Area: River and drainage improvement</p> <ul style="list-style-type: none"> <li>- River improvement: 34.4km</li> <li>- Main drainage improvement: 51.3km</li> <li>- Secondary drainage improvement: 212.0km<sup>2</sup></li> <li>- Road cum embankment: 9.0km</li> </ul> <p>3.Non-structural measures</p> <ul style="list-style-type: none"> <li>- Flood warning and evacuation system</li> <li>- Land use management etc.</li> </ul>			

サンタクルス北部地域洪水対策計画調査

<b>PRESENT STATUS</b>	In Progress or In Use
	Delayed
	Discontinued

**Description :**

(FY 1997 Domestic Survey)

1. Action of the Department of Santa Cruz and the Government of Bolivia.

- 1) An organization was established for the preparation of implementation for the master plan.
- 2) Budget was once acquired for the improvement of the existing hydrological observation network which was proposed in the M/P. However, this budget was used for some other purpose.
- 3) Request for implementing F/S was submitted to the Japanese Government.

2. JICA S/W mission visited Bolivia for the implementation of F/S in November, 1997.

(FY 1998 Domestic Survey)(FY 1998 Overseas Survey)

1998/Jul - 1999/May JICA Development Study ( F/S) "Flood Control in the Northern Rural Region of Santa Cruz".

Difference from the proposal of this study:

The target area of F/S was shrinchen at the stage of S/W, and the formation of topographic maps was excluded.

(FY 1998 Domestic Survey)

The request for a grant aid assistance for river and drainage improvement is to be submitted.

(FY 1999 Overseas Survey)(FY 2000 Domestic Survey)(FY 2001 Domestic Survey)

Request for a grant aid assistance (US\$17mil.) for the construction of the road cum embankment and bridge and the improvement of drainage was submitted in Aug. 1999.

# STUDY SUMMARY SHEET

## (M/P+F/S)

CSA BOL/S 218/96

<b>1. COUNTRY</b>	Bolivia	
<b>2. NAME OF STUDY</b>	Provincial Groundwater Development	
<b>3. SECTOR</b>	Social Infrastructure / Water Resources Development	
<b>4. TYPE OF STUDY</b>	M/P+F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Environmental Technologic Consultants Co., Ltd. Sumiko Consultants Co., Ltd.	
<b>7. STUDY PERIOD</b>	Oct.1994 ~ Aug.1996 22month(s) ~	
<b>8. SITE OR AREA</b>	Four prefecture (Chuquisaca, Oruro, Tarija, Santa Cruz) and four districts in south of La Paz of Bolivia.	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>&lt;F/S&gt;</p> <p>Water supply plan (including water source development plan, water supply and distribution plan) for rural communities in the study area.</p>		

地方地下水開発計画調査

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

(FY 1997 Domestic Survey)

1. Average water supply coverage in the Study Area, in the urban area with a population of 2,000 or more, amounts to 87.7%, while the level of water supply service availability is only 23.3% in the rural communities with a population of 2,000 or fewer inhabitants. There are as many as 3,023 blocks totally without water supply, a level equivalent to 71% of all 4,269 water blocks in the Study Area.
2. Safe potable water is seriously short, and the available water sources are dug wells, springs, reservoirs and rain water. In most cases, the water is not suitable for drinking.
3. This lack of water supply service is due to a)the natural-geographic conditions, b)the lag in the water resources development c)shortage of technology, manpower, and funds for the water supply and the water resources development d)the lack of operation and maintenance for the existing facilities.
4. The authority responsible for water supply service projects in Bolivia at national level is DINASBA, the National Direction of Basic Sanitation of the National Secretariat of Urban Affairs at the Ministry of Human Resources Development. In the rural areas, each Regional Development Corporations (CORDES), municipalities, municipal enterprises, international cooperation agencies of various countries and NGOs have been promoting projects. These projects have included shallow wells, springs, and surface water. In view of sporadic development efforts, service volume is deficient in absolute terms.
5. Prefecture of Oruro and Chuquisaca own Well drilling equipment, which is of an obsolete type.
6. Following to Popular Participation Law promulgated in 1994, the Decentralization Law was promulgated in July, 1995, by which CORDES were dissolved and all assets and staff were transferred to each Prefecture. The financial resources were shifted from central government to rural authorities in proportion to the size of population, which is promoting the activation of rural communities.
7. Bolivian side declared that the on-going foreign aid projects will be taken over without change by the Prefectures which already indicated their intention to give priority to the implementation of ground water development projects.

(FY 1998 Overseas Survey)

A grant aid assistance for La Paz was requested, however, it was not accepted. Since there are no other donors which can be expected to provide the excavators, the government of Bolivia is still expecting the implementation of Japanese grant aid assistance.

The counterpart agency of development study was reorganized to Department of Basic Sanitation, Ministry of Housing and Social Infrastructure due to the change of the government. This ministry is the major counterpart agency for the implementation of a grant aid assistance and the respective provincial governments are the implementing agencies.

(FY 1998 Domestic Survey)

Grant aid assistance ("Provincial Groundwater Development")

April 1997 E/N 1,777 million yen

Sep. 1997 E/N 1,325 million yen

- Contents of the project: provision of excavators and equipments for examination, and construction of model water supply facilities in Chuquisaca and Santa Cruz.

(FY 1998 Overseas Survey)

1998 B/D for a grant aid assistance (Provincial Groundwater Development II) is underway in Oruro and Tarija.

1999/Mar/25: E/N 1,173 million JPY, "Provincial Groundwater Development (II), Phase 1"

1999/Aug/26: E/N 700 million JPY, "Provincial Groundwater Development (II), Phase 2"

- Contents: provision of excavators and equipment for examination, and construction of model water supply facilities in Oruro and Tarija.

(FY 1999 Domestic Survey) Completed.

(FY 2001 Overseas Survey)

The water resource under the four site, where water supply systems were constructed, was evaluated as the best in quality and quantity and has enough amount of water to cover the present and future water demand.

Public health education program and system maintenance/operation/upgrading training contributed significantly to improve the residents' health and life standard. Hygienic environment including toilet facilities has been improved significantly. The water supply rate of the area highly exceeded the ratio of neighbor provinces. Childrens are in good health after the epidemic disease was terminated completely.



# STUDY SUMMARY SHEET

(F/S)

CSA BOL/A 317/97

<b>1. COUNTRY</b>	Bolivia		
<b>2. NAME OF STUDY</b>	Agricultural Development Study of Achacachi Area		
<b>3. SECTOR</b>	Agriculture / (Agriculture in) General		
<b>4. TYPE OF STUDY</b>	F/S		
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>		
	<b>PRESENT COUNTERPART AGENCY</b>		
<b>6. CONSULTANT(S)</b>	Naigai Engineering Co., Ltd. Pacific Consultants International (PCI) Kokusai Kogyo Co., Ltd.		
<b>7. STUDY PERIOD</b>	Oct.1996 ~ Dec.1997 14month(s) ~		
<b>8. SITE OR AREA</b>	Achacachi Municipality and its peripheral rural areas (Middle and down stream reaches of Keka River) in Department of La Paz; about 8,000ha		
<b>9. MAJOR PROPOSED PROJECT(S)</b>			
<p>(1) Short Term Development  Rehabilitation of main irrigation canal (57.3km) Improvement of secondary irrigation canal (11.4km) Improvement of intake structure (1 site)  Improvement of reservoirs (2 sites) Main road improvement (56.8km) Connection road improvement (7.2km) CRC garages/Exhibition farms (3 sites)  AC garages (3 sites) O&amp; M machinery and equipment (1 unit)</p> <p>(2) Medium-Term Development  Rehabilitation of main irrigation canal (60.3km) Improvement of secondary irrigation canal (13.3km) Improvement of intake structure (1 site)  Improvement of reservoirs (1 sites) Improvement of connection road (31.3km) Improvement of community and farm roads (40.8km) CR management and training buildings (3 sites) AC management and training buildings (3 sites) AC management and training buildings/garages (5 sites) O&amp; M machinery and equipment (1 unit)</p> <p>(3) Long Term Development  Improvement of secondary irrigation canal (10.0km) Improvement of intake structure (1 site) Connection road improvement (33.5km) Improvement of community and connection roads (33.7km) MC management and training buildings (10 sites)  *CR:Community Revitalization Center, AC:Area Center, MH:Meeting Hall</p> <p>(Project term)  (1) Short Term Development -- For 5 years beginning the Project (2) Middle Term Development  -- For 5 years after finishing the Short Term Development (3) Long Term Development -- For 5 years after finishing Middle Term Development</p>			

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

## Subsequent study:

(FY 1999 Domestic Survey)(FY 1999 Overseas Survey)  
Sep.~ Oct. 1999 B/D

## Finance:

(FY 1999 Domestic Survey)(FY 1999 Overseas Survey)

Request for Japan's grant aid was submitted in Aug. 1998. E/N will be signed in Jun.2000.

Nov. 1999 FDC (US\$512,000) was agreed for the construction of CRC and CA as well as for the implementation of agricultural support project. Construction will be started in Apr. 2000.  
In Jun. 1999, Achacachi City, Batallas City and UCPA agreed that 25 % of the subsidy on regional operation provided to these cities would be used for supporting the activities of AUPA.

## Construction Progress:

(FY 2001 Overseas Survey)

Period: Oct.8, 2001 ~ Jan.20, 2002.

Chachacomani Community Activation Center 73.5%

Kelani Area Center 72.2%

Kela Kala Community Activation Center 72.2%

Ptuni Area Center 72.63%

Belen Community Activation Center 72.72%

Haueritaka Area Center 72.66%

(FY 2002 Domestic Survey)

Period: Feb.2001 ~ Mar.2002

Projects to be implemented:

(FY 2001 Overseas Project)

Technology Generation (Development) and Relocation Project (Training and Infrastructure Construction) : Starts from April: 4 ~12 months.

## Effects:

(FY 2001 Overseas Project)

Various activities are in progress under the cooperation of NGO in order to operate the Community Center properly and to assist AUPA user organization members in project operation, accounting, document processing, and machine operation. The Community Center is expected to play an important role in the enhancement process of AUPA.

## Following schedule:

(FY 2002 Domestic Survey)

Concerning to the construction in Phase 2, Bolivian Ministry of Foreign Affairs submitted the formal request for the Grant to the Embassy of Japan in Bolivia. Japanese Ministry of Foreign Affairs are considering the possibility for providing the Grant with taking into account for the status of utilizing the facilities constructed in Phase 1 and the public safety

(FY 2003 Domestic Survey)

There is no prospects for implementation of the second phase as of October 2003 because of the deterioration in the security situation in the nation. A possibility of a new grant aid including improvement of construction machinery for the sake of infrastructural development of this region will be examined through implementation of a feasibility study.

## Others:

(FY 1999 Domestic Survey)

AUPA was formed in Aug. 1998 and officially approved in Apr.1999. AUPA is a non-profit cooperatives, aiming to improve the productivity, to enhance income, and to improve the life environment by utilizing CRCs as CAs.

## Background:

(FY 1998 Domestic Survey)

Since December, 1997, Coordination Institution for Rural and Agricultural Development in Achacachi Area (Alias; "Project Achacachi") has been established at La Paz Economic Development Bureau.

Mr.Samuel W.Tapia Soria, who has participated in the course for counterparts' training, is in charge of the Institution's works. The Institution has carried out following works with JICA Experts to implement the Project so far.

- To request Grant Aid to the Government of Japan on the Short Term Development Plan of the Project.
- Formulating the budget for establishing the Institution officially at Department of La Paz Office (since the fourth quarter of 1998).
- Raising fund in Bolivia for constructing Community Revitalization Center (CRC) and Area Center (AC) which is proposed in Middle Term Development Plan because constructing them during the Short Term Development Plan was effective for beginning and progressing the Project when considering residents.
- Concluding the agreement between regional administrations, or Achacachi and Batallas cities on implementing the Project.
- Concluding the agreement on cooperation with technical and financial support institutions in implementing the Project.
- Enlightenment activities on the Project to the farmers in the Project Area and establishing CRC steering committee by the representatives of each community for implementing the Project.
- Holding the seminars on the Project for the farmers in the Project Area.

With establishing the Institution, dispatch of short term experts were requested for "Agricultural Support System" on implementing and promoting the beginnings of the Project. Thus, JICA dispatched short term experts from May 15 to August 15, 1998. The activities of the experts in Bolivia were as follows;

- Grant aid was requested of the Embassy of Japan by the Government of Bolivia in August, after formulating the sustainable O & M plan on agriculture, rural infrastructure, CRC and AC, and technology transfer.
- As for formulating the budget on the coordination institution in Department of La Paz, it was explained that validity of the Project, the support system for implementation, and required staff and cost. Accordingly, the budget was approved from the fourth quarter period in 1998.
- As for construction fund of CRC and AC, construction by Farmers Development Fund (FDC) which receives 2KP fund was basically agreed with support of the Embassy of Japan JICA Office in Bolivia.
- The agreement was concluded on agriculture and rental of construction machinery on implementing the Project and cooperation in overall project between Achacachi city / Batallas city and Department Governor.
- As a technical support institution of the Project, Department of Agriculture, San Andres University (UMSA) concluded the agreement with Department Governor on cooperation in utilizing its staff and Belen experiment station of UMSA's facilities in the Project Area, and technical instruction and technology transfer to farmers. The fund will be raised by FDC and the university.

ラパス県アチャカチ地区・農村農業開発計画

# STUDY SUMMARY SHEET

(F/S)

CSA BOL/S 309/99

<b>1. COUNTRY</b>	Bolivia		
<b>2. NAME OF STUDY</b>	The Feasibility Study on Flood Control in the Northern Rural Region of Santa Cruz		
<b>3. SECTOR</b>	Social Infrastructure / River & Erosion Control		
<b>4. TYPE OF STUDY</b>	F/S		
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Department of Santa Cruz	
	<b>PRESENT COUNTERPART AGENCY</b>		
<b>6. CONSULTANT(S)</b>	Pacific Consultants International (PCI)		
<b>7. STUDY PERIOD</b>	Jul.1998 ~ Jul.1999 12month(s) ~		
<b>8. SITE OR AREA</b>	River improvement 92.72km, Drainage improvement 83.92km, Road 9.83km		
<b>9. MAJOR PROPOSED PROJECT(S)</b>			
Planner structural measures are as follows;			
Area	River improvement(km)	Drainage Improvement(km)	Road(km)
Chane-Pailon area			
Rio Ehame area	26.35	0.0	0.0
Rio Pailon area	31.41	10.36	0.0
Okinawa drainage	0.0	21.65	0.0
Sub-total	57.76	32.01	0.0
San Juan-Antofagasta area			
San Juan area	17.36	43.11	0.0
Antofagasta area	17.60	8.80	9.83
Sub-total	34.96	51.91	9.83
Total	92.72	83.92	9.83

サンタクルス北部地域洪水対策計画調査

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

(FY 2000 Domestic Survey)

The Bolivian Government requested grant aid of the project to Japanese Government.

Request for a grant aid assistance (US\$17mil.) for the construction of the road cum embankment and bridge and the improvement of drainage was submitted in Aug. 1999.

(FY 2003 Domestic Survey)

The grant aid requested in 1999 has not been determined yet.

While the measures for structures proposed in the M/P have made little headway, Santa Cruz Province has been pushing forward with what it could such as new construction of the "organization in relation to improvement of flood and drainage", proposed as measures for structures, and preparation for water level designing in terms of the "flood prediction and warning system".

(FY 2004 Domestic Survey)

Although the requests have been made for flood control in Okinawa area and San Juan, Antofagsta area, it has not been implemented.

(FY 2004 Overseas Survey)

In 2003 and 2004, Department of Santa Cruz has submitted an application, described below, to the Bolivian Gov. regarding implementation of the Japanese corporation project.

1) Grande River Disaster Prevention Project

2) Study on Flood Control and Basis Management of Grande River in the Republic of Bolivia

In addition, draft of structured and unstructured measure plans were submitted by the study conducted with Japanese corporation. Along with the study results and comments, hydrological, field information, and socio-economic data are mainly used for the promotion of unstructured measures. Structured measures will be started in 2005 or after 2006 as the project to improve both Chane and Pirai river conducted by SEAPRI, by responding to overseas investment.

(FY 2005 Domestic Survey)

Project has been implemented focusing on institutional preparation and soft component measures, such as disaster prevention system. In addition, request has been made for Lio Grande river basin development.

(FY 2005 Overseas Survey)

Hydrological data gathering and analysis has been conducted in 19 observation sites of SENAMHI with own funds. The objectives of the study are to predict El Nino and La Nina, and to establish early prevention networks for annually and suddenly occurring floods in target areas.

In addition, hazard maps were prepared by identifying flood prone areas with satellite pictures acquired during the year 2001 and 2004.

Furthermore, observation sites have been established at several water level observation sites.

# STUDY SUMMARY SHEET

(F/S)

CSA BOL/A 316/99

<b>1. COUNTRY</b>	Bolivia	
<b>2. NAME OF STUDY</b>	Improvement of Agricultural Marketing System in Santa Cruz	
<b>3. SECTOR</b>	Agriculture / Agricultural Processing	
<b>4. TYPE OF STUDY</b>	F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Prefecture of Santa Cruz, Department of Sustainable Development
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	System Science Consultants Inc. Nippon Koei Co., Ltd.	
<b>7. STUDY PERIOD</b>	Jun.1998 ~ Jul.1999 13month(s) ~	
<b>8. SITE OR AREA</b>	Santa Cruz City, valley area and low land in the Departmenet of Santa Cruz	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>1) Consumption Area Construction of New Wholesale Market for Fruits &amp; Vegetables, Conversion of Existing Market into Retail Market, Provision of Related Legislation and Institution.</p> <p>2) Production Area Creation of New Collective Shipping Place, , Provision of Related Legislation and Institution.</p> <p>3) Training and Tech-transfer Trainning for Logistic System, Legislation and Institution</p>		

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

(FY2000 Domestic Survey)

Japanese and Paragway experts were dispatched and three technical assistances are on going.

(FY 2003 Domestic Survey)

Although there has been no progress, due to administrative factors, it is intending to implement it within 1 or 2 years time.

(FY 2004 Overseas Survey)

Following activities were conducted for agricultural market development project through local initiatives.

- 1) Training and practical seminars in San Isidro and Saipina for developing organised producers with the awareness of improving marketing system of the product.
- 2) Establishment of the first cooperative society in San Isidro pilot centre
- 3) Marketing of crops sent from San Isidro Logistics Pilot Centre
- 4) Continuous assistance to local agricultural producers
- 5) Selection of wholesale and supermarkets for starting group marketing from San Isidro
- 6) Assistance to wholesales related to the project
- 7) Preparation of diverse production plan to maintain the market throughout the year
- 8) Establishment of logistics centre in Saipina and Bhaje Grande for supplying the market and supermarkets in the future
- 9) Preparation in establishing experimental wholesale market in Santa Cruz
- 10) Construction and preparation of 7 Santa Cruz wholesale market system proposed in F/S.

However, there were problems of funding source to establish the wholesale market. Therefore, organisation, producer training, and preparation for establishing logistics centres in 7 location are conducted at this point.

In addition, technical corporation by agricultural marketing and logistics system improvement project was requested to the Japanese Gov.

(FY 2005 Domestic Survey)

Although a request for a Grant Aid was submitted, it has not been selected.

(FY 2005 Overseas Survey)

Technical assistance:

Dispatch or experts:

Long-term experts: Greengrocery logistical functionality improvement guidance, 23 October 2000-22 October 2002

# STUDY SUMMARY SHEET

(M/P)

CSA BOL/S 125/01

<b>1. COUNTRY</b>	Bolivia		
<b>2. NAME OF STUDY</b>	The Study on Enhancement of District Health System for Beni Prefecture in the Republic of Bolivia		
<b>3. SECTOR</b>	Public Health and Medicine / Public Health and Medicine		
<b>4. TYPE OF STUDY</b>	M/P		
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	SEDES, Department Health Service in Beni Prefecture	
	<b>PRESENT COUNTERPART AGENCY</b>		
<b>6. CONSULTANT(S)</b>	System Science Consultants Inc.		
<b>7. STUDY PERIOD</b>	Apr.2001 ~ Mar.2002 11month(s) ~		
<b>8. SITE OR AREA</b>			
<b>9. MAJOR PROPOSED PROJECT(S)</b>			
<p>(1)Program in Northern Area</p> <p>Riberalta is the hub in the northern area, covering Vaca Diez District. Riberalta hospital becomes the highest health service facility in this area, and surrounded CS and PS can refer patients to the Riberalta hospital. In addition, the medical boat will serve riverside communities along Beni River. Riberalta has nurse education programs; a 16-month course for auxiliary nurses and a 5-year course for licensed nurses. In this northern area, malaria is one of the most important endemic tropical diseases. MOH intends to establish the institute of tropical medicine (CAMETROP) in Riberalta with major donors.</p> <p>(2)Program in Central Area</p> <p>Trinidad is the hub in the central area and Hospital Presidente German Busch and Hospital Materno Infantil Dr. Jesus Vargas become the highest health service facility in Cercado, Mamore, Moxos and Yacuma Districts. Medical boat procured for the Pilot Study operates along Mamore River to cover riverside communities and CS/PS covers remote area. For medical education, Trinidad has nurse education programs of 18-month course for auxiliary nurses and 5-year course of licensed nurses. In Santa Cruz, CENETROP is established for tropical medicine of Bolivia and this center has a long-term experience with Japanese experts for laboratory work and targeted south part of Beni Department.</p> <p>(3)Program in Southern Area</p> <p style="text-align: right;">San Ignacio de</p> <p>Moxos is the hub in Moxos and Marban Province as southern area Medical Boat connects communities through Isiboro River, included Santisima Trinidad where is the site of the Pilot Study. City of Cochabamba or Santa Cruz is nearer than Trinidad to refer severe patients, so that the top referral hospital does not exist in southern area. To corroborate this situation, some CS needs to be strengthened and to have the hub function for other CSs/PSs and medical boat.</p>			

<b>PRESENT STATUS</b>	<p>In Progress or In Use</p> <p>Delayed</p> <p>Discontinued</p>
<p><b>Description :</b></p> <p>(FY 2003 Domestic Survey) There is no information available on the current situations of this project.</p> <p>(FY 2004 Overseas Survey)</p> <p>1. Cause of delay Decline of the economy faced by Bolivia has made difficult to allot national budget from health sector to rural regions. In addition, having its own objective and meaning, it is impossible to adopt design adjustment to M/P.</p> <p>2. Other status</p> <p>1) Dispatch of SV and JOCV - A SV specialised in hospital management will reside from December 2003 to December 2005 to improve management capability of 2 hospital and medical centre in Trinidad. - 2 JOCVs is residing in a medical centre in Nueva Trinidad for regional development and maternity medical. This activity will continue till 2006.</p> <p>2) Grant of medical equipment to Trinidad city - Request approved in September 2004 - Procurement for installation in 2005 is in progress.</p> <p>3) Approval for Economic Grant aid for the improvement in health team in southern Beni region. - B/D team dispatched in January 2005. - There is a possibility of coordinating with other international agencies to widely cover southern area.</p> <p>(FY 2005 Domestic Survey) Currently, Grant Aid program, senior volunteer, and JOCV activities are conducted. In addition, dispatch of JOCV is planned.</p> <p>(FY 2005 Overseas Survey) Following activities has been conducted.</p> <p>1. Cooperation from Provinces, Municipalities, SEDES(Provincial health service department), local residential organizations, and local residents 2. Health Care, Hospital management, maintenance of medical facilities, human development for families and local medical. 3. Sustainable P/S 4. Establishment of survey offices 6. Rehabilitation of medical infrastructure by the municipalities, and improvement of supply condition of human resources, clerical skills, basic services such as electricity for the local residents and organizations in the targeted area. And improvement of neighborhood roads.</p>	



# STUDY SUMMARY SHEET

## (M/P)

CSA BRA/S 101/75

<b>1. COUNTRY</b>	Brazil	
<b>2. NAME OF STUDY</b>	Plano de Construcao da Nova Ligacao Ferroviario Ferroviaria	
<b>3. SECTOR</b>	Transportation / Railway	
<b>4. TYPE OF STUDY</b>	M/P	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	REFFSA, and ENGEEER
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	The Japan Electrical Consulting Co., Ltd. Pacific Consultants International (PCI)	
<b>7. STUDY PERIOD</b>	May.1975 ~ Dec.1975 7month(s) ~	
<b>8. SITE OR AREA</b>	Belo Horizonte-Itutinga-Sao Paulo; and Itutinga-Volta Redonda	
<b>9. MAJOR PROPOSED PROJECT(S)</b>	<p>Plan for constructing a new electrified railway line: the first phase, a 389km-section between Belo Horizonte and Volta Redonda; and the second phase, a 432km-section between Itutinga and Sao Paulo. The features of the first phase are: operation and rolling stock: max. speed of 60km/h; 9,000-ton hauling capacity per train; 18 trains per day in each direction when opened to traffic, and 105 in 2002 Structures and track: 171 tunnels, 86.9km; 124 bridges, 40.5km; track, broad gauge Electrification: 2 x 25kv, AT feeding system Signalling and operation control: Automatic blocking, CTC</p>	

鉄道新線建設計画

<b>PRESENT STATUS</b>	In Progress or In Use
	Delayed
	Discontinued

**Description :**

## Construction:

A U.K. firm was appointed at the international tender in 1976. However, the financial constraints caused the project a long delay. The project was completed and the operation started in 1989.

## Revised point:

The initial plan to construct the 900km-long double-track line connecting Belo Horizonte and Rio de Janeiro was modified to the 320km-long single-track line connecting Jeceaba and Barra Mansa.

## Effects:

Upon the completion of the project, the capability to transfer cargo between Belo Horizonte and Rio de Janeiro has increased by 70%.

# STUDY SUMMARY SHEET

(F/S)

CSA BRA/S 301/77

<b>1. COUNTRY</b>	Brazil	
<b>2. NAME OF STUDY</b>	Praia Mole Port Construction Project	
<b>3. SECTOR</b>	Transportation / Port	
<b>4. TYPE OF STUDY</b>	F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	PORTOBRAS
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	The Overseas Coastal Area Development Institute (OCDI)	
<b>7. STUDY PERIOD</b>	Oct.1976 ~ Aug.1977 10month(s) ~	
<b>8. SITE OR AREA</b>	The State of Espirito Santo	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
The construction of a seaport, Praia Mole was planned about 600 km north of Rio des Janeiro Port.		
Breakwater	7,100m	
Timber Berth	960m	
Coal Berth	590m	
Oil Berth	1set	
Small Size Ship Berth	350m	

プライアモーレ港建設計画

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

## Reasons for Cancellation of the project:

Based on the proposals of the JICA study, OECF pledged a loan of about US\$100 million for the construction of Praia Mole Port. However, at the 2nd Brazil-Japan Ministerial Meeting held in August 1979, the Brazilian Government requested that the loan be used for the construction of Tubarao Port, and the request was accepted. The loan agreement (11,985 million yen) was duly signed in Dec. 1981.

## Situation:

(FY 1991 Overseas Survey)

The Brazilian Government realizes that the construction of Praia Mole Port will be necessary in the future, but that it will be implemented by the private sector participation in accordance with the policy of privatization.

# STUDY SUMMARY SHEET

## (M/P)

CSA BRA/S 102/79

<b>1. COUNTRY</b>	Brazil		
<b>2. NAME OF STUDY</b>	Regional Development of the Three States: Espirito Santo, Minas Gerais and Goias		
<b>3. SECTOR</b>	Development Plan / Integrated Regional Development Plan		
<b>4. TYPE OF STUDY</b>	M/P		
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Committee of Three States	
	<b>PRESENT COUNTERPART AGENCY</b>		
<b>6. CONSULTANT(S)</b>	International Development Center of Japan (IDCJ)		
<b>7. STUDY PERIOD</b>	Jul.1978 ~ Jul.1979 12month(s) ~		
<b>8. SITE OR AREA</b>	The Cerrado Area of half a million square kilometers in the states of Minas Gerais and Goias.		
<b>9. MAJOR PROPOSED PROJECT(S)</b>			
<p>The study proposed a transportation system for exporting crops grown in inland areas. The major components are as follows.</p> <p>Railway:</p> <ul style="list-style-type: none"> <li>- Anapolis - Vitoria 1,819km (some section to be newly constructed)</li> <li>- Pirapora - Vitoria 1,113km (some section to be newly constructed)</li> <li>- Lengthening(490m) of crossing tracks at stations, installation of new train-crossing stations, and modernization of the train blocking system</li> </ul> <p>Road: Construction of new feeder roads of 49,000km (1977-85 23,000km, 1985-90 26,000km)</p> <p>Port: - Expansion of port-head silos at Port Capuaba</p> <ul style="list-style-type: none"> <li>- Installation of additional belt conveyers Storage</li> <li>- Production-area warehouses(9.83 million tons)</li> <li>- Silos excluding port-head silos (1.05 million tons)</li> <li>- Distribution-warehouses(1.92 million tons)</li> </ul>			

<b>PRESENT STATUS</b>	In Progress or In Use  Delayed  Discontinued
<b>Description :</b>  Utilization of the Study: Based on the findings of the study, the improvement and development of inland transportation facilities and the port facilities are under way in order to facilitate the agricultural development in the central region.  Others: For instance, the production of soybean in Brazil reached 20 million tons in 1989, and the contribution of the Cerrado Area has been growing. As of August 1990, the staff of Rio Doce is following up the improvement of the export corridor to transport soybean and other agricultural products to Vitoria Port.	

# STUDY SUMMARY SHEET

## (M/P)

CSA BRA/S 103/80

<b>1. COUNTRY</b>	Brazil	
<b>2. NAME OF STUDY</b>	Establishment of the Fire Fighting Training Center in Brasilia D.F.	
<b>3. SECTOR</b>	Social Infrastructure / Architecture & Housing	
<b>4. TYPE OF STUDY</b>	M/P	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Fire Headquarters of Federal District (CBDF)
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Nikken Sekkei Ltd.	
<b>7. STUDY PERIOD</b>	Nov.1980 ~ Mar.1981 4month(s) ~	
<b>8. SITE OR AREA</b>	Brasilia	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>In preparation for the establishment of the Fire-Fighting Training Center in Brasilia, the basic design of the facilities and a manual for training programs are to be compiled.</p> <p>- Basic design of the facilities: Site; 500m x 500m</p> <p>Training Bldg., Indoor Training Ground, Fire-Fighting Training Bldg. for fires caused by oil, Outdoor Fire-Fighting Training Ground, Water Storage Tank, Diving Pool, Auditorium, Outdoor Circuit Training Ground and research facilities</p> <p>- Training program A manual for training methods</p>		

消防訓練センター建設計画

<b>PRESENT STATUS</b>	In Progress or In Use
	Delayed
	Discontinued

**Description :**

On the basis of this study made by the JICA team, the Brazilian Government undertook D/D and completed the construction of the training building, the annex training building and the diving pool.

(FY 1995 Overseas Survey)

A laboratory, a complex for oil fire fighting, an auditorium and a gymnasium are to be constructed (A complex for oil fire fighting will be constructed during 1996).

Effect:

(FY 1991 Overseas Survey)

The Training Center was inaugurated in 1985, and the training of fire fighting squads commenced in 1986, utilizing the curriculum suggested by the JICA study. By 1991, 536 professional firemen were graduated from the Center.

During the period of 1987 - 1991, JICA sponsored the third-country training program, inviting a total of 125 trainees from other Latin American countries and Portuguese-speaking African countries.

The training courses have been highly acclaimed by the participants, especially with respect to its primary emphasis on preparedness rather than fire-fighting techniques and its safety precaution during the training sessions.

(FY 1997 Overseas Survey)

After the completion of the project, courses for training of trainers are held at new center.

(FY 1998 Overseas Survey)

The construction of the facilities proposed by this study have almost completed. In addition, the project have contributed to the enhancement of the fire-fighting skills of the firemen in Brazil as well as those in other country who participated in the third-country training course.



# STUDY SUMMARY SHEET

## (M/P)

CSA BRA/S 104/85

<b>1. COUNTRY</b>	Brazil	
<b>2. NAME OF STUDY</b>	Regional Development Plan of the Greater Carajas Program	
<b>3. SECTOR</b>	Development Plan / Integrated Regional Development Plan	
<b>4. TYPE OF STUDY</b>	M/P	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	SEPRE/MPO
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	International Development Center of Japan (IDCJ)	
<b>7. STUDY PERIOD</b>	Sep.1982 ~ Jul.1985 34month(s) ~	
<b>8. SITE OR AREA</b>	Three states of Para, Maranhao and Goias (a total area of 0.9 million ha and a total population of 7.12 million)	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>The study was undertaken in two phases:</p> <p>In the Phase I, the study examined the supply and demand trends in the world market up to the year 2000 over twenty-eight agricultural, livestock and forestry products and thirteen mining and manufacturing products which were considered to have high production potentials in the Greater Carajas Program Area.</p> <p>In the Phase II, the study ascertained development potentials of the selected commodities and products in the priority sub-regions of the Program Area.</p>		

大カラジャス地域総合開発計画

<b>PRESENT STATUS</b>	In Progress or In Use
	Delayed
	Discontinued

**Description :**

The findings of the Phase 1 study were utilized as basic data for policy formulation by the Ministries of Planning, Mining and Energy and Agriculture.

The private sector has been active in the development of mineral resources (e.g. iron ores), and of agricultural potentials (e.g. cereals, oilseeds and beef cattle).

JICA financed the afforestation project along the Carajas railway.

Valle de Rio Dose, the counterpart company of the study, has been active in environmental conservation and is promoting eucalyptus planting and other measures.

(FY 1991 Overseas Survey)

The master plan was incorporated into the National Development Plan, and the following studies were undertaken.

- 1) Carajas Railway Development
- 2) Integrated Development in the Northern and Eastern Carajas  
External assistance is needed in the following areas.
  - 1) Industrial development (metallurgy & wood processing)
  - 2) Agricultural development (tropical forests and cereals in serrado)
  - 3) Social development for low-income households (small-scale agriculture and labor-intensive industries)

(FY 1995 Overseas Survey)

Agriculture: Cereal Production at Balsas and Pedro Afonso.

Mineral Development: Development of iron ore, manganese and copper in the near future.

Paper Industry (Forest Development): CELMAR will be running by the year 2001.

(FY 1997 Overseas Survey)

Studies as follows have been conducted by SEPRE / MPO at the region.

- 1986-1990 Carajas ~ Sao Luis Region along the Railway Line M/P  
Components / Regional infrastructure, Agriculture, Steel manufacture  
Cost / 2mil.US\$
- 1993-1994 Study of Alternative Energy for Metallurgical Industry  
Components / Metallurgy, Reforestation, Charcoal, EIA (special emphasize on EIA)  
Cost / 0.6mil.US\$
- 1990-1993 Serrado Grain, Pole Study  
Components / Investment promotion for grains for export  
Cost / 0.1mil.US\$

Situation:

(FY 1997 Overseas Survey)

The economic crisis in 1985-1995 had caused decline in public sector investment.

Rising concern to environmental problem in Amazon area has prejudiced against investment for export-oriented private projects.

# STUDY SUMMARY SHEET

## (M/P+F/S)

CSA BRA/S 201B/87

<b>1. COUNTRY</b>	Brazil		
<b>2. NAME OF STUDY</b>	Itajai River Basin Flood Control Project		
<b>3. SECTOR</b>	Social Infrastructure / River & Erosion Control		
<b>4. TYPE OF STUDY</b>	M/P+F/S		
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Secretaria de Desenvolvimento, Economico, Cientifico e Tecnologia	
	<b>PRESENT COUNTERPART AGENCY</b>		
<b>6. CONSULTANT(S)</b>	Nippon Koei Co., Ltd. Pacific Consultants International (PCI)		
<b>7. STUDY PERIOD</b>	Apr.1986 ~ Jan.1988 21month(s) ~		
<b>8. SITE OR AREA</b>	<M/P> Itajai river basin with a catchment area of 15,220 sq.km <F/S> Blumenau-Gaspar river stretch located at 70km upstream from the river mouth		
<b>9. MAJOR PROPOSED PROJECT(S)</b>			
<M/P>			
River improvement of 73km out of the total river course of 250km, in order to protect urban centers along the river.			
Promising Project	Provisional plan	Mid-term plan	Long-term plan
Design Flood	10-year	25-year	50-year
River Improvement			
- Blumenau-Gaspar stretch	24.5km (E)	24.5km (E)	24.5km (E)
- Floodway and downstream of Itajai Mirim	14.5km	14.5km (E)	14.5km (E)
- Rio do Sul-Lontras and, Ituporanga stretches	17.4km (E)	17.4km (E)	17.4km (E)
- Brusque stretch	9.0km (E)	9.0km (E)	9.0km (E)
- Ilhota stretch	---	---	3.7km (E)
- Ascurra stretch	---	---	4.0km (E)
Note; "E" means enlargement of channel.			
<F/S>			
River improvement by river channel widening and river dredging, and urban drainage works were proposed in the following area:			
- River improvement for main Itajai river (32km) and major tributaries (18km in total)			
- Urban drainage in Blumenau (drainage area; 19.24sq.km)			

イタジャイ河流域治水計画

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed Partially Completed Implementing Processing	Delayed or Suspended  Discontinued or Cancelled
<p><b>Description :</b></p> <p>Subsequent Studies: D/D implemented by the Brazilian government</p> <p>Finance: the government fund</p> <p>Construction: 80% of construction was completed by 1990. However, due to the economic difficulties, the construction was suspended.</p> <p>Progress after 1990: 1990 The implementing agency was changed from DNOS to SDR. Jan,1994 The development right of Itajai River now belongs to the Santa Catarina provincial government, which is also the implementing agency of this project.</p> <p>(FY 1991 Overseas Survey) The project was initially given high priority in the national development strategy and is still high priority project.</p> <p>(FY 1994 Domestic Survey) While taking into account the domestic economic situation, the Santa Catarina provincial government expects to receive the financial assistance of the Japanese government.</p> <p>* Refer to "Flood Control Project in the Lower Itajai River Basin (BRA/S 302/89)"</p>		

# STUDY SUMMARY SHEET

(F/S)

CSA BRA/S 302/89

<b>1. COUNTRY</b>	Brazil	
<b>2. NAME OF STUDY</b>	Flood Control Project in the Lower Itajai River Basin	
<b>3. SECTOR</b>	Social Infrastructure / River & Erosion Control	
<b>4. TYPE OF STUDY</b>	F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Ministerio da agricultura, departamento nacional de obras de saneament
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Nippon Koei Co., Ltd. Pacific Consultants International (PCI)	
<b>7. STUDY PERIOD</b>	Oct.1988 ~ Mar.1990 17month(s) ~	
<b>8. SITE OR AREA</b>	Lower Itajai river basin with catchment area of 601sq.km and population of 147,000	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>1.Construction of floodway(9km in length, design flood of 1230cu.m/s)</p> <p>2.River improvement work in Itajai river (23km in length, design flood of 2770cu.m/s)</p> <p>3.River improvement work in Itajai Mirim river (8km in length, design flood of 65cu.m/s)</p> <p>4.Improvement work of existing short-cut channel (4km in length, design flood of 670cu.m/s)</p> <p>5.Urban drainage works (construction of regulating ponds, pump stations, etc.)</p>		

イタジャイ河下流域治水計画

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

Reasons why the project has come in to practice:

(FY 1998 Overseas FU Survey)

- 1.The government has shown a clear policy toward flood control.
- 2.Itajai River Channel Committee was established.
- 3.An environment was developed for implementation of the project due to the organizational reform inside executive of Santa Catarina State Government.

Subsequent Studies:

(FY 1997 Domestic Survey)

Aug.1997~Feb.1998 EIA

Fund of Santa Catarina State Government approx. 1.5 mil.US\$.

Finance:

(FY 1997 Domestic Survey)

26 Aug. 1996 E/N Japan's ODA Loan 17,596 mil.yen (Flood Control Project in the Lower Itajai River Basin)

(FY 1997 Overseas Survey)

Government budget R. 129,970 mil

\* Contents: Construction works for rehabilitating Itajai River.

Construction:

(FY 1999 Domestic Survey)

Construction has not been commenced yet.

Detail:

(FY 1991 Overseas Survey)

The project implementation is somewhat delayed owing to the on-going reorganization of the Federal Government. The priority of the project remains high and the urgent need of implementation is recognized. The Government is working on the budget allocation to facilitate the implementation.

(FY 1994 Overseas Survey)

The Santa Catarina provincial government has been expecting the financial assistance by the Gov't of Japan, and examining the request taking into account the domestic economic and political situations.

(FY 1995 Overseas Survey)

The priority of this project remains high among Federal Government and the provincial government. The negotiation between the provincial government and related NGO has been started.

(FY 1997 Overseas Survey)

Some proposed countermeasures have been taken through projects of Santa Catarina State.

(FY 1998 Domestic Survey)

It is planned to decide the implementation of the project, on a basis of the results of EIA.

(FY 1999 Overseas Survey)

The new state government that took place in Jan. 1999 has clearly manifested its political will on project implementation.

# STUDY SUMMARY SHEET

## (M/P+F/S)

CSA BRA/S 202B/90

<b>1. COUNTRY</b>	Brazil	
<b>2. NAME OF STUDY</b>	Disaster Prevention and Restoration Project in Serra do Mar, Cubatao Region	
<b>3. SECTOR</b>	Social Infrastructure / River & Erosion Control	
<b>4. TYPE OF STUDY</b>	M/P+F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Secretaria de Meio Ambiente (SMA), Instituto de Pesquisas Tecnologicas do Estado de Sao Paulo (IPT), and others (CETESB, DAEE, IBt).
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Nippon Koei Co., Ltd. NIKKEN Consultants, Inc.	
<b>7. STUDY PERIOD</b>	Nov.1989 ~ Jan.1991 14month(s) ~	
<b>8. SITE OR AREA</b>	Serra Do Mar, Cubatao Region (252 sq.km) in the State of Sao Paulo	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<M/P>		
1) Sediment Run-off Prevention Plan...32 sabo dams, 11 channel works with total length of 5.7 km.		
2) Flood Prevention Plan		
1.Cubatao River Improvement..discharge tunnel 600m,river improvement 6.7km.		
2.Moji River Improvement...river improvement 9.5m		
3) Forest Restoration Plan...20,000 seedlings plant in 20 replantation areas. (target year 2000)		
4) Non-structural Measures...hazard maps, etc.		
<F/S>		
1) Sediments Run-off Prevention Plan...9 sabo dams, designed for the probable sediment discharge of about a 25-year return period, which is approximately equal to the post maximum discharge of 1985.		
Six (6) channel works including ground (downstream from Sabo dams site with a length of about 3km in total)		
2) Moji River Improvement Plan...river/improvement of 4.5km for 10-year probable flood		
3) Forest restoration plan...20,000 seedlings (height 0.4-1.0m)		

クバトン地域海岸山脈災害防止復旧計画

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

## Finance:

(FY 1999 Overseas Survey)

1.6 mil. US\$ were spent from 1994 to 1998 for dredging works.

## M/P

(1) Non-structural Measures such as hazard maps development

(FY 1998 Overseas Survey)

Implemented

(2) Sediment Run-Off Prevention Plan

The Brazilian government is now considering the possibility to receive the financial assistance from either the World Bank or the Japanese government.

(3) Flood Prevention Plan

The Brazilian government is planning to implement the project with own fund.

(FY 1998 Overseas FU Survey)

Improvement of Moji River is proceeding faster than as scheduled.

(FY 1999 Overseas Survey)

Dredging of 739,000m<sup>3</sup> of Moji River, Piaguera River and Cubatao River were implemented from 1994 to 1998.

(4) Forest Restoration Plan

(FY 1998 Overseas FU Survey)

Afforestation works are proceeding as scheduled, however, landslide prevention measures are still important as current measures are not prudential.

(FY 1999 Overseas Survey)

Implantation of 3 experimental forests are implemented for research and studies(1992-2004) on atmospheric pollution influence.

## Detail

(FY 1991 Overseas Survey)

Secretaria de Meio Ambiente (SMA) and relating agencies have been making efforts to implement the projects proposed by M/P.

Although priority of this project is high, the financial arrangement for the implementation has been delayed due to the political and administrative reasons.



# STUDY SUMMARY SHEET

## (M/P)

CSA BRA/S 105/91

<b>1. COUNTRY</b>	Brazil	
<b>2. NAME OF STUDY</b>	Urban Transport in Belem	
<b>3. SECTOR</b>	Transportation / Urban Transportation	
<b>4. TYPE OF STUDY</b>	M/P	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	EMTU SEPLAN
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Chodai Co., Ltd. Yachiyo Engineering Co., Ltd.	
<b>7. STUDY PERIOD</b>	Oct.1989 ~ Jun.1991 20month(s) ~	
<b>8. SITE OR AREA</b>	Belem/Ananindeua	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>(1)Medium Term Plan(1990-2000)</p> <p>1) Trunk Road Construction &amp; Improvement: 12 projects, US\$180 million</p> <p>2) Construction of Public Bus Facilities: 21 projects, US\$30 million</p> <p>3) Improvement of Intersection, Road Width Widening, US\$1.5 million</p> <p>(2) Long term Plan (2001-2010)</p> <p>1) Trunk Road Construction &amp; Improvement: 10 projects, US\$160 million</p> <p>2) Construction of Public Bus Facilities: 10 projects, US\$10 million</p> <p>3) Traffic Administration Facility improvement: US\$6 million</p>		

ベレン市都市交通計画

<b>PRESENT STATUS</b>	<p>In Progress or In Use</p> <p>Delayed</p> <p>Discontinued</p>
<p><b>Description :</b></p> <p>(FY 1997 Overseas Survey)  Review study is necessary because seven years have passed since the completion of the study and territory composition of RMB Belem Metropolitan Region has been changed in 1996. Data and information obtained through the study have been utilized for formulation of RMB strategy and so on.  The urban transport is one of the top priority matters of the Government because of aggravation of traffic problem in big cities.  Reasons that F/S has not been carried out are 1- extinguishment of EBTU which was responsible for urban transport at national level, by administrative reform, 2- CTBel was established when administration of RMB transport system was transferred to Belem Municipality, but CTBel did not incorporate the projects proposed by the study into its action plan.</p> <p>(FY 1998 Overseas FU Survey)  Although the finance of Para State is stable at present(as of May 1999), it is impossible to implement the project with only the urban development fund and CTBel fund. Therefore, financial assistance by BINDES(Social and Economic Development Bank) is required. However, as a measure against recent economic crisis, the budget for plant and equipment investment in public sector is tighten and as a effect the possibility of implementing the project is low in medium term. At present, BINDES is considering to implement this project as a loan by private initiative. In order to realize an early implementation of main projects, the Brazil Cooperation Agency is requesting JICA to conduct a review survey on PDTU.</p> <p>(FY 2000 Domestic Survey)  It is expected that the Review Study by JICA (Jun. 2000- Mar. 2001) will promote new development.</p> <p>Construction:  1.Trunk Road Construction &amp; Improvement  The Construction of Belem Highway was started after its name was changed to "Workers Highway" and a little modification was made to the initial plan like the utilization of the existing stretches.</p> <p>(FY1994 Domestic Survey)  The movement for implementation of the study is not yet realized, although the improvement of some road sections, that the M/P recommended, were carried out by the Local Government's efforts.</p> <p>(FY 1998 Overseas FU Survey)  The construction of flyover in Almirante is about to start at last after the discussion with state government.  The extension project of Purimeiroddenburo Street is under construction by CTBel under FY 98 budget.</p> <p>(FY 1999 Overseas Survey)  A Part of Belem Highway was developed.  Pedro Miranda Road(Pedro Alvares Cabral-Mendara residential area): implementing  Coqueiro Road, Tapan Road, Bengui Road: implemented</p> <p>2.Construction of Public Bus Facilities  It is considered difficult to implement the proposed Terminal projects due to financial/political reasons. There is a perspective that a private firm will establish a terminal at the place near one proposed in this Study.  The first Terminal is located on BR-316 Highway and will be operated by Marituba Enterprise.  The assistance of JICA is desired for the smooth implementation of the project.</p> <p>(FY 1999 Overseas Survey)  4 integrated bus terminals were constructed by bus company.  1.Two platforms were constructed on both sides of Ananindeua City and BR316 Highway.  2.Coqueiro station was constructed near 40HORA Road in Ananindeua City.  3.Marex station was constructed on Julio Cesar Ave., which is near to Belem Airport.</p> <p>Background:  Para State and Belem Municipality are anxious to execute the feasibility study continuously. However, the Department of the Central Government as for the urban transport is not yet determined. The request for feasibility study has not arrived at the ABC, the window for technical cooperation.  Because of the change of the Brazilian Central Government Administration, the Government policy for technical cooperation might change. However, no movements are observed until now.</p> <p>(FY 1995 Overseas Survey)  The executing agency has been changed to CTBel (Urban Transport Company of Belem). However, due to the improper Transference of the duties concerning this project, there are some difficulties to continue the project.</p>	

# STUDY SUMMARY SHEET

## (M/P)

CSA BRA/S 101/93

<b>1. COUNTRY</b>	Brazil	
<b>2. NAME OF STUDY</b>	Recuperation of the Guanabara Bay Ecosystem	
<b>3. SECTOR</b>	Administration / Environmental Problems	
<b>4. TYPE OF STUDY</b>	M/P	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	FEEMA(Fundacao Estadual de Engenharia do Meio Ambiente)
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Kokusai Kogyo Co., Ltd.	
<b>7. STUDY PERIOD</b>	Mar.1992 ~ Mar.1994 24month(s) ~	
<b>8. SITE OR AREA</b>	Guanabara bay(400 km <sup>2</sup> ) and its basin(4,000km <sup>2</sup> )	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
Eastern Basin: Primary STP + Tertiary STP, Joint TP for Sea-product processing factory		
Northeastern Basin: Stabilization Pond, Land use control		
Northwestern Basin: Primary STP + Stabilization Pond, Land use control, Joint TP for Petrochemical factories		
Western Basin: Primary STP + Ocean outfall system, Imp. of Sanitary services in Favela		

グァナバラ湾水質汚濁防止計画調査

<b>PRESENT STATUS</b>	In Progress or In Use
	Delayed
	Discontinued

**Description :**

(1) Pre-condition project: Sewerage System Construction (IDB/OECF)

1. Western Basin

Finance:

Mar. 1994 L/A 31,475 mil. Yen

(Guanabara Basin Sewerage System Construction Project)

Construction:

(FY 1996 Domestic Survey)

Jun. 1994-1999 Construction of three primary STP. Consultant / PCI

2. Eastern Basin

(FY 1997 Domestic Survey)

Finance: IDB

Construction: under construction.

IDB plants to fund Phase II. OECF has not decided yet to fund Phase II.

Effect:

(FY 1996 Domestic Survey)

-Improvement of sanitary condition in the target area.

-Recuperation of ecosystem inside the Bay

-Upgrade of the value of target area as tourist and recreation area.

Impact on Surrounding Area:

(FY 1996 Domestic Survey)

If this project is concluded with the improvement of Sewerage system and the primary treatment, the sewage will be released to the Bay. As a result, the worsening of water quality will not be halted. Thus, it is predicted to be difficult to recuperate the ecosystem, which was the primary aim of this Project.

Remaining Project:

(FY 1997 Domestic Survey)

Primary STP in the north-western basin will be constructed within Sewerage System Construction Phase II.

(2) JICA proposed projects

Subsequent Study:

The Study Team recommended to FEEMA to implement the F/S for the countermeasure examination to reduce inflow load and stored load of the Eastern Basin. FEEMA presented the planning form of F/S based on the recommendations in June, 1994 to ABC (Brazilian Cooperation Agency). ABC requested to JICA to implement the F/S planned by FEEMA in July, 1994.

(FY 1995 Domestic Survey)

The Embassy of Japan in Brazil conveyed above-mentioned official request to the Ministry of Foreign Affairs of Japan. However, the Ministry has not taken up this project as yet as the Ministry worries about some conflict with the Sewerage Project of IDB which is implementing at the eastern basin of the Guanabara Bay.

Kokusai Kougyo Co., Ltd. have explained to JICA that there is no such a kind of problem about the conflict on the occasion of JICA's hearing held on May, 1995. On the other hand, the Local Government of Rio de Janeiro had requested to Japanese side to implement the project in early stage.

(FY 1997 Domestic Survey)

Department of Construction, Rio de Janeiro State has submitted a request to Japanese Government for a subsequent study. Target area has been enlarged from eastern basin to the whole basin.

(FY 1998 Domestic Survey)

The request for F/S by JICA has not been approved since it is afraid that this F/S will compete with the phase I of the IDB/OECF project which is under implementation.

Background:

The Province of Rio de Janeiro plans to become a candidate of the 2004 Olympic. At present, it gives the first priority to the improvement of the sewerage system in Rio and the surrounding area and desires to realize it in Phase II of IDB/OECF Project. Phase II is planned to be commenced in 2000. Therefore, a development Study to determine the project content in Phase II must be implemented in 1998-1999. The Provincial government is presently examining possibilities to implement it with the JICA assistance. While IDB plans to finance the Phase II, OECF has undecided.

(FY 1995 Overseas Survey)

This Study was utilized to establish the strategy plan for recuperation of the Guanabara Bay ecosystem. Especially the result which says the control of insolubility is important for water improvement suggests the review of the project. In the Phase I of IDB project, removal of Phosphours has been considered, then removal of insoluble material will surely be included in the Phase II.

(FY 1997 Domestic Survey)

Even though the Phase I of Sewerage System Construction (IDB/OECF) is completed, 39% of sewerage will be primary treated and 17% will be secondary treated out of whole sewerage produced in the basin, leaving 44% untreated.

Moreover, both primary and secondary treated sewerage will be discharged into the bay causing rather deterioration of quality of water.

Therefore, Phase II to reduce the area where sewerage is not treated and raise the ratio of second and third treatment is necessary.

JICA study (M/P) team recommended that treated sewerage must be discharged into out of the bays and examined about construction of facilities. In addition to these recommendations, measures against the sources of emission such as factory, slums and so on must be examined by F/S.

IDB understands the effectiveness of the pollution simulation model used by JICA M/P survey and requested to prepare the Phase II plan utilizing the model.

(FY 1997 Overseas Survey)

The state government of Rio has started negotiation with international financial organizations, especially IDB and OECF, for the implementation of the Phase 2.

(FY 1998 Overseas Survey)

The outputs of this study is utilized since it corresponds the policy of the government of Rio de Janeiro.

# STUDY SUMMARY SHEET

(F/S)

CSA BRA/S 306/94

<b>1. COUNTRY</b>	Brazil	
<b>2. NAME OF STUDY</b>	Navigation of the Parnaiba River Basin	
<b>3. SECTOR</b>	Transportation / Port	
<b>4. TYPE OF STUDY</b>	F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Secretaria de Planejamento do Estado do Piaui (SEPLAN, ABC)
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Pacific Consultants International (PCI)	
<b>7. STUDY PERIOD</b>	Dec.1992 ~ Mar.1995 27month(s) ~	
<b>8. SITE OR AREA</b>	Upper reaches to lower reaches of the Parnaiba River (approx. 1,400m)	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>Water level of the Parnaiba River changes 1.5 to 2.0m during the dry and the rainy season. The ship transportation in between upper reaches to Teresina during the rainy season and in between upper reaches to Floriano during the dry season are recommended respectively. In order to materialize this plan, as for the major works, the followings will be necessary.</p> <p>(1)Renovate the lock at Boa Esperanca.  (2)Renovate the river ports (7 to 8 ports from Sta. Filomena in upper reaches to Teresina in middle reaches).  (3)Shipbuilding (500DWT X 30 ships)  (4)Arrange the beacons along the routes.  (5)Establish the ship-transportation administrative office.  (6)Arrange the pilotage system.</p>		

パルナイバ川水系船舶航路整備計画調査

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

## 1. The Pilot Project

On March, 1995, when this survey work completed, it has been requested to implement the pilotage works, which was recommended by the survey report, before the commencement of full-scaled ship transportation. In order to implement the pilotage works, an organization for the ship-transportation along the Parnaiba River is going to be established. A VIP, who has been interested in this ship-transportation, has been elected and established a good connection with the Central Government. According to some information, he already got some of budget allocation for this project. However, more details are not available.

(FY 1995 Overseas Survey)

The Pilot Project is on approval stage by the Federal Government.

(FY 1996 Domestic Survey)

The Brazilian government has approved the implementation of the pilot project. The counterpart has an intention to request a loan to the Japan Export and Import Bank.

(FY 1996 Overseas Survey)

The request was submitted to JICA to implement a study to determine ships suitable to the operation in the Parnaiba River Basin.

(FY 1997 Domestic Survey)

Federal Government considers that the project is indispensable for Serrado agricultural development. Therefore, the project will be implemented under cooperation of Piaui State, Maranhao State and Tocantin State.

The Government has requested a loan to Japan's Ex.Im.Bank for the pilot project (construction of a pilot vessel)

(FY 1997 Overseas Survey)

Request for loan with amount of 14.8mil.yen for Pilot Project was submitted to EXIM.Bank. of Japan in Sep.1996.

0.5mil.US\$ will be allocated from the government budget. Implementation period is 2 years.

(FY 1998 Overseas FU Survey)

Not only the economic development of Piaui State can be expected but also cost reduction in transportation by water, and improvement of social environment in the area of approx.1,500km<sup>2</sup> are expected. However, the project has not proceeded as state budget is not allocated yet.

(FY 1999 Overseas Survey)

In Sep. of 1999, the government of Brazil has decided to appropriate the pilot project expenditure in the national budget of 2000.

The government of Brazil has not yet received an answer of financing from Japan's Ex.Im. bank.

## 2 The Rout Arrange in River Basin

(2000 Domestic Survey)

Piaui State requested the governmental budget (395mil US \$).

# STUDY SUMMARY SHEET

(M/P)

CSA BRA/S 106/95

<b>1. COUNTRY</b>	Brazil	
<b>2. NAME OF STUDY</b>	The Utilization of Water Resources in Parana State	
<b>3. SECTOR</b>	Social Infrastructure / Water Resources Development	
<b>4. TYPE OF STUDY</b>	M/P	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Parana State Urban Development Department (until Jan.1995) Parana State Plan Adjustment Department (after Jan.1995)
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Yachiyo Engineering Co., Ltd. Nippon Koei Co., Ltd.	
<b>7. STUDY PERIOD</b>	Mar.1994 ~ Dec.1995 21month(s) ~	
<b>8. SITE OR AREA</b>	Throughout Parana State (strategy) Iguacu and Tibagi river basin (M/P)	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>1.Studies with urgency            1)Critiba Metropolitan Water Environment Integrated Plan Study(Regional Plan and F/S)            2)Uniao da Vitoria Flood Protection, F/S            3)Londorina Water Supply /Drainage, F/S            4)Cascavel Water Supply /Drainage, F/S            5)Ponta Grossa Water Supply /Drainage, F/S            2.M/P on main rivers' basin excepting pilot area            3.Elaboration or review on social economic, regional, industrial and traffic development plan based on this study.            4.Strategy and M/P based on this study and review of these plans every 5 years.</p> <p>*PROJECT COST            1)Parana US\$ 6,536 mil. 2)Iguacu US\$ 2,919.9 mil.            3)Tibagi US\$ 1,610.9 mil.</p>		

パラナ州水資源利用計画

<b>PRESENT STATUS</b>	In Progress or In Use
	Delayed
	Discontinued

**Description :**

## Subsequent Study:

(FY 1998 Domestic Survey)

Although "Londorina Water Supply/Drainage (F/S)" was requested as a JICA development study project that was given first priority by Brazilian government, it was not adopted. After that, there has not been any concrete progress.

## Utilization of the Outputs:

(FY 1997 Overseas Survey)

This M/P will be referred for new model of water resources management. Moreover, the results of the study have been incorporated into Curitiba Metropolitan Regional Plan.

(FY 1998 Overseas FU Survey)

Many organizations are related to this project as it is a large-scale project that includes various water resources utilization plans. The project is proceeding in good order and the followings are the main reasons for that:

- 1.The current policy of Parana State government will be continued until 2002.
- 2.The positive correspondence of Parana State government's staffs.
- 3.The existence of CCPG
- 4.The state government's positive policy toward industrialization and its effects.

(FY 1999 Overseas Survey)

The study results are utilized as a basic reference for water resources related activities with high credibility.

## Other:

(FY 1997 Overseas Survey)

Re-evaluation of the project and continuous technical cooperation are necessary to elaborate plans in other areas. The experience obtained through this project will be utilized by other states that have requested for similar project.

(FY 2001 Domestic Survey)

The government of Brazil submitted the request on "Londorina Water Supply/Drainage (F/S)" which was the proposed project by the Study, as the Development Study by JICA in 1998, however, the Japanese government did not adopt it.

## Related project:

Parana State Environment Improvement Plan (PARANASAN)

## Finance:

8 Jan.1998 L/A 23.7 bil yen (Parana State Environment Improvement Plan (PARANASAN))based on M/P formulated by Parana State.

## \*Contents of project

- 1.Water Supply/Drainage Improvement at Curitiba Metropolitan and its suburb
- 2.Construction of noxious agricultural chemicals waste disposal facility

## Construction:

(FY 1998 Domestic Survey)

Oct.1998 Consultant contract was concluded.

Oct.1999 Contractors are to be selected.

(FY 2005 Domestic Survey)

Consideration for an implementation of the project is planned, taking into account the result of an election of provincial governor scheduled on Oct. 2006.

L/A has been concluded on January 1998 for a project related to the project proposed in the study.

PARANASAN implemented by a Yen loan from JBIC is still in progress.



# STUDY SUMMARY SHEET

## (M/P)

CSA BRA/A 120/98

<b>1. COUNTRY</b>	Brazil	
<b>2. NAME OF STUDY</b>	Integrated Development Study for Agriculture and Livestock in Tocantins State	
<b>3. SECTOR</b>	Agriculture / (Agriculture in) General	
<b>4. TYPE OF STUDY</b>	M/P	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	State Secretariate of Agriculture
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Pacific Consultants International (PCI)	
<b>7. STUDY PERIOD</b>	Feb.1997 ~ May.1998 15month(s) ~	
<b>8. SITE OR AREA</b>	Entire area of the state of Tocantins(278,000km <sup>2</sup> )	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>1.North Region Agricultural and Rural Development Project To establish land use plan and to formulate agricultural production diversification plan including sustainable grains production plan, livestock sector modernization plan and agricultural products marketing plan</p> <p>2.Sustainable Agriculture Promotion Program Development of environmental monitoring technologies, technologies development related with sustainable agricultural activities</p> <p>3.Environmental Conservation Program Environmental Conservation, Green Village</p>		

トカンチンス州農牧総合開発計画

<b>PRESENT STATUS</b>	In Progress or In Use
	Delayed
	Discontinued

**Description :**

(FY 1999 Domestic Survey)

1. North Region Agricultural and Rural Development Project

Subsequent Study:

The state government of Tocantins requested the government of Japan for the implementation of M/P and F/S(Oct.15,1998). In response to this request, a preliminary mission was dispatched by JICA at the end of November, 1999 to conclude the Scope of Services for the study.

# STUDY SUMMARY SHEET

## (Basic Study)

CSA BRA/A 502/98

<b>1. COUNTRY</b>	Brazil	
<b>2. NAME OF STUDY</b>	The Fishery Resources Study of the Amazon and Tocnantins River Mouth Areas	
<b>3. SECTOR</b>	Fishery / Fishery	
<b>4. TYPE OF STUDY</b>	Basic Study	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Museu Paraense Emilio Goeldi (MPEG), Instituto Brasileiro do Meio Ambiente edos Recursos Naturas Renovaveis (IBAMA).
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Sanyo Techno Marine, Inc.	
<b>7. STUDY PERIOD</b>	Mar. 1996 ~ Jun. 1998 27month(s) ~	
<b>8. SITE OR AREA</b>	Amazon and Tocnantins River Mouth Areas.	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
Recommended re-study of the fishery resources to obtain accurate data.		

アマゾン河口水産資源調査

<b>PRESENT STATUS</b>	<p style="text-align: center;">In Progress or In Use</p> <p style="text-align: center;">Delayed</p> <p style="text-align: center;">Discontinued</p>
<p><b>Description :</b></p> <p>(FY 1999 Overseas Survey)  Three-month prohibition of commercial fishing during the summer where was proposed by this Study is under discussing in IBAMA. Studies on growth and fisheries of other species besides the seven species of this Study are on-going.</p> <p>(FY 2000 Overseas Survey)  Based on proposal in the study, the following issues are examined for ministerial ordinances. After a discussion with CONEPE, these ordinances would be proclaimed.</p> <ol style="list-style-type: none"> <li>1. Three-month prohibition of commercial fishing during the summer</li> <li>2. Prohibition of commercial fishing beyond 15,000 ton of fish catch</li> </ol> <p>As to researches, CEPNOR has been monitored commercial fishing in the estuaries of Amazon and Para River. In 2000, 8 field surveys were carried out to check volume of fish catch, waste volume, and fish length. In 2001, CEPTOR will enforce its research activities focusing on piramutaba fishing.</p> <p>(FY 2001 Domestic Survey)  The Study has been implementing continuously. The proposed contents were the promotion of fisheries education, the education and management of fisheries community, the organization and management of fisheries administration and the socio-economic infrastructure improvement on the fisheries industry. However, the progress situation is not known.</p>	

# STUDY SUMMARY SHEET

## (M/P+F/S)

CSA BRA/S 216/99

<b>1. COUNTRY</b>	Brazil	
<b>2. NAME OF STUDY</b>	The Study on Water Resources Development at the State of Sergipe	
<b>3. SECTOR</b>	Social Infrastructure / Water Resources Development	
<b>4. TYPE OF STUDY</b>	M/P+F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	State Secretariat of Planning, Science and Technology, the State of Sergipe, the Federative Republic Brazil (SEPLANTEC)
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Yachiyo Engineering Co., Ltd.	
<b>7. STUDY PERIOD</b>	Jun.1998 ~ Mar.2000 21month(s) ~	
<b>8. SITE OR AREA</b>	M/P: The State of Sergipe F/S: Around Largart City and Itabaiana City in the State of Serigipe	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
M/P: ( Implementation period: Jan. 2000-Dec.2019)		
1. Water resources Development Project		
1) Industrial and Municipal Water Supply Project: Integrated System(10 systems, Water Amount Developed 379,399 m3/day)		
2) Industrial and Municipal Water Supply Project: Integrated System(35 systems, Water Amount Developed 158,351 m3/day)		
3) Small Rural Water Supply Project(Water Amount Developed 9,353m3/day)		
4) Irrigation Water Supply Project(Irrigation Area 4,553ha)		
2. Water Resources Management Program		
Institution Plan, Operation and Management, Management Improvement of Water Supply, Operation against Drought		
F/S: (Implementation period: Jan. 2002-Dec.2006)		
1) Vaza Barris Multi-purpose Dam		
2) Domestic/ Industrial Water Supply Facilities(Itabaiana City Area)		
3) Domestic/ Industrial Water Supply Facilities(Lagarto City Area)		
4) Irrigation Water Supply Facilities		

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

(FY 2000 Domestic Survey)

The State of Sergipe submitted a consultation letter to SEAIN (Secretariat of International Affairs, the Federative Republic of Brazil) to promote the implementation of the F/S project. At Jan. 2000, the State has not yet accepted the approval from SEAIN. The PROAGUA project (Improvement Project of Water Supply Facilities) loaned by World Bank has been implemented in Itabaiana and Lagarto areas. Besides, the State also plans to promote Xingo Dam Pipeline Project, which was listed up as priority project in the Master Plan but does not included in the F/S project.

(FY 2001 Domestic Survey)(FY 2002 Domestic Survey)

Although the State Government established the organization to promote the project and commenced to take the necessary procedures for loan by OECF (present JBIC), the Federal Government denied the loan because of the financial situation of the State.

(FY 2003 Domestic Survey)

Application procedure for the JBIC Loan, which had been launched by the Sergipe State government in FY 2001, was rejected by the federal government on the ground of the poor financial condition of the state. On the other hand, there are moves for construction of the San Francisco Pipeline (a project proposed in the master plan) with the objective of water supply in Aracaju City, the state capital, with the change of governor of Sergipe State in 2003 as a turning point.

While the need of the project is large, improvement of the financial condition of the Sergipe State government is the first prerequisite for the implementation. The PROAGUA project implemented by the financing by the World Bank is expected to improve the water shortage condition in Itabaiana - Lagarto region slightly but it will not bring about a radical improvement of a water shortage condition. Therefore priorities of the "Vaza Barris Water Resources Development Project" and the "Sinningo Dam Pipeline Project", which are JICA's proposed projects, are extremely high. However, when considering the financial condition of the state, continuance of smaller scale projects such as the "municipal independent water supply system improvement project", which has been proposed in the JICA's study, needs to be considered.

(FY 2005 Domestic Survey) (FY 2005 Overseas Survey)1

According to the project report, projects mentioned below are being implemented for water resource planning, proposal for basin areas, river scheme, and etc.

1. Water resource plan by the state, January 2006-July 2007
2. River scheme by the state in the CONAMA resolution 20/97, January 2006-January 2008
3. Basin plan of the Piaui, Sergipe, and Japarutuba river, July 2001-May 2006
4. Renewal of water balance of the state, May 2001-December 2002
5. Instalment of water resource information system, March 2001-December 2007

Part of the projects has been financed by the IBRD.

# STUDY SUMMARY SHEET

(M/P)

CSA BRA/S 104/00

<b>1. COUNTRY</b>	Brazil	
<b>2. NAME OF STUDY</b>	The Study on the Environmental Management of the Hydrographic Basin Patos and Mirim in Republic of Brazil	
<b>3. SECTOR</b>	Administration / Environmental Problems	
<b>4. TYPE OF STUDY</b>	M/P	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	SCP (Secretario da Coordinacao e do Planejamento)
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Kokusai Kogyo Co., Ltd. Pacific Consultants International (PCI)	
<b>7. STUDY PERIOD</b>	Oct.1998 ~ Sep.2000 23month(s) ~	
<b>8. SITE OR AREA</b>	Partial area of Patos and Mirim Lakes Basin in Rio Grande de Sul	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>1) Sewage Treatment Project (Foreign Cost - Initial Cost 30,470,000 US\$, Local Cost-Maintenance Cost): Construction of Domestic Wastewater Collection and Treatment Facilities for Five Cities: Pelotas, Rio Grande, Sao Lourenco Do Sul, Camaqua, Tapes</p> <p>2) Solid Waste Disposal Project (Foreign Cost - Initial Cost 8,793,000 US\$ Local Cost-Maintenance Cost) Construction of Domestic Solid Waste Collection and Disposal Facilities for Five Cities: Pelotas, Rio Grande, Sao Lourenco Do Sul, Camaqua, Tapes</p> <p>3) Basin Conservation Project (Foreign Cost - Initial Cost 12,040,000 US\$, Local Cost-Maintenance Cost) Introduction of Environmental Conservation Oriented Agriculture to Cangucu Area. Prevention of Soil Erosion and Soil Runoff in Sutil and Duro Rivees.</p>		

パトス・ミリン湖沼地域環境回復・保全計画

<b>PRESENT STATUS</b>	<p style="text-align: center;">In Progress or In Use</p> <p style="text-align: center;">Delayed</p> <p style="text-align: center;">Discontinued</p>
<p><b>Description :</b></p> <p>(FY 2001 Domestic Survey)  Rio Grande de Sul State submitted the terms of reference for F/S of the said project to ABC/Brazil in March 2001. The F/S was nominated by ABC to Embassy of Japan at the fourth rank in the priority order. However, it was not adopted by the Government of Japan in 2001.  Rio Grande de Sul State changed its organization structure and Mar de Dentro Project Office, the receiving agency of the study, was dissolved.  As a result, there is no special agency for Mar de Dentro Project in Rio Grande de Sul State.  Incidentally, the governor of Rio Grande de Sul State visited Japan after submission of the terms of reference for the F/S and requested its implementation to JICA and JBIC by himself.</p> <p>(FY 2003 Domestic Survey)  Planning overseas D/S..</p> <p>(FY 2004 Domestic Survey)  No information to be specifically mentioned.</p>	



# STUDY SUMMARY SHEET

## (M/P+F/S)

CSA BRA/S 205/00

<b>1. COUNTRY</b>	Brazil	
<b>2. NAME OF STUDY</b>	Study on Storm-water Drainage and Sewerage Management plan for Recife Metropolitan Area in the Federative Republic of Brazil	
<b>3. SECTOR</b>	Public Utilities / Sewerage	
<b>4. TYPE OF STUDY</b>	M/P+F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	SEPLANDES (Secretariat of Planning and Social Development)
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Pacific Consultants International (PCI)	
<b>7. STUDY PERIOD</b>	Oct.1999 ~ Jan.2001 15month(s) ~	
<b>8. SITE OR AREA</b>	M/P: 55 Sewage Systems, Planned Area: 29,959ha F/S: 7 Sewage Systems, Planned Area: 12,464ha	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>M/P: The 86 sewerage systems proposed for the RMR in the PQA were reviewed and 55 sewerage systems were selected for the Master Plan. By completion of the 55 sewerage systems, the percentage of sewer population will be 91%. The Master Plan was planned to be executed in the following two phases.</p> <ol style="list-style-type: none"> <li>1. Phase 1 (2001-2010): Improvement of sewerage facilities for the 25 sewerage systems.</li> <li>2. Phase 1 (2011-2020): Improvement of sewerage facilities for the 30 sewerage systems.</li> </ol> <p>F/S: The 7 sewerage systems proposed as priority projects in the Master Plan were executed. The proposed facilities are summarized as follows,</p> <p>Trunk Sewer: 125.4km Pumping Station 81 stations (Rehabilitation: 38 stations, Construction: 43 stations) Sewerage Treatment Plant 7 plants (Rehabilitation: 2 plants, Construction: 5 plants) Up-flow anaerobic Sludge Blanket (RAFA) + lagoon and RAFA + biofiltration process were recommended as promising treatment methods in the RMR.</p> <p>The mechanical dehydration process and the sludge drying bed were applied as the sludge treatment system in the RMR.</p>		

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

(FY 2001 Domestic Survey)(FY 2003 Domestic Survey)

SEPLANDES (Secretariat of Planning and Social Development), State of Pernambuco intended to submit the request for Japanese Yen Loan to the SEIN (State Secretariat of Infrastructure), however, it was delayed because the Government of Brazil was very strict against the debt.

(FY 2001 Domestic Survey)(FY 2003 Domestic Survey)

The request for the coordinated D/D supported financially by JICA has been submitted to the Japanese embassy by ABC. However, due to the condition that the execution of the D/D supported financially by JICA requires the submission of request for Yen Loan, it will also be delayed.

(FY 2004 Domestic Survey)

No information to be specifically mentioned.

(FY 2005 Domestic Survey)

Provincial government of Pernambuco has requested the Japanese government for a coordinated D/D on Recife Metropolitan Area waste water treatment facility construction proposed in the F/S conducted in 2001 and 2002. However, request has not been progressed due to unmade coordination between regional and central government. SEPLANDES has shown its intention to implement the program.

# STUDY SUMMARY SHEET

## (M/P)

CSA BRA/A 128/01

<b>1. COUNTRY</b>	Brazil	
<b>2. NAME OF STUDY</b>	The Study on Agricultural Sector Development for Amazonas State	
<b>3. SECTOR</b>	Agriculture / (Agriculture in) General	
<b>4. TYPE OF STUDY</b>	M/P	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Institute of Agricultural and Livestock Development of the State of Amazonas
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Nippon Koei Co., Ltd.	
<b>7. STUDY PERIOD</b>	Mar.2000 ~ Dec.2001 21month(s) ~	
<b>8. SITE OR AREA</b>	Three provinces, MAUES, ITACOATIARA and IRANDUBA, located in the northeast and the southeast of Amazonas	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>The project can be broadly divided into seven key component areas:</p> <ol style="list-style-type: none"> <li>1. IDAM Capacity Building</li> <li>2. Support of Farmers' Organizations</li> <li>3. Environmental Support</li> <li>4. Technical Production Support (Environmentally Friendly Agriculture, Guarana, Tropical Fruits, Vegetables, Aquaculture)</li> <li>5. Processing and Distribution Support</li> <li>6. Marketing Support</li> <li>7. Overall Project Monitoring and Evaluation</li> </ol> <p>The key activities proposed in each component above are designed to support the following three development strategies/basic approaches in an integrated manner.</p> <ol style="list-style-type: none"> <li>1. Agricultural Productivity and Quality Improvement</li> <li>2. Marketing/Market Distribution Improvement</li> <li>3. Social/Living Environment Improvement</li> </ol>		

アマゾナス州環境調和型地域住民生計向上計画調査

<b>PRESENT STATUS</b>	In Progress or In Use
	Delayed
	Discontinued

**Description :**

(FY2002 Domestic Survey)

There is no information after this project.

(FY2002 Overseas Survey)

After the study, followings were selected as a priority project to be implemented by IDAM, the organization in charge

- 1.Setting up information networks for keeping in close touch between IDAM and each region,
- 2.Building system of aqua farming production (to be dealt by expert),
- 3.Supporting commercial center in Manaus (to be dealt by expert),
- 4.Promoting environmentally sustainable agricultural technology,
- 5.Introducing and producing new variety of a vegetable in Iranduva City,
- 6.Supporting agricultural cooperatives,
- 7.Implementing trainings for farmers and technicians through IDAM, and
- 8.Procuring material and equipment for evaluation.

(FY 2004 Domestic Survey)

No particular comments

(FY 2004 Overseas Survey)

No particular comments

(FY 2005 Domestic Survey)

No information to be specifically mentioned.

# STUDY SUMMARY SHEET

## (M/P+F/S)

CSA BRA/A 221/01

<b>1. COUNTRY</b>	Brazil	
<b>2. NAME OF STUDY</b>	Integrated Development Master Plan Study in the northern region for Agriculture and Livestock of the State of Tocantins	
<b>3. SECTOR</b>	Agriculture / (Agriculture in) General	
<b>4. TYPE OF STUDY</b>	M/P+F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	State Secretariat of Agriculture
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Pacific Consultants International (PCI)	
<b>7. STUDY PERIOD</b>	Mar.2000 ~ Sep.2001 18month(s) ~	
<b>8. SITE OR AREA</b>	M/P: Northern Region of Tocantins State. F/S: Araguaina and Araguatins Municipalities.	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>M/P:</p> <ol style="list-style-type: none"> <li>1. Agricultural Plan: plans of introducing crops, intensification of livestock farming, and organizing small-medium scale farmers, and etc.</li> <li>2. Environmental Conservation Plan: promotion of afforestation, technical transfer program, and financial assistance program.</li> </ol> <p>F/S:</p> <p>The feasibility Study was conducted for priority areas concerning following plans.</p> <ol style="list-style-type: none"> <li>1. Land use plan: Plan of land use drawn out with full understanding of environmental law and land use potential, as environment standards for Legal Amazon will be applied to the targeted area.</li> <li>2. Grain introduction plan: Plan to recover pasturelands that support livestock farming, the area's important industry, and to introduce rotational grazing (of grains and pastures) to improve farmers' incomes.</li> <li>3. Diversification and strengthening of livestock production: Besides cattle raising, water buffalos were introduced and pork raising was revitalized, and not only processing factories for meat, but also processing factories for dairy products and etc. were planned. Also, development of regional speciality and eradication of livestock illness were planned.</li> <li>4. Promotion of intensive agriculture: Plan was drawn out to reduce production costs, increase productivity and diversify crops by introducing intensive farming in the areas where numbers of individual farmers are large. This will enable poor farmers to exit from self-sufficing farming and improve their living standards.</li> <li>5. Road development plan : Plan to develop transportation network that is essential for distribution, technical assistance and etc.</li> <li>6. Silo enhancing plan: Plan to develop/enhance silo network for distribution of grains (especially soya beans) that are the region's main crops.</li> <li>7. Cheese factory establishment plan: Plan to enable production of regional specific product (mozzarella cheese) using milk of buffalo and etc.</li> </ol>		

トカンチンス州北部地域農牧開発計画調査

PRESENT STATUS	Completed or In Progress Completed Partially Completed Implementing Processing	Promoting Delayed or Suspended Discontinued or Cancelled
<p><b>Description :</b>  (FY 2002 Domestic Survey )  Japanese Technical Cooperation (project-type) is on going.</p> <p>(FY 2005 Domestic Survey)  Applying for a project including part of the study results to IADB.</p>		

# STUDY SUMMARY SHEET

(F/S)

CSA BRA/S 301/03

<b>1. COUNTRY</b>	Brazil	
<b>2. NAME OF STUDY</b>	The Feasibility Study on the Improvement of Transportation System in the Metropolitan Area of Belem	
<b>3. SECTOR</b>	Transportation / Urban Transportation	
<b>4. TYPE OF STUDY</b>	F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	COHAB
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Chodai Co., Ltd. Yachiyo Engineering Co., Ltd.	
<b>7. STUDY PERIOD</b>	May.2002 ~ Aug.2003 15month(s) ~	
<b>8. SITE OR AREA</b>	Belem Metropolitan Area (1820km2)	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>1. Artery bus road maintenance scheme</p> <p>1) To construct bus only arterial road through three arterial roads. In parallel with the construction, three roads as well as roadways, cycling roads and sidewalks will be improved</p> <p>2) To expand Avenue Independencia to six lanes. Bus only arterial lane will be constructed on both sides of central reserve</p> <p>3) To construct bus only arterial lane on the outermost lanes of roads in Belem City and Icoaraci City, as well as on Avenue Mario Kobas in Cidade Nova, which will be differentiated by color paintings</p> <p>4) To convert Avenue Pedro Cabral and Avenue Senador Lemos to one-way three lane road with bus only arterial lane, which is currently two-way four lane road. The bus only lane will be differentiated with color painting</p> <p>5) To construct 8 new bus terminals</p> <p>6) To construct 8 new bus stops beside the bus only arterial lanes and bus exclusive lanes.</p> <p>2. Road maintenance scheme</p> <p>1) Avenue Independencia Plan</p> <p>2) Avenue Primeiro de Dezembro construction/expansion plan</p> <p>3) Avenue Yamada improvement plan</p> <p>4) Rua da Marina improvement plan</p>		

ベレム大都市圏交通輸送システム改善フェージビリティ調査

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

(FY 2004 Overseas Survey)

Counterpart is preparing for getting fund from JBIC to undertake the schemes suggested in this study.

(FY 2004 Domestic Survey)

After completion of this study, although preparation of this project was proceeded, because Para province's governor and mayor of Belem were confronted, it was difficult to receive cooperation from the mayor of Belem mayor. However, in November 2004 city mayoral election, the mayor, belongs to the same political party as Para province's governor was elected, this project would be transferred for implementation in coming days. Para province wishes to have yen loan, these procedure will be planned to concrete.

(FY 2005 Domestic Survey)

Subsequent project: Pedro Cabral-Senador Lemos road improvement project

Implementing period: In progress in FY 2005

Implementing body: Belem city

Contents: Expansion and improvement of road and improvement of paths are in progress in order to introduce trunk line bus system.

Funding:

Funding party: BNDES

Status: Belem city and the bus association are discussing on establishment of the consortium for bus association in order to introduce trunk line bus system.

(FY 2005 Overseas Survey)

Subsequent study: Via Metropole (EVDTU corporation) complementary road project

Implementing period: 2005/Jun-2005/Dec

Implementing body: Belem city hall

Objective: To prepare Via Metropole (EVDTU corporation) complementary road project and to implement the project in 2006.

Situation: Completed in December 2005.



# STUDY SUMMARY SHEET

(F/S)

CSA BRA/S 302/03

<b>1. COUNTRY</b>	Brazil		
<b>2. NAME OF STUDY</b>	Study on Management and Improvement of the Environmental Conditions of the Guanabara Bay in Rio de Janeiro, the Federative Republic of Brazil		
<b>3. SECTOR</b>	Transportation / Port		
<b>4. TYPE OF STUDY</b>	F/S		
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>		
	<b>PRESENT COUNTERPART AGENCY</b>		
<b>6. CONSULTANT(S)</b>	Pacific Consultants International (PCI) Nihon Suido Consultants Co., Ltd.		
<b>7. STUDY PERIOD</b>	Mar.2002 ~ Aug.2003 17month(s) ~		
<b>8. SITE OR AREA</b>	Guanabara Bay		
<b>9. MAJOR PROPOSED PROJECT(S)</b>			
Review of JICA M/P			
<ol style="list-style-type: none"> <li>1. Improvement objective will be met by sewage development.</li> <li>2. To reset an objective to a technically achievable one, on condition that water quality improvement will be achieved by sewage development.</li> </ol>			
Review of CEDAE M/P			
<ol style="list-style-type: none"> <li>1. Conventional activated sludge process applied by CEDAE is an appropriate way to reduce pollutional load to the bay that utilizes a method with high elimination rate stability.</li> <li>2. Sewage pipe will be laid in underground below roadways. In the CEDAE M/P, it is planned that in situations where there are no roads, main line will be laid in rivers, however, this must be avoided upon implementation by using measures such as to change drainage district boundary.</li> <li>3. Several of planned sites for treatment plants have been urbanized, of which some cannot even be identified. It is essential to find alternative sites.</li> </ol>			

グアナバラ湾の環境に関する管理及び改善調査

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

(FY 2004 Survey)

Since the study was completed only short while ago, it is not clear if the government has implemented a project, though the reaction to recommendation seems to be considered.

(FY 2005 Domestic Survey)(FY 2005 Overseas Survey)

In October 2003, the Study on Management and Improvement of the Environmental Conditions of the Guanabara Bay in Rio de Janeiro was proposed as a short-term prioritised measure.

In May 2005, Rio de Janeiro province has requested SEAIN of the Federal government through ABC for the implementation of second period PDBG (has been previously requested in 2004). The request aims to obtain 10,000 million JPY worth loan from JBIC and IDB for drinking water, solid waste, as well as waste water proposed in the study. The request will be decided after being considered in COFIEX.

# STUDY SUMMARY SHEET

## (M/P)

CSA BRA/S 101/05

<b>1. COUNTRY</b>	Brazil		
<b>2. NAME OF STUDY</b>	Pecem Industrial and Port Complex development plan in the Federative Republic of Brazil		
<b>3. SECTOR</b>	Transportation / Port		
<b>4. TYPE OF STUDY</b>	M/P		
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>		
	<b>PRESENT COUNTERPART AGENCY</b>		
<b>6. CONSULTANT(S)</b>	Nippon Koei Co., Ltd.		
<b>7. STUDY PERIOD</b>	Feb.2005 ~ Mar.2006 13month(s) ~		
<b>8. SITE OR AREA</b>			
<b>9. MAJOR PROPOSED PROJECT(S)</b>			

ブラジル国ペセン工業港湾開発計画調査 (社会開発部)

<b>PRESENT STATUS</b>	In Progress or In Use  Delayed  Discontinued
-----------------------	--

**Description :**

(FY 2006 Domestic Survey)

No information to be specifically mentioned.

# STUDY SUMMARY SHEET

## (M/P)

CSA CHL/S 101/83

<b>1. COUNTRY</b>	Chile	
<b>2. NAME OF STUDY</b>	State Railways Modernization Project	
<b>3. SECTOR</b>	Transportation / Railway	
<b>4. TYPE OF STUDY</b>	M/P	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Chilean State Railways
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Japan Railway Technical Service (JARTS)	
<b>7. STUDY PERIOD</b>	Jul.1982 ~ Jun.1983 11month(s) ~	
<b>8. SITE OR AREA</b>	All of the lines of the Chilean State Railways	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>In project 1, recommendations were made mainly on the improvement of freight car operation and information systems. In project 2, recommendations were made mainly on the basis of drawing up commercial policies.</p> <p>Main recommendations:</p> <p>For freight service--- 1) Reinforcement of a transport setup between main base stations; 2) introduction of an administration system for revenue targets; 3) promotion of individual contract systems with influential forwarders; 4) increase in marine container transport; and 5) efficient freight car operation.</p> <p>For passenger service--- 1) Reinforcement of long-distance truck line transport and intercity transport; 2) improvement of the seat reservation system, etc.</p> <p>For the telecommunications sector---</p> <p>Immediate improvement of superannuated facilities</p>		

<b>PRESENT STATUS</b>	In Progress or In Use
	Delayed
	Discontinued

**Description :**

The proposal made by this Study was utilized to formulate the operational policy of the Chilean State Railways.

**Background:**

The financial constraints prevented the improvement of trains and infrastructure, which resulted in the weakening of the competitive power of the State Railways. As a consequence of the reduction of passengers caused by inferior facilities, the total revenue was slashed by 50% during FY 1993 to 1994.

**Finance:**

Nov.1992 L/A 6,412 mil. Yen

\*Components of project  
rehabilitation of railway facilities and vehicles

**Construction:**

1994 Phase I commenced (focused on the improvement of the infrastructure)  
(estimated cost was US\$ 70 mil., 75% of which will be provided by OECF)

Phase II will cover wider area and make it possible to run the passenger's trains between Santiago and Puerto Monto with an average velocity of 100km/hour. Quick assistance from Japan is eagerly expected.

**Detail:**

(FY 1991 Overseas Survey)

The proposal made by this study was also utilized to formulate the Rehabilitation Plan for the State Railways. The State Railways have been implementing the improvement of the Communication facilities, etc. with the own fund. The Railway Reconstruction Plan (estimated cost of US\$ 48 mil.) is under deliberation at the legislature.

# STUDY SUMMARY SHEET

## (M/P)

CSA CHL/S 102/86

<b>1. COUNTRY</b>	Chile	
<b>2. NAME OF STUDY</b>	Development Plan of the Ports of Valparaiso and San Antonio	
<b>3. SECTOR</b>	Transportation / Port	
<b>4. TYPE OF STUDY</b>	M/P	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Ministry of Transport and Telecommunication
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	The Overseas Coastal Area Development Institute (OCDI)	
<b>7. STUDY PERIOD</b>	Mar.1986 ~ Aug.1986 5month(s) ~	
<b>8. SITE OR AREA</b>	Valparaiso Port, San Antonio Port	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>Valparaiso Port will be a port to handle general cargo including container. San Antonio Port will be handling bulk cargo.</p> <p>(1)Valparaiso Port            Container berth 300m, -12m, 3 berths            General Cargo berth -11m, 5 berths</p> <p>(2)San Antonio Port            Multi purpose berth -12m            General Cargo berth -11m, 3 berths etc.</p>		

バルパライソ港・サンアントニオ港整備計画

<b>PRESENT STATUS</b>	In Progress or In Use
	Delayed
	Discontinued

**Description :**

(FY 1998 Overseas Survey)

The implementation of proposed projects is situated as a matter of first importance, as transportation means especially such as infrastructure development of port is considered essential for Chili's economic development.

Subsequent Study

F/S on The 5th area, Port Improvement Project Phase I (WB fund)

Finance:

WB

(FY 1991 Overseas Survey)

The phase I construction at San Antonio and Valparaiso are respectively costed at US\$36 million and US\$19 million. Phase III construction is expected to end in 2015.

(1)Valparaiso Port

(FY 1997 Overseas Survey)

Finance:

Government budget 52%

World Bank loan 48%

Jan.21.1992 World Bank L/A 44,512,785US\$

Construction:

1990~1998

&lt;Completed&gt;

Contractor

Repair of Baron Wharf Hartley, Precon

Rehabilitation of Storage A , B Consorcio Vecoval-ingecol

Baron Wharf Crane Transformation Asmar

Construction of Maintenance Facility Hartley DSD

&lt;Implementing&gt;

Reconstruction of site 1, 2, 3 Belfi

&lt;Preparing&gt;

Reconstruction of site 4, 5 (Basic and detailed design study is in process)

Others

The transferred techniques during the JICA study have been utilized for the development planning of other ports. The Japanese regulations on port constructions works are officially applied.

(FY 1995 Overseas Survey)

The recipient country highly appreciates this survey work and wishes to extend these kind of works for the other similar projects.

(FY 1998 Overseas Survey)

Financial assistance as well as technical cooperation on port rehabilitation is required to promote the implementation of the project.



# STUDY SUMMARY SHEET

(F/S)

CSA CHL/A 301/86

<b>1. COUNTRY</b>	Chile	
<b>2. NAME OF STUDY</b>	Mapocho River Basin Agricultural Development Project	
<b>3. SECTOR</b>	Agriculture / (Agriculture in) General	
<b>4. TYPE OF STUDY</b>	F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Ministry of Agriculture, Ministry of Public Works (Directorate general of water)
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Pacific Consultants International (PCI) Chuo Kaihatsu Corporation Naigai Engineering Co., Ltd.	
<b>7. STUDY PERIOD</b>	Dec.1984 ~ Jul.1986 19month(s) ~	
<b>8. SITE OR AREA</b>	Mapocho Central River Basin next to the capital Santiago and Lampa and Colina Basins(36,000ha chosen from 61,000ha from the 1st development study)	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
Irrigation area : 17,340 ha Check dam : Height 28m, Length 48m, Capacity 13,000 cu.m Headworks : Height 1.5m, Length 200m Syphon : Width 2.3m, Height 2.3m, Length 240m, 10.3 cu.m/s Water treatment stations : 5 River improvement : 40.7 km San Carlos : 17 km Improvement of waterway		

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

Sewage Treatment Pilot Plant  
(FY 1998 Domestic Survey)

Finance:

Source of fund is unknown.

Construction:

May 1994 ~ 1999

\*Contents: construction of a full-scale sewage treatment plant.

Japanese technical cooperation:

Project-type technical cooperation ("Environmental center project")

\*Related Study:

June 1998 ~ JICA Development Study "Agricultural development project in the suburban area with consideration of the environment".

Situation:

(FY 1991 Overseas Survey)

It is reported that the quality of water has deteriorated three-fold after the completion of the JICA study, and it will be necessary to update basic data and review the design, and also to clarify the issue of hygiene.

The outbreak of cholera in 1991 served to highlight the importance of the project, and the follow up for drainage management has been requested.

(FY 1991 Overseas Survey)

Another feasibility study was undertaken by the EMOS, but it was found out that the proposals of the JICA study were more economical and could be implemented in the shorter period of time. The Ministry of Agriculture wishes to start the implementation as early as possible because of the importance and urgency of the project.

(FY 1997 Domestic Survey)

The Government of Chile was going to request grant aid assistance for the sewage treatment project but requested to other donor due to the several reasons.

(FY 1998 Domestic Survey)

Since the proposed projects included not only agricultural development project as the major objective but also sewage treatment project to be implemented by a different agency, there was difficulty in coordinating the different agencies and project implementation was delayed. Regarding the agricultural development, it is required to coordinate with the on-going JICA Development Study.

(FY 1998 Overseas Survey)

A part of water quality improvement, San Carlos Channel improvement, and El Carmen Channel improvement were implemented. However, since the priority of the government's policy has changed to industrialization, the implementation of other projects is interfered. In order to put the project into practice, several works such as soil survey, drawing of farmers' support plan, development of agricultural production method in view of environment, diffusion of product's quality and its security are required.

# STUDY SUMMARY SHEET

(F/S)

CSA CHL/A 302/88

<b>1. COUNTRY</b>	Chile				
<b>2. NAME OF STUDY</b>	Survey for the Tololo Pampa Area Groundwater-Used Agricultural Development Project				
<b>3. SECTOR</b>	Agriculture / (Agriculture in) General				
<b>4. TYPE OF STUDY</b>	F/S				
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	The Government of Atacama Region			
	<b>PRESENT COUNTERPART AGENCY</b>				
<b>6. CONSULTANT(S)</b>	Nippon Koei Co., Ltd. Kokusai Kogyo Co., Ltd. Taiyo Consultants Co., Ltd.				
<b>7. STUDY PERIOD</b>	Feb.1987 ~ Sep.1988 19month(s) ~				
<b>8. SITE OR AREA</b>	Between Copiapo and Vallenar City in Atacama Region with an area of about 33,000ha				
<b>9. MAJOR PROPOSED PROJECT(S)</b>					
Alternative Cropping Pattern					
	Kiwi	Grape	Peach	Kiwi/Tuna	Grape/Tuna
Development Area(ha)	76.8	85.8	76.8	64.0/171	71.5/191
Nos. of wells	6	6	6	5/1	5/1
Irrigation Method	Drip	Drip	Drip	Drip	Drip
Drainage length(m)	1,920	2,010	1,920	1,920/5,820	2,010/ 5,820
Road Const./ Improvement(km)	57.2	60.9	57.2	83.4	86.5
Note: The project cost above ranges depending on the cropping pattern as follows. (in US \$1000)					
1. Kiwi	1,275.5				
2. Grape	1,475.8				
3. Peach	1,260.6				
4. Kiwi/Tuna	1,940.7				
5. Grape/Tuna	2,184.4				

トロロ・パンパ地下水農業開発計画

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

## Subsequent Studies:

(FY 1991 Overseas Survey)

The proposed project is expected to be implemented by the private sector. A private firm has undertaken a feasibility study, which proposes the development of 200ha for igerilla (oilseed) production at the cost of US\$1 million. Another proposal suggests 500ha for tuna production.

Concerning the sale of the land, the Ministry of National Assets is currently reviewing the related laws. The Government expects to implement the projects after legal issue are cleared. A part of national land has sold and the farmer who bought the land will start to produce grape and tuna.

(FY 1998 Domestic Survey)

There is no information regarding the implementation of the projects by private sector.

(FY 1998 Overseas Survey)

The study results were utilized in establishment plan of afforestation center in Canto del Agua area(Tololo Pamp), Asuko Province, and Atacama River area. The production of high quality lumbers will be possible if the proposed project, which is the afforestation of trees that adjust arid region, is done. At the present, the government is promoting the review of land selling law. A part of national land was sold for the use of grape planting.

The study results are very effective not only in utilizing the lands that aren't practically used for the time being but also to restore the deteriorated environment that are damaged by drought in the nothern region and over-exploitation of natural resources

# STUDY SUMMARY SHEET

## (M/P)

CSA CHL/S 103/92

<b>1. COUNTRY</b>	Chile	
<b>2. NAME OF STUDY</b>	Rehabilitation and Conservation Program of Bridges	
<b>3. SECTOR</b>	Transportation / Road	
<b>4. TYPE OF STUDY</b>	M/P	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Ministry of Public Works, Road Bureau
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Chodai Co., Ltd. Nippon Koei Co., Ltd.	
<b>7. STUDY PERIOD</b>	Oct.1991 ~ Mar.1993 17month(s) ~	
<b>8. SITE OR AREA</b>	National highway No.5 on the state No.4 to No.10 in the Republic of CHILE	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>1.Propose rehabilitation plan for detail surveyed bridges(Total rehabilitation cost 577 million pesos).</p> <p>2.Propose rehabilitation plan for 17 bridges being necessary urgent repair on route 5(Rehabilitation cost 93 million pesos).</p> <p>3.Propose a guideline for Bridge maintenance and Inspection.</p> <p>4.Propose a bridge management system which includes inspection item, evaluation of deficiency, standard repair method, standard repairing cost and the system could apply to administration of bridge maintenance.</p>		

全国橋梁補修整備計画

<b>PRESENT STATUS</b>	In Progress or In Use
	Delayed
	Discontinued

**Description :**

In "The Study on the Rehabilitation and Conservation Program of Bridges in the Republic of Chile", the detailed survey was conducted on 10 bridges and their renovation plan was proposed.

(1) Rehabilitation of Bio-Bio Antiguio Bridge (constructed in 1930)

Subsequent Studies:

Oct.1993 F/S conducted by JICA upon the request from the Chilean government

1995 D/D scheduled to be implemented with the government fund

(FY 1999 Overseas Survey)

Construction was completed.

(2) Claro Bridge

The new bridge was constructed with the government fund.

(FY 1999 Overseas Survey)

Old bridge was rehabilitated and the new bridge was constructed on the Second Road.

(3) Amolanas Bridge, Pullally Bridge, etc.

Subsequent Studies:

D/D implemented for repair and reconstruction (the government fund).

(FY 1999 Overseas Survey)

Old bridge was rehabilitated and the new modern bridge was under construction on the Second Road.

(4) Other bridges

(FY 1999 Overseas Survey)

Pullally: Old bridge was rehabilitated and the new bridge was constructed on the Second Road.

Maipo: rehabilitated.

Peuco: reconstructed.

Loncomilla: A modern bridge was constructed.

Ramadillas: reconstructed.

Malleco: rehabilitated.

Pichoy: reconstructed.

Cayumapu: reconstructed.

Detail:

(FY 1995 Overseas Survey)

In total, 250 bridges throughout the nation were investigated and were registered with photographs. Among them eleven bridges need to be repaired immediately. It is planned to repair them with the equipment provided by Japan and some of them have been already implemented.

(FY 1998 Overseas Survey)

The study results are utilized in the national development plan. This is because the government of Chile considers the development of national road network as well as the development of regional economy essential for the solution of poverty. Also, as Chile is often damaged by natural disasters, bridge improvement is necessary. In case of bridge improvement the utmost cost effect must be considered.

## STUDY SUMMARY SHEET (Basic Study)

CSA CHL/A 501/92

<b>1. COUNTRY</b>	Chile	
<b>2. NAME OF STUDY</b>	Forest Resources Management	
<b>3. SECTOR</b>	Forestry / Forestry & Forest Conservation	
<b>4. TYPE OF STUDY</b>	Basic Study	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	CORFO (Corporacion de Fomento de la Produccion)
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Japan Forest Technical Association	
<b>7. STUDY PERIOD</b>	Dec.1990 ~ Mar.1993 27month(s) ~	
<b>8. SITE OR AREA</b>	Forest area between the VIII Administration Region (BIO BIO) and the IX Administrative Region (Araucania)	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>- Study Area : approx. 550,000 ha          - Model Area: approx. 64,000 ha</p> <p>Forest areas in the Model Areas were classified into Protection Area and Production Area based on the land use plan prepared. Those two Areas were categorized according to the forest management criteria and the forest management plan was formulated. The management activities include cutting, regeneration, nursery practice, forest road establishment, site conservation and forest protection. In Production Area, Grazing Forest was proposed: while Experiment Forest was proposed in order to develop management system of natural forest and grazing forest.</p>		

<b>PRESENT STATUS</b>	<p>In Progress or In Use</p> <p>Delayed</p> <p>Discontinued</p>
<p><b>Description :</b></p> <p>Utilization of the study: (FY 1995 Overseas Survey) Various maps, basic data, criteria, etc. come out as the performance of this survey works are widely utilized for the research works of natural forest not only in the model area but in the other areas, for the land use and vegetation analysis of the satellite images and for the environmental improvement. Experimental works to promote the production of the edible fungus are also carrying on with supports by the experts concerned with the model area.</p> <p>(FY 1999 Overseas Survey) Data base made by this Study has been utilized for formulating the regional action plans such as Melleco National Reserve Management Plan.</p> <p>Dispatch of the experts: (FY 1995 Overseas Survey) The government of Chile requested to dispatch the Japanese expert on the forest policy who also coordinates the project. Receiving this request, the Government of Japan dispatched one expert to Chile in 1994.</p>	



# STUDY SUMMARY SHEET

## (M/P+F/S)

CSA CHL/S 201/94

<b>1. COUNTRY</b>	Chile	
<b>2. NAME OF STUDY</b>	Development of Water Resources in Northern Chile	
<b>3. SECTOR</b>	Social Infrastructure / Water Resources Development	
<b>4. TYPE OF STUDY</b>	M/P+F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Ministry of Public Works
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Pacific Consultants International (PCI)	
<b>7. STUDY PERIOD</b>	Mar.1993 ~ Mar.1995 24month(s) ~	
<b>8. SITE OR AREA</b>	San Jose and Yuda river basins, Pampa del Tamargal and Salar de Huasco Area	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>1)Water supply for city of Iquique (estimated population on 2015: 273,000): Develop underground water at Pampa del Tamargal basin by 16 wells, supply the water from the filtration plant at the basin to the city through pipeline with a length of 68km and the water distribution tank which will be constructed at the city. This project will be implemented by two(2) stages, first one is up to 2005 and second one is up to 2015. Facilities will be constructed half and half for each stage.</p> <p>2)Water supply for city of Arica (estimated population on 2015: 215,000): Develop underground water at Yuda River basin by 26 wells, supply the water to the city through water filtration facility utilizing the reservedly permeating film (RO).</p> <p>3)Investigation for development the underground water at Lauca River basin: The water supplying capacity of Yuda River basin will be only good for the demand until 2005. Therefore, another water resources are necessary to develop . So, neighboring Lauca River basin should be investigated from the points of view of hydrogy, hydrogeology, physical exploration, trial boring and pumping tests.</p>		

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

These projects should be carried out by the water supply and sewage service corporation (ESSAT) of Tarapaca State. At present, the corporation is studying how to realize these projects.

(FY 1996 Domestic Survey)

The request has been made to implement a project which aims to formulate a groundwater development plan of Lauca River.

ESSAT has been implementing small scale development projects with own fund. It is not planned to procure fund from the Japanese Government.

It is reported that the water shortage in the target area is getting severe, however, there is no plan to implement effective measures immediately to solve the problem.

(FY 1998 Domestic Survey)

Proposed projects were to be implemented with OECF loan. However, since there has been the tendency toward a strong yen, the projects are being implemented with their own fund.

(FY 1998 Overseas FU Survey)

ESSAT conducted the additional survey on water resources development in accordance with the present and future demands for water. Ministry of Public Works implemented the water resources management plan for San Jose River Basin. Ministry of National Planning conducted the comprehensive survey on six river basins including San Jose in the critical situation.

(FY 1999 Overseas Survey)

(1) Iquique City: 8 pumped wells, distribution channel, pumping station were constructed. Under operation.

(2) Arica City: 11 pumped wells, water treatment plant, water transmission system were constructed. Under operation.

(3) Development of the underground water at Lauca River Basin: F/S is being implemented by ESSAT.

(FY 2000 Domestic Survey)

The feasibility study for the development of the underground water at Lauca River Basin has not been implemented.

Contents of F/S:

1) To evaluate the potentiality of the groundwater and the surface water development of the Lauca River Basin

2) To consider the quantity of the supply water for the Arica City based on the evaluation

Situation in progress:

At the completion of the Study, both the counterpart and JICA expected to implement the proposal by Yen Loan, however, Chile Government showed their policy not to compensate for the Loan because of the exchange risk. Therefore, Ministry of Public Works had not submitted the request and ESSAT dug some wells on the outskirts of Arica City to increase the quantity of the pumping water.

# STUDY SUMMARY SHEET

(F/S)

CSA CHL/S 301/94

<b>1. COUNTRY</b>	Chile		
<b>2. NAME OF STUDY</b>	Feasibility Study on the New Biobio Bridge		
<b>3. SECTOR</b>	Transportation / Road		
<b>4. TYPE OF STUDY</b>	F/S		
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Ministry of Public Works, Road Bureau	
	<b>PRESENT COUNTERPART AGENCY</b>		
<b>6. CONSULTANT(S)</b>	Chodai Co., Ltd. Nippon Koei Co., Ltd.		
<b>7. STUDY PERIOD</b>	Jan.1993 ~ Jan.1994 12month(s) ~		
<b>8. SITE OR AREA</b>	Concepcion City		
<b>9. MAJOR PROPOSED PROJECT(S)</b>			
Construction of a Bridge with a length of 1,855m and a width of 24.4m in type of post-tensioning hollowed slab bridge.			

新ビオビオ橋建設計画調査

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

Reasons why the projects were implemented:

(FY 1998 Overseas Survey)

- 1.High priority is given over the development of national roads in Chili as it supports the advancement of export industry.
- 2.The permanence of Biobio Bridge has come to its limit.

Finance:

(FY 1999 Domestic Survey)

Chile government fund: US\$45mil. (23,150,222 pesos)

Components: construction of the bridge (2,157m in length), Los Carrera Road and the access road, development of six intersections.

Construction:

(FY 1999 Domestic Survey)

29 May 1998 commenced. Construction of the bridge was completed in Jan. 2000.

(FY 1999 Overseas Survey)

Completed. 2,156.37m in total length, 4 lanes, lightnings on the prestrest concrete girder.

Detail:

The Ministry of Public Works is calling for a tender to appoint a contractor for the bridge construction works planned to be commenced in July, 1995.

(FY 1995 Overseas Survey)

The estimated costs for designing is US\$ 1.5 mil. and for construction is US\$ 70 mil. It is scheduled to be commenced in 1996 and to be completed in a year.

(FY 1998 Domestic Survey)

The Presidential Order declared the implementation of the proposed project after the completion of F/S. Although it was decided that the project would be implemented by BOT scheme, fund has not been procured and the prospect of implementing the project is vague.

# STUDY SUMMARY SHEET

## (M/P)

CSA CHL/S 104/95

<b>1. COUNTRY</b>	Chile	
<b>2. NAME OF STUDY</b>	Industrial Solid Waste Management in the Metropolitan Region	
<b>3. SECTOR</b>	Public Utilities / Urban Sanitation	
<b>4. TYPE OF STUDY</b>	M/P	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	National Environment Committee
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Kokusai Kogyo Co., Ltd. EX Corporation	
<b>7. STUDY PERIOD</b>	Jan.1995 ~ Feb.1996 13month(s) ~	
<b>8. SITE OR AREA</b>	Final disposal plant: Cero/Carnero, Quilpilan, Montenegro site proposed	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>Market scale of industrial waste disposal industry in 2010.</p> <p>1)Gathering/transportation industry -(Project Cost: 13,590 US\$/year)</p> <p>2)Intermediate disposal industry -(Project Cost: 2,202 US\$/year)</p> <p>3)Final disposal industry -(Project Cost: 25,894 US\$/year)</p> <p> </p> <p>*PROJECT COST (US\$ 1,000/year)</p> <p>M/P 1) 13,590 2) 2,202 3) 25,894</p>		

<b>PRESENT STATUS</b>	<p style="text-align: center;">In Progress or In Use</p> <p style="text-align: center;">Delayed</p> <p style="text-align: center;">Discontinued</p>
<p><b>Description :</b></p> <p>Utilization of Outputs: (FY 1997 Overseas Survey) The results of the study have been utilized for elaboration of National Plan for Industrial Solid Waste Management (1997~). Moreover, National Environment Committee (CONAMA) and National Environment Center (CENMA) are using the data and so forth obtained by the study.</p> <p>Out of the priority projects proposed in the study, institution system will be in charge of public organization and technology system (gathering transportation facility, intermediate/final disposal plant) will be handled by private sector including F/S.</p> <p>(FY 2001 Overseas Survey) The study results with an analysis of industrial solid waste management in the metropolitan area, enabled the government to formulate waste management policies.</p> <p>Subsequent study: (FY 1997 Domestic Survey) F/S and construction are to be implemented by private sector including investment from foreign companies.</p> <p>Situation: (FY 1997 Domestic Survey) The study introduces adequate means for administrative organs to guide and administer industrial solid waste disposal by private sector. The Government of Chile is establishing the system to implement the projects.</p> <p>Related Project: (FY 1997 Domestic Survey) Construction of poisonous solid waste disposal plants is in process by European and North American companies.</p> <p>(FY 2005 Domestic Survey) No subsequent study has been conducted since the M/P. However, proposal made in the study has been adapted and referenced in various occasions.</p>	

# STUDY SUMMARY SHEET

## (M/P)

CSA CHL/S 107/98

<b>1. COUNTRY</b>	Chile	
<b>2. NAME OF STUDY</b>	The Rehabilitation Conservation Program on Bridges (Phase 2)	
<b>3. SECTOR</b>	Transportation / Road	
<b>4. TYPE OF STUDY</b>	M/P	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Ministry of Public Works (MOP).
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Pacific Consultants International (PCI)	
<b>7. STUDY PERIOD</b>	Sep.1996 ~ Mar.1998 18month(s) ~	
<b>8. SITE OR AREA</b>	Objectives are across the country. The samples are in the Ninth State.	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>Nothing in particular.</p> <p>As the sample for bridge rehabilitation plan have been made the priority for the implementation.</p>		

<b>PRESENT STATUS</b>	<p style="text-align: center;">In Progress or In Use</p> <p style="text-align: center;">Delayed</p> <p style="text-align: center;">Discontinued</p>
<p><b>Description :</b></p> <p>(FY 1999 Domestic Survey) There is no information about the utilization of the sample bridge design made by CADD system, even though the fund procurement for construction was supposed to be started soon after the study.</p> <p>(FY 1999 Overseas Survey) The results of this Study are utilized.</p> <p>(FY 2001 Overseas Survey) Maintenance and rehabilitation of some bridges recommended in the study have been already included in the regional development project under the consideration of priority, social needs, and financial situation. Maintenance and rehabilitation of 45 bridges (total extension: approximately 3km) have been already completed. The bridges were included in regional development projects or urgent construction projects in accordance with the priority of urgency because final design and plans for investment/fund procurement were not prepared in the study and there was no fund procurement to start construction.</p> <p>(FY 2001 Domestic Survey) The study aims to transfer techniques of bridge maintenance methodology. No implementation of construction was proposed in the study.</p>	



# STUDY SUMMARY SHEET

## (M/P+F/S)

CSA CHL/A 226/99

<b>1. COUNTRY</b>	Chile	
<b>2. NAME OF STUDY</b>	Agricultural Development and Water Management in Metropolitan Area	
<b>3. SECTOR</b>	Agriculture / (Agriculture in) General	
<b>4. TYPE OF STUDY</b>	M/P+F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Naigai Engineering Co., Ltd. Asia Air Survey Co., Ltd.	
<b>7. STUDY PERIOD</b>	Jun.1998 ~ Aug.1999 14month(s) ~	
<b>8. SITE OR AREA</b>	M/P:3,200km2 (Metropolitan, Prov.V and Prov.IV) F/S:Popeta area (5,000ha) and Mallarauco area (7,000ha)	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
M/P:		
1. Agricultural Infrastructure Development		
(1) Irrigation Development (2) Improvement of existing irrigation system		
2. Rural Living Infrastructure Development		
(1) Water supply (2) Sewerage System (3) Local Road Improvement		
3. Environmental Conservation		
F/S:		
1. Agricultural production plan		
2. Farmer's org./Agri. Support plan		
3. Agricultural infrastructure improvement plan		
4. Rural infrastructure improvement plan		

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

Subsequent Study:

(FY 2000 Domestic Survey)

The Chilean government is examining for the realization of this project.

(FY 2001 Overseas Survey)

Maipo River Third District and Yali/Arue Basin Irrigation Optimization Integrated Study was implemented for preliminary survey to realize the project.

In the study, especially the irrigation channels in the south riverside of Maipo River and other elements were analyzed as proposed in JICA's proposal.

Study period: Approximately 13 months.

Financial Source: Chili Industry Field Foundation.

Fund Procured: 200,000,000 peso.

(FY 2003 Overseas Survey)

Study results: affirmative economic indices have been suggested in most of the proposal, and national fund or transfer of business rights to the private sector has been proposed as funds for implementation of the project. In the case of the water channel improvement construction of the third sector of the Maipo River, subsidization to private investment in small-scale construction and financing managed by the national irrigation committee have been proposed.

(FY 2002 Overseas Survey)

Procurements: there has no plan requesting for financial assistance. Ministry of Public Work has decided to implement detailed study, according to institutional priority and contents of proposal.

(FY 2003 Overseas Survey)

The "Diagnostic Study on Current Condition of Reuse of Sewage Plant Effluent in the Capital Area" is expected to be started within 2003 and completed at the beginning of 2004. This study integrally aims at strengthening agriculture in the Capital Area by using the treated effluent for irrigation in districts where regulated effluent is currently used for cultivation of various vegetables. Quality improvement of agricultural products irrigated by higher quality water will contribute to larger effects in economic fields and enhanced export advantage in overseas market.

Projects that have been implemented so far are as follows:

- 1) Implementation of meetings with farmhouses in regions targeted for the study with the objective of obtaining their recognition about the study results and proposals.
- 2) The initiative of the private sector especially in a more detailed investigation of the プアング Swamp region in a tributary of the Maipo River.
- 3) The initiative of the Ministry of Public Services in order to implement a more detailed study based on the organizational priority and the related budget in near future (the irrigation facility construction bureau and the business right adjustment unit).
- 4) Adjustment with the irrigation promotion unit with the objective of implementing small-scale projects proposed in the sewage utilization study.

(FY 2004 Domestic Survey)

No information to be specifically mentioned.

(FY 2004 Overseas Survey)

1. Subsequent Studies

1) Completed Studies: "Status Diagnostic Study of Rural Sewage Water Utilisation in the Capital" has completed in early 2004. Valuable report was brought for sewage utilisation for irrigation system in the capital by the study. Fine irrigation water can improve the quality of agricultural products. Detailed analysis was also conducted for related regulation in the study (irrigation and drainage regulations). Existing disputes on water property rights and a rental fee of water and irrigation were scrutinised.

2) Future Prospect: Results of F/S of the above proposed projects are presented in the beginning of 2004. Further study will include an analysis for proposed constructions. Scale of the construction which are considered ranges from small to medium facilities.

2. Other progress status

So far, following activities have been conducted:

- 1) Meetings held with farmers in target area to present research results and its proposal
- 2) Detail study by private entity in Puange region, where there is a tributaries of Mapio River.
- 3) Detail study to be conducted by Ministerio de Obras P?blicas (hydrological construction department and commission adjustment team) in the near future, according to priorities of the projects and budget.
- 4) Adjustment by irrigation promotion team to implement small-scaled construction project presented in water source utilization study.

# STUDY SUMMARY SHEET

## (M/P)

CSA CHL/S 129/01

<b>1. COUNTRY</b>	Chile	
<b>2. NAME OF STUDY</b>	Study for Promotion of Investments and Exports for the Balanced Economic Development	
<b>3. SECTOR</b>	Development Plan / (Development Plan in) General	
<b>4. TYPE OF STUDY</b>	M/P	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Ministry of Economy, Development and Reconstruction
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	International Development Center of Japan (IDCJ) UNICO International Corporation	
<b>7. STUDY PERIOD</b>	Mar.2000 ~ Sep.2001 18month(s) ~	
<b>8. SITE OR AREA</b>	Throughout the county	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>Proposed projects include:</p> <ol style="list-style-type: none"> <li>1. North Zone: Industry development targeting macro-region market and enhancement of gateway function.</li> <li>2. Central Zone: Development of integrated gateway (Toward a gateway city from a port city)</li> <li>3. South-Zone: Eco-region development</li> <li>4. Nationwide: Promotion of manufacturing industry that is non-NR(natural resource)-dependent (Solution-oriented manufacturing industry)</li> <li>5. Nationwide: Information technology industry</li> </ol>		

<b>PRESENT STATUS</b>	In Progress or In Use
	Delayed
	Discontinued

**Description :**

(FY2002 Domestic Survey)

1. JICA's cooperation has continued: After the study, the government has requested Japan's cooperation in developing information technology, which is recommended as a result of the Study. JICA has already conducted project formulation study at the early time of 2002, who advised that the IT center should be established in Valparaiso. JICA has dispatched a specialist for formulating IT center building plans. The Center is to be opened in 2003, and additional specialists are expected to be dispatched.

2. Chile government: Responding to the recommendation by the Study, the government has launched effort to promote export and private investment in Northern, Central and Southern regions. CORFO (Chilean Economic Development Agency) is playing the leading role.

(FY2002 Overseas Survey)

The projects are in practice, emphasizing on the followings:

1. Regional development of Tarapaca:

1.1. Developing Port of Arica: The study on financing method of private investment by setting conditions for investment is to be conducted.

1.2. Developing infrastructure and strengthening function as a gateway: Corridor construction.

1.3. Developing infrastructure in the Region of Tarapaca: Renovation and construction work of 4 bridges along the Arica, Tambo, Macedo line was implemented on budget of Ministry of public work.

2. Valparaiso Region

2.1 Demand expansion of gateway: Export promotion for commercial services: local government organized management meetings of Argentina and Brazil.

2.2 Strengthening logistic support: Global system of General Port Operation and tourism

2.3 Study for regional integration: Research Center was established, responding to regional integration.

2.4 Tourism development: In FY2002, M/P and promotion program were conducted on the budget of local Govt.. Tourist information was established on Robinson Crusoe Island.

2.5. Infrastructure development: infrastructure development, aerial development as logistic support, garbage disposal system were invested. Metro construction and national highway construction, bridging Argentine and Chile are to be implemented.

3. Los Lagos: In 2002 there was no activities implemented, shown in the project plan.

(FY 2004 Overseas Survey)

All strategies indicate that important progress degree up until now and its degree depend on the situation where the action plan was planned. In terms of public organs, respond to the demands of this survey perfectly. MOPTT, CORFO, PROCHILE, PROCHILE, and SERNATUR did their duties at medium and high level. Private sectors are not active enough. In most cases, implementing action plans, although public sectors raised a partial or total results, demanding for the governments financial measures. Small scale firms are built up on the basis of a single strategy, and are lack of action capacity along with competitiveness to respond to challenge the globalised world. In most of all, the strategies which are progressing at high speed; the southern part, middle part, and ITC fields. On the other hand, the northern part and manufacturing cluster strategy is relatively low.

(FY 2005 Domestic Survey)

'IT development center' was pre-operated for a year, with Santa Maria University as a counterpart (2004). Whether the project would be implemented or not depends on the result of operation. However, there is no information on this subject.

(FY 2005 Overseas Survey)

Subsequent study: Territorial integration of salmon cluster

Implementing period: 2004 - 2007

Implementing body: CORGO - INSTITUTO TECN. DEL SALMON - CODEPROVAL.

Objective:

1) Enhancement of internal relations within salmon farming cluster between producer, processor, feed produces, fund/service providers, research/educational organizations, and related public organizations.

2) Establishment of working committee to prepare salmon farming industry development strategy for the industry's overall sustainable development (standards and laws related to diving, delivery, logistics, fish farming administration and fish net production).

3) Public advertisement of technologies related to development of the industry's logistics, management, biotechnology, and new product/process method development was assisted.

Status:

Although salmon cultivation industry were seemed to be extremely positive, several issues exists especially on environment, human capital development, and production environment, which need to be solved in the near future.

Even though development of XI region is expected in the future, the region is inferior in infrastructure (number of supplier, waste disposal system, fishery method, hygiene control, fodder supply, logistics of human and resource capital), which requires efficient logistics system for future development.

Several research development projects are implemented with an assistance from CORFO (Corporacion de Fomento de la Produccion). These projects focuses for a solutions to the energy problem (carbon fund), and waste recycling (forest/agricultural soil, construction material, biotechnology products and etc.) to make products, in order to establish waste processing method for wastes from few particular manufactures.

In addition, based on eco-regionalization proposed together with JICA and EPIE, institutionalization of clean production has progressed, which established a committee for clean production to formulate an "Agreement of clean production (acuerdos de produccion limpia: APL)" described below.

- Salmon cultivator APL: completed, In second stage for certification

- Fishing net producer APL: Formulating an agreement

- Merluza producer/exporter APL: In final stage for signature

- Constructor APL: Formulating an agreement

- Cheese producer APL: Formulating an agreement

- Lumberer and timber processor APL: Formulating an agreement

Committee for a Clean Production has demanded CORFO to survey current situation of Fat PL (technical assistance fund) and Pag PL (company assistance fund) of their situation for delay and termination.

CONICYT, CECTA, and University of Chile Austral will jointly establish "Institute of sustainable nutrition and provision" in Llanquihue and to contribute 2.7 million CLP for a budget.

# STUDY SUMMARY SHEET

## (M/P)

CSA COL/S 101/81

<b>1. COUNTRY</b>	Colombia	
<b>2. NAME OF STUDY</b>	Simon Bolivar Great Memorial Park Project	
<b>3. SECTOR</b>	Social Infrastructure / Urban Planning & Land Development	
<b>4. TYPE OF STUDY</b>	M/P	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Inmuebles Nacionales, Ministerio de Obras Publicas y Transportes
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	JCP Co., Ltd. Pacific Consultants International (PCI)	
<b>7. STUDY PERIOD</b>	Oct.1980 ~ Sep.1981 11month(s) ~	
<b>8. SITE OR AREA</b>	Southern center (350 ha) of Bogota City	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>The study proposed to establish a large-scale park complex in the southern part of the central area of Bogota City. Major components are as follows.</p> <ul style="list-style-type: none"> <li>-Memorial park: national festival plaza, international communication center, convention hall, outdoor theater, etc.</li> <li>-Athletic facilities: sports center</li> <li>-Educational and amusement facilities: historical museum, transport museum, natural history museum, botanical garden, amusement park, etc.</li> </ul>		

シモンボリバル公園造成計画

<b>PRESENT STATUS</b>	In Progress or In Use
	Delayed
	Discontinued

**Description :**

The Study report has been highly valued and the proposal made by M/P has been implemented.

## Subsequent Studies:

1981 F/S implemented with the own fund upon the completion of this Study

## Finance:

Own fund

## Construction:

1988 Commenced

## (FY 1991 Overseas Survey)

Memorial square, water supply facilities, etc. have been completed. At the end of 1990, the park complex was opened to the public. Other facilities are planned to be constructed.

## (FY 1995 Overseas Survey)

Construction works of ponds, drainage channels, surrounding promenades and bridges are being carried on. Also, there are plans to construct restaurants and icecream stands.

## STUDY SUMMARY SHEET (Basic Study)

CSA COL/A 501/81

<b>1. COUNTRY</b>	Colombia	
<b>2. NAME OF STUDY</b>	Fisheries Resources Survey	
<b>3. SECTOR</b>	Fishery / Fishery	
<b>4. TYPE OF STUDY</b>	Basic Study	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Bureau of Natural Resources, Agency of Natural Resources and Environment
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>		
<b>7. STUDY PERIOD</b>	Apr.1979 ~ Mar.1981 23month(s) ~	
<b>8. SITE OR AREA</b>	Water Basin of Pacific Ocean, Caribbean Sea, and San Andres Islands, Basin at the depth of 10-1,000 fathon from Chirambira Point to the border with Panama, and at the depth of 10-200 fathon from Chirambira Point to the border with Ecuador	
<b>9. MAJOR PROPOSED PROJECT(S)</b>	<div style="border: 1px solid black; width: 100%; height: 15px; margin-bottom: 5px;"></div> <ul style="list-style-type: none"> <li>- Resource survey of fish that live in continental shelves and slopes in Colombian waters, environmental survey around fishing places, experimental operation, methods to utilize fish by type</li> <li>- Biological survey of main fish</li> <li>- Meteorological observation</li> </ul>	

水産資源調査

<b>PRESENT STATUS</b>	In Progress or In Use
	Delayed
	Discontinued

**Description :**

The export of deep sea shrimps earns valuable foreign exchange and about 20 fishing boats (including seven Japanese boats) are in operation in the Pacific Ocean side of Colombia. Colombian Government hopes to increase the number of fishing boats to increase the haul (current haul is about 1,500MT per year), and requested the Japanese cooperation to identify the maximum sustainable yields of fishery resources.

(FY1995 Domestic Survey)  
No additional information.

(FY1995 Overseas Survey)  
No particular progress.



# STUDY SUMMARY SHEET

## (F/S)

CSA COL/S 301/82

<b>1. COUNTRY</b>	Colombia	
<b>2. NAME OF STUDY</b>	Bogota-Buenaventura Road Project	
<b>3. SECTOR</b>	Transportation / Road	
<b>4. TYPE OF STUDY</b>	F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Ministry of Public Works and Transportation
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Kokusai Kogyo Co., Ltd.	
<b>7. STUDY PERIOD</b>	Jun.1979 ~ Mar.1981 21month(s) ~	
<b>8. SITE OR AREA</b>	Road between Buenaventura and Bogota	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<ul style="list-style-type: none"> <li>-Two-lane road improvement               <ul style="list-style-type: none"> <li>widening 70 km</li> <li>landslide protection 100 km</li> </ul> </li> <li>-New road               <ul style="list-style-type: none"> <li>bypass shortcutting the crossing of Magdalena River</li> </ul> </li> </ul>		

ベナベンツラ - ボゴタ間道路計画

PRESENT STATUS	Completed or In Progress Completed Partially Completed Implementing Processing	Promoting Delayed or Suspended Discontinued or Cancelled
<p><b>Description :</b></p> <p>(FY1991 Overseas Survey) The project implementation was postponed because of the shortage of finance. At present, an alternative route is proposed between Bogoda and Buenaventura, and the preliminary study is being undertaken.</p> <p>(FY1994 Domestic Survey) No information.</p>		

# STUDY SUMMARY SHEET

## (M/P)

CSA COL/S 102/84

<b>1. COUNTRY</b>	Colombia	
<b>2. NAME OF STUDY</b>	Comprehensive Urban Transport Study in Barranquilla Metropolitan Region	
<b>3. SECTOR</b>	Transportation / Urban Transportation	
<b>4. TYPE OF STUDY</b>	M/P	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Municipality of Barranquilla
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Chodai Co., Ltd. Yachiyo Engineering Co., Ltd.	
<b>7. STUDY PERIOD</b>	Jul.1983 ~ Mar.1985 20month(s) ~	
<b>8. SITE OR AREA</b>	Barranquilla metropolitan area	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>As the major large scale projects, the following are identified through the master plan study.</p> <ul style="list-style-type: none"> <li>a.Urban Renewal/Development of the Central District.</li> <li>b.Road Network Development.</li> <li>c.Development of Bus Transport System.</li> <li>d.Development of Rail Transit System.</li> <li>e.Development of South Subcenter Area.</li> <li>f.Development of North Subcenter Area.</li> </ul> <p>Among the above, the study related to the urban renewal/development of the Central District should be most urgently carried out since the Central District has numerous problems in its land use, transport, environment, etc., while it is expected to be the most important regional core of the Caribbean coast.</p>		

バランキージャ総合都市交通計画

<b>PRESENT STATUS</b>	<p>In Progress or In Use</p> <p>Delayed</p> <p>Discontinued</p>
<p><b>Description :</b></p> <p>Based of the recommendations of the study, the following actions have been taken.</p> <ol style="list-style-type: none"> <li>1)Adoption of short-term measures(e.g. traffic control).</li> <li>2)Endorsement by the city council of the land use plan</li> <li>3)A feasibility study by JICA on the urban renewal of CBD</li> <li>4)Establishment of a planning unit in the city government</li> <li>5)Dispatch of a Japanese long-term expert</li> </ol> <p>(FY 1998 Overseas Survey)  1996 Secretary of the Tourism and Transportation was established.  1998 Policy of Urban Transportation was introduced.</p> <p>Project implemented</p> <p>(1)Barranquilla Renewal / Development of the Central District</p> <p>(2)Public Transportation Improvement Project  (FY 1994 Domestic Survey)  *By the year of 1994, the constuction of bus terminals in suburbs and re-routing of bus routes going toward to the central parts of downtown are being implemented.  (FY 1995 Domestic Survey)  *Various road construction projects are being implemented by their own budget.  (FY 1995 Overseas Survey)  *Regarding to the drainage of rain water from the main facilities of transportation in the city, the regulations concerned were proclaimed on August, 1995, and an agreement of the construction works was signed on October, 1995 with a contractor.</p> <p>(3)Others  (FY 1998 Overseas Survey)  Subsequent study:  Apr. - Nov.1998 F/S and D/D, 720mil.pesos (FONADE credit), Construction of Avenida del Rio.  May - Sep.1994 D/D, 90mil.pesos (EDUBAR S.A.), Expansion of 30th District.  May - Oct. 1995 F/S, 300mil.pesos (FONADE credit), Drainage project for Barranquilla.  May - Aug. 1997 F/S, 70mil.pesos (FINDETER credit), Construction of the terminal for inter-municipality buses.</p> <p>Implementing projects:  1998 - 1999 Construction of Santo Domingo River Canal (concrete canalization).  1990 - 1999 Installation of traffic signals at 96 intersections.  1994 - 1996 Construction of bridges/roads at 45th District - Circunvalar Ave.and 51B road - Circunvalar Ave.</p> <p>(4)Acceptance of trainees  (FY 1998 Overseas Survey)  Jun.1987 One trainee (urban transportation).  1987 One trainee (urban drainage).</p> <p>Others:  (FY 1991 Overseas Survey)  30 million Peso is budgeted for the duration of 10 years, and the related ministries are in the process of budget finalization. The state government is requesting to the World Bank for financial assistance.</p> <p>(FY 1997 Domestic Survey)  No additional information.</p>	

# STUDY SUMMARY SHEET

(F/S)

CSA COL/A 301/84

<b>1. COUNTRY</b>	Colombia	
<b>2. NAME OF STUDY</b>	Pamplonita River Basin Agricultural Development Project	
<b>3. SECTOR</b>	Agriculture / (Agriculture in) General	
<b>4. TYPE OF STUDY</b>	F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Instituto Colombiano de hidrologia, Meteorologia Y adecuacion de tierras(HIMAT)
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Pacific Consultants International (PCI)	
<b>7. STUDY PERIOD</b>	Jun.1983 ~ Jul.1984 13month(s) ~	
<b>8. SITE OR AREA</b>	Norte de santander, 40km north of Cucuta, Pamplonita River Basin 13,500ha, 400,000 people	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>1. Drainage improvement            Drainage improvement are :1,740 ha            Main canal : 50.5 km            Lateral canal : 84.1 km            Interception canal : 14.6 km</p> <p>2. Irrigation facilities            Irrigable area :4,300 ha            Head race : 6.4 km            Main canal : 26.7 km            Lateral canal : 25.3 km            Rerated structure</p> <p>3. Farm roads            Main road (construction) : 14.5 km                              (improvement) : 6.2 km            Lateral road : 250 km            Bridge and others</p>		

パンプロニータ川流域農業開発計画

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

The project was divided into two sections by its climatological and soil conditions. HIMAT and CORPONOR are in charge of each sector.

(1) First Sector (of which HIMAT is in charge)

Subsequent Studies:

D/D

Finance:

World Bank loan and the fund of HIMAT

Construction:

Scheduled to be commenced this year (FY 1992 Overseas Survey)

(2) Second Sector (of which CORPONOR is in charge)

Subsequent Studies:

D/D

Finance:

the fund of CORPONOR

Construction:

Part of construction completed (FY 1992 Overseas Survey)

Detail:

(FY 1991 Overseas Survey)

A part of the projects in the neighbouring Suria area (downstream only which was not proposed by this study) was completed in 1988 with the World Bank loan. However, the construction covering the upstream has been suspended. Other parts of the project has been untouched.

(FY 1992 Overseas Survey)

The Pamplonita project has been integrated into the National Program of Adaptation of Land.

(FY 1995 Overseas Survey)

12.5 mil. Pesos was allocated from the state budget.

# STUDY SUMMARY SHEET

(F/S)

CSA COL/A 302/86

<b>1. COUNTRY</b>	Colombia				
<b>2. NAME OF STUDY</b>	Small Scale Irrigation Package Project in Slope Area				
<b>3. SECTOR</b>	Agriculture / (Agriculture in) General				
<b>4. TYPE OF STUDY</b>	F/S				
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Instituto Colombiano de hidrologia meteorologia y adecuacion de tierras			
	<b>PRESENT COUNTERPART AGENCY</b>				
<b>6. CONSULTANT(S)</b>	Naigai Engineering Co., Ltd. Pacific Consultants International (PCI) Nippon Koei Co., Ltd.				
<b>7. STUDY PERIOD</b>	Jan.1986 ~ Mar.1987 14month(s) ~				
<b>8. SITE OR AREA</b>	Andes region among the Oriental Moutain Range				
<b>9. MAJOR PROPOSED PROJECT(S)</b>					
Proposed Components in 4 areas					
Sub-area	SanPedro de Iguaque	Santa Sofia	Caqueza	Tibacuy	Total
Irrigation area(ha)	162	239	417	258	1,076
Pond(site)	2	-	4	-	6
Intake facilities(site)	3	4	5	4	16
Main irrigation canal(km)	11	13	8	5	37

傾斜地小規模かんがい計画

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

The agricultural development project in this area has been implemented by the government with three stages. This F/S is a model plan to formulate the development project in this sloping area.

(1) Phase I (including a part of Santa Sofia area)

Finance:

Sep.1987 BIRF loan (US\$ 32 mil.)

Construction:

Oct.1987 Commenced Investment cost (Local Currency)-\$31,624,905

1988 Completed (50ha out of 239ha of Santa Sofia area)

(The World Bank Loan US\$ 62,500)

Mar.1989 Phase I Completed

(2) Remaining Part of Santa Sofia Area and other areas

(FY 1992 Overseas survey)

The project has been delayed.

(FY 1995 Domestic Survey)

It is heard that the consolidation of farmland is in progress at some parts of San Pedro de Iquique, however the detail is unknown.

(FY 1998 Overseas survey)

There has not been any progress in project implementation due to the budget constraint and restructuring of the engineering institution.

\*Project-Type Technical Cooperation

"Irrigation Agricultural Development in the Sloping Area"

Oct.1.1991 - Sep.30.1997

(FY 1994 Domestic Survey)

1993-1994 Model Infrastructure Development Project implemented

(FY 1997 & 1998 Domestic Survey)

Jan.1998~ An individual expert (cultivation) was dispatched (for two years).

Jan.1999 A short-term expert (water management) was dispatched for one month).

Situation :

60% of the farmers in the nation is the small-scale farmers who carry out their agricultural activities in mid-slope of mountainous areas.

To promote the eradication of poverty, relief of these small-scale farmers and elevation of agricultural productivity are the most urgent policy of the nation.



# STUDY SUMMARY SHEET

(F/S)

CSA COL/S 302/87

<b>1. COUNTRY</b>	Colombia		
<b>2. NAME OF STUDY</b>	Urban Development of the Central District of Barranquilla		
<b>3. SECTOR</b>	Social Infrastructure / Urban Planning & Land Development		
<b>4. TYPE OF STUDY</b>	F/S		
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	National Dept. of Planning, Municipality of Barranquilla	
	<b>PRESENT COUNTERPART AGENCY</b>		
<b>6. CONSULTANT(S)</b>	Chodai Co., Ltd. Yachiyo Engineering Co., Ltd.		
<b>7. STUDY PERIOD</b>	Jul.1986 ~ Feb.1988 19month(s) ~		
<b>8. SITE OR AREA</b>	Central Area(150 ha) of Barranquilla		
<b>9. MAJOR PROPOSED PROJECT(S)</b>			
<p>The following six projects are in connection with the urban development of the Central District:</p> <ol style="list-style-type: none"> <li>1) Construction of the Bus Terminal. <ul style="list-style-type: none"> <li>- Intermunicipal bus terminal</li> <li>- Urban bus terminal</li> <li>- Urban bus routing to and from Barranquillita</li> </ul> </li> <li>2) Reorganization of the Existing Public Market in Barranquillita.</li> <li>3) Provision of an Urban Park to Replace the Mercado Canal.</li> <li>4) Improvement of Calle 30.</li> <li>5) Construction of the Riverside Bypass.</li> <li>6) Arrangement of Infrastructures.</li> </ol>			

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

The Colombian Government established EDUBAR (Empresa Desarrollo Urbano de Barranquilla, government 51%, private sector 49%) in April 1990.  
(FY 1998 Overseas Survey)

The proposed project has been included in the pilot macro project on national urban policy started in 1994.

## Subsequent studies:

(FY 1998 Overseas Survey)

Nov.1996 - May 1997 Revision, 180mil.pesos (FINDETER credit).

Apr. - Oct.1998 F/S and D/D on Rio Ave., 720mil.pesos (FONADE credit).

Oct.1997 - Feb.1998 F/S on the development of Ahuyama Canal, 150mil.pesos (CORMAGDALENA, Barranquilla).

Jan. - Mar. 1998 Design of the sewage network, 50mil.pesos (EDUBAR fund).

## Project Implemented:

(1) The expansion of road

EDUBAR undertook F/S, on Nov.1991 the construction commenced.

(2) Bus terminal

(FY 1991 Overseas Survey)

EDUBAR undertook F/S, one of terminals completed on Mar.1992, the construction of another one will be started on Jun.1992.

(FY 1995 Overseas Survey)

Inter Municipal Bus Terminal: The construction commenced on Jul.1996, will be completed on Feb.1997.

(3)Others

(FY 1998 Overseas Survey)

Jan.1997 - Nov.1998 (completed) Expansion of the 30th district between 46th St. and 38th St., 6,400mil.pesos (FINDETER credit).

May - Dec.1998 (completed) Environmental improvement of Cano del Mercado Ring Road, 1,300mil.pesos (Barranquilla, Ministry of Environment: FONAM).

Feb.1998 - Jan.1999 (completed) Improvement of inner roads, 7,600mil.pesos (FINDETER credit).

Jan. - Dec.1996 (completed) Establishment of Cano del Mercado, 6,000mil.pesos (Central government fund).

Oct.1998 - Pump station for sewage system, 300mil.pesos (FINDETER credit).

Jan.1997 - Jan.1999 Construction of the markets (Mercado El Playon, Mercado Plaza Ujueta, Mercado La Magola, Mercado Edubar, Mercado E.P.M., Mercado Cafetero), 550mil.pesos (Central government fund and FINDETER credit).

## Operation &amp; management:

(FY 1998 Overseas Survey)

EDUBAR S.A. is engaged in managing the markets.

Public works projects (roads, bridges, canals) have been taken over to Barranquilla.

## Dispatch of Experts:

Upon the request of the municipality of Barranquilla, JICA dispatched a short term expert to the EDUBAR (Empresa Desarrollo Urbano de Barranquilla) from Nov.1994 to Jan.1995.

## Acceptance of trainees:

(FY 1998 Overseas Survey)

May - Jun.1996 One trainee (urban development).

Oct. - Dec.1998 One trainee (land readjustment).

## Detail:

(FY 1992 Overseas Survey)

Total investment costs \$79,500 million pesos (US\$103.5 million).

The projects are being implemented according to the F/S.

(FY 1995 Domestic Survey)

As the project for Yen Credit, the priority is low. Therefore, this project has been excluded from the list of requesting projects.

(FY 1995 Overseas Survey)

Every project consisted this survey work have been commenced to implement about the same time and are going to complete until June,1996.

# STUDY SUMMARY SHEET

## (M/P)

CSA COL/A 101/88

<b>1. COUNTRY</b>	Colombia	
<b>2. NAME OF STUDY</b>	Quindio Basin Integrated Agricultural Development Project	
<b>3. SECTOR</b>	Agriculture / (Agriculture in) General	
<b>4. TYPE OF STUDY</b>	M/P	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Regional Autonomous Corporation of Quindio
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Pacific Consultants International (PCI) Naigai Engineering Co., Ltd.	
<b>7. STUDY PERIOD</b>	Jan.1987 ~ Jun.1988 17month(s) ~	
<b>8. SITE OR AREA</b>	Quindio (20,000,000 sq.km) population 400,000	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>In order to correct regional differences within Quindio a long term plan has been set for the year 2005. Priority projects were selected and pre F/S was conducted as short term plans.</p> <p>Long term plan :</p> <ul style="list-style-type: none"> <li>-Agricultural development plan (6 areas 9000ha)</li> <li>-Disaster prevention plan (6 areas)</li> <li>-Improvement of water (7 areas)</li> <li>-Infrastructure(197km road, 3 generators, 2 water supply)</li> </ul> <p>Short term plan :</p> <ul style="list-style-type: none"> <li>-Agricultural development plan (9 areas 7000ha)</li> <li>-Disaster prevention plan(emergency flood control in 2 places)</li> <li>-Water quality improvement (1 area)</li> <li>-Infrastructure (113km road, 2 power stations)</li> </ul>		

キンディオ盆地農業総合開発計画

<b>PRESENT STATUS</b>	In Progress or In Use
	Delayed
	Discontinued

**Description :**

(FY 1989 Domestic Survey)

The agricultural development project which includes measures for small farms corresponds with the national policy for improving regional differences. The change from the coffee monoculture also has been proved important in activating the area's agriculture, leading to the development of the area.

Utilization of the study

(FY 1989 Domestic Survey)

A request was made to the Japanese Government by the DNP regarding technical assistance on the F/S of this project.

The F/S was carried out from March 1990. The final report will be made in January 1991. During the F/S, the model plants of coffee waste water treatment were constructed.

The maps of the study were incorporated with the following development plans.

- National integrated agricultural development
- Disaster prevention projects
- Water supply management etc.

Others

(FY 1992 Overseas Survey)

1992.11 Asamblea departamental del Quindio approved the Integrated Agricultural Development Project at the state level by the No.5 order. The investment plans of the First Phase are as follows:

1993 \$23.1 million, 1994 \$43.6 million, 1995 \$68.2 million,

1996 \$123.9 million, 1997 \$23.1 million

(FY 1995 Domestic Survey)

Providing for making this coffee waste water treatment plan as a grant aid project.

(FY 1995 Overseas Survey)

C.R.Q. is implementing the survey works of disaster protection plan and the analysis of the agricultural land soil from hydrological and geological viewpoints.

# STUDY SUMMARY SHEET

(F/S)

CSA COL/A 303/89

<b>1. COUNTRY</b>	Colombia	
<b>2. NAME OF STUDY</b>	Ariari River Basin Integrated Agricultural Development Project	
<b>3. SECTOR</b>	Agriculture / (Agriculture in) General	
<b>4. TYPE OF STUDY</b>	F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Instituto Colombiano de hidrologia, meteorologia y adecuacion de tierras(HIMAT)
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Pacific Consultants International (PCI) Naigai Engineering Co., Ltd.	
<b>7. STUDY PERIOD</b>	Aug.1988 ~ Nov.1989 15month(s) ~	
<b>8. SITE OR AREA</b>	Meta, Ariari upper river basin (150km southeast of the capital Bogota) study area 41,000ha	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<ul style="list-style-type: none"> <li>- Irrigation Area: 23,815 ha</li> <li>- Headworks: 1 (Fixed weir: width 187m x height 3m) (Movable weir: width 27m x height 10m)</li> <li>- Main Irrigation canal (Concrete and earth lining): 95km</li> <li>- Main drainage Canal (Earth lining): 5km</li> <li>- Lateral Irrigation Canal (Concrete and earth lining): 113km</li> <li>- Road (Asphalt and aggregate paved): 235km</li> <li>- Diversion works: 6</li> <li>- Bridges: 138</li> <li>- Siphons: 161</li> </ul> <p>In addition of above facilities, tertiary irrigation canals and on-farm development were included.</p>		

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled
<b>Description :</b>		
<p>Subsequent Study:  (FY 1997 Domestic Survey)  Bid for D/D was held in 1996. As soon as OECF approves a consultant, D/D will be started. Bid for construction will be opened continuously.  D/D consultant / PCI</p> <p>Finance:  Apr.1996 L/A 7,673 mil.Yen  (AriAri River Basin Integrated Agricultural Development Project)</p> <p>*Contents of Project  1. Intake weir (height 3.0m, width 210m)  2. Irrigation Canal (208km)  3. Drainage Canal (5km)  4. Road improvement</p> <p>Details before the procurement of the fund:  In February 1991 the Colombian government officially requested the Japanese government for the financial assistance to implement the project. Although OECF mission was planned to be dispatched, the delay in the procedure to dispatch a mission, the public disorder in Colombia (frequent occurrence of Terrorism, etc.), etc. caused it to be suspended.  In June 1993 an OECF appraisal mission was sent at last and had a discussion with the concerned Colombian Authority over the project cost and other related topics.</p> <p>Construction:  (FY 1996 Domestic Survey)  Jan.1997~2003 Scheduled to be implemented  (FY 1997 Domestic Survey)  Not commenced yet  (FY 1998 Domestic Survey)  Since the structure of the implementing agency has changed and expenses for consultant contract are not prepared by the government, scope of works by OECF loan has not been decide.  (FY 1998 Overseas Survey)  Consultant contract is to be made after OECF will approve. Response to the conditions presented by OECF was submitted in March 1999.  (FY 1999 Domestic Survey)  PCI outbid the contract. However, due to the security problem, the construction was suspended. The possibility for launch is extremely low.  (FY 1999 Overseas Survey)  Embassy of Japan requested that the security problem in Colombia should be solved.</p> <p>Detail:  (FY 1992 Overseas Survey)  The ARIARI project has been integrated into the National Program of Adaptation of Land, in which the improvement of 535,000ha of land is planned for a decade commencing in 1991.</p>		

# STUDY SUMMARY SHEET

## (M/P)

CSA COL/S 103/91

<b>1. COUNTRY</b>	Colombia	
<b>2. NAME OF STUDY</b>	Air Pollution Control Plan in Santafe de Bogota City Area	
<b>3. SECTOR</b>	Administration / Environmental Problems	
<b>4. TYPE OF STUDY</b>	M/P	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Jefe Section Protection Ambiente, La Secretaria Distrital de Salud Santafe de Bogota D.C.
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Research, Analysis and Computing Pacific Consultants International (PCI)	
<b>7. STUDY PERIOD</b>	Jul.1990 ~ Feb.1992 19month(s) ~	
<b>8. SITE OR AREA</b>	The area under the jurisdiction of the Sectetaria Distetaria Distrital de Saludde Santafe de Bogota D.C.	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>(1) Countermeasure for the whole area</p> <p>(a)Institutional: 1)Revision of emission standards 2)Education of operator of stationary sources 3)Reinforcement of regulation on stationary sources 4)Revision of motor vehicle inspection and refistration system 5)Establishment of type approval system of motor vehicle about exhaust gas 6)General instruction of drivers on motor vehicle operation 7)Treatment of diesel motor vehicles 8)Reviews of the tax imposing system on vehicles 9)Establishment of prevention system against hydrocarbon evaporation from stationary sources 10)Establishment of subsidy system for private investment on air pollution control 11)Deliberate Reorganization of laud use in the city.</p> <p>(b)For short term: 1)Improvement of combustion 2)Fuel Improvement or conversion 3)Installation of dust collector 4)Reduction of heat radiation loss 5)Prevention of soil dust dispersion from soil mining or asphalt mixing plant</p> <p>(c) For Medium to Long Term: 1)Improvement of combustion of oil boilers. 2)Fuel Improvement or Conversion 3)Installation of dust collector 4)Reform of used gasoline motor vehicle 5)Reconstruction of trolley bus network 6)Construction of passenger railway lines. 7)Improvement of public bus system.</p> <p>(2) Countermeasure for specific area</p> <p>(a)Large Intersections:1)Prevention of tall buildings 2)Open space as buffer area 3)To keep the distance from residential areas</p> <p>(b) Specific Stationary Source: Raising of chimney height to lower the concentration of pollution.</p>		

ボゴタ市大気汚染対策計画

<b>PRESENT STATUS</b>	In Progress or In Use
	Delayed
	Discontinued

**Description :**

## Air Pollution Control

- Regulation of exhaust gas (CO, HC concentration by car type):

Implemented

- Improvement of public bus system: Implemented

- Reconstruction of trolley bus system: Delayed

- Construction of passenger train system: Delayed

- Installation of mechanical coal-feeder: Implemented

- Fuel improvement: Implemented

- Installation of dust collector: Implemented

## Others:

(FY 1995 Overseas Survey)

Regulations of the air pollution control were proclaimed on June, 1995, and additional regulations will follow in succession.

In future, it is planned to investigate the performances of air pollution control activities in every 3years by the specialists' group established by Japanese cooperation.

(FY 1996 Domestic Survey)

An IBRD project (US\$40 mil.), which aimed to assist to formulate a nationwide environmental policy targetting Bogota, Cali, Medellin etc. and to establish an environment information system to carry out the assistance, was implemented and, consequently, the nationwide air quality monitoring system seems to be established (yet to be confirmed). Around 1993, the Ministry of Environment was newly established.

(Project in Bogota was proposed by this study)

(1)Air Pollution Control in Bogota

(FY 1997 Domestic Survey)(FY 1998 Overseas Survey)

Finance: World Bank/ DAMA

\* Contents of the project

Establishment of air pollution monitoring system (32 stations)

Stage I: 9 stations, II:11 stations, III:12 stations.

## Construction:

9 stations were opened at the time of Jan.1997.

12 stations have been installed and 2 stations were under installation as of 1999.

Operation of the network is commissioned to APCYTEL Ltd. and that of the additional 2 stations is commissioned to ESC Sanambiente.

(2)Countermeasure for whole country

(FY 1997 Domestic Survey)

- Control of exhaust gas of vehicle

Makers were obligated to install system to check exhaust gas when register new car.

- Promotion of exclusive lane for buses

- Promotion of use of gas in household

- Control of evaporation of HC (executed in 1996)

- Reinforcement of control over exhaust gas from factories (executed in Jul.1996)

(FY 1999 Overseas Survey)

Being implemented: emission control, new vehicle control, gasoline car control, fuel measurement, introduction of gasoline peroxide, improvement of trolley bus, introduction of passenger train, improvement of bus transport system, education for citizens/drivers, improvement of incineration way, improvement of the quality of fuel, evaluation of height of chimneys, training for technicians, etc.

Being implemented/Will be implemented: air monitoring/networking, introduction of technology for cleaning, implementation of public campaign for improving the conciseness on environment, etc.

Delayed: strengthening of registration system, countermeasure for diesel vehicles, review of tax on cars, treatment of exhaust gas, etc.

(3)Other implemented projects

(FY 1998 Overseas Survey)

1.Follow-up and monitoring the source of air pollution in Bogota industrial estate (completed in Jul.1998): \$400,300,000 (CORPODIB:\$72,300,000, ELDAMA:\$328,000,000).

2.Strategy for the training the mechanics for controlling the pollution (Jul.1997 - Dec.1998): \$145,000,000 (DAMA).

3.Evaluation of the relation between the air pollution and the respiratory disease of the children in Puente Aranda (Dec.1996 - Sep.1997, by Colombia Medical School):\$40,000,000 (DAMA).

4.Study on the relation between the air pollution and the respiratory disease in 5 areas in Santa fe de Bogota (Mar.1998 - Sep.1999, by Javeriana Univ.):\$142,400,000 (Javeriana Univ., Dep. of Health, DAMA).

## Others:

(FY 1997 Domestic Survey)

Several gas fields have been exploited at Casana province. Provision of gas for users including households is going on.

If gas supply for lower income group increases, exhaustion of substances derived from coal which cause air pollution will be reduced.



# STUDY SUMMARY SHEET

(F/S)

CSA COL/A 304/91

<b>1. COUNTRY</b>	Colombia	
<b>2. NAME OF STUDY</b>	Quindio Basin Integrated Agricultural Development Project	
<b>3. SECTOR</b>	Agriculture / (Agriculture in) General	
<b>4. TYPE OF STUDY</b>	F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Regional Autonomous Corporation of Quindio (CRQ)
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Pacific Consultants International (PCI)	
<b>7. STUDY PERIOD</b>	Mar.1990 ~ Aug.1991 17month(s) ~	
<b>8. SITE OR AREA</b>	7 areas in Dept of Quindio(7,600ha, population 3,400) and Cristales River Watershed (9,400ha)	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>The project is divided in two sub-project:</p> <p>(1) Agricultural Development            - Road improvement (New 134km, Rehab 153km)            - Irrigation improvement (112ha)            - Agro-industry (5 locations)            - Research center (1 locations)</p> <p>(2) Coffee waste water treatment            Model area 1,000 ha (52 Farm households)</p>		

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

(FY 1992 Domestic Survey)

The project is important for providing the solutions to the coffee monoculture and natural water deterioration.

A reduction of coffee export damaged the local economy. Hence, the local government is aiming at development of local economy with corporation of this project.

(1) Agriculture Development

Subsequent Studies:

(FY 1992 Overseas Survey)

1993 D/D implemented by Gobierno Department with its fund.

Construction:

\*Rural Road:

(FY 1997 Domestic Survey)

Based on the proposal of this study, rural road is being rehabilitated by own fund.

(FY 1998 Domestic Survey)(FY 1999 Overseas Survey)

Completed. The road damaged by earthquake was rehabilitated.

\*Irrigation facilities:

(FY 1998 Domestic Survey)

Since, irrigation development project has not been implemented. Some large-scale farmers developed the irrigation facilities by their own funds.

(FY 2000 Domestic Survey)

It is said that some large-scale farmers developed the irrigation facilities by their own funds, however, there is little possibility to procure public fund.

Others:

(FY 1998 Overseas Survey)

"Development project with the community participation in the forest sector (FACOFOR Project)" is under implementation based on the Dutch fund with the coordination of UN organizations, FAO, Regional Autonomous Cooperation of Quindio, Risaralda, Caldas, Tolima.

In addition, the forest program and rural forest program for production and conservation are introduced in Quindio.

Data on land utilization has been renewed/improved after the F/S.

Data on land utilization and distribution of the vegetation are digitized in the Regional Cooperation of Quindio.

(2) Coffee waste water treatment

(FY 1995 Domestic Survey)

The preparation is in progress to request the Japanese grant aid to finance the Coffee Waste Water Treatment Plan.

(FY 1995 Overseas Survey)

Due to the participation of the other governmental organizations, this project has not been implemented, yet. And the original plan was modified on the treatment method and on the location where the first test will be conducted. The water treatment facility aims to remove 90% of contaminating materials with high efficiency. However, it seems to be difficult to proceed the construction at the marshland in the project area due to its topographical characteristics. The application of the air-exposing method is considered to be hard because of the instability of agents and the high energy costs while it is expected to be effective.

The treatment with aerobic bacteria, which could oxidize the contaminated water and remove methane gas, is effective from the viewpoint of the improvement of water quality and the cost saving.

(FY 1996 Domestic Survey)

It is reported that the constructed model facilities have been well operated. Although there are some opinions to expand this model project and to submit a request for Japanese grant aid assistance to implement it, no step has been taken for its realization.

(FY 1998 Domestic Survey)

There was a demand for implementing the project with a grant aid assistance since the coffee farmers have to shoulder the high cost of the project. However, since a grant aid assistance is not applied for Colombia, the project has not been implemented. Implementing agency reported the operational situation of the pilot plant in 1995. The situation after that, however, is unknown.

Impeding factors:

- Coffee waste water causes troubles only twice a year;
- Urban waste water recently causes more troubles than coffee waste water;
- Expenses for the coffee waste water treatment plant may put pressure on the farmers; and
- It is difficult to organize the farmers.

(FY 1998 Overseas Survey)

National Coffee Center (CENICAFE) has developed a new technology with consideration of the environmental aspect which can apply coffee processing.

(FY 1999 Overseas Survey)

Most of the coffee refinery facilities were damaged by the earthquake occurred on 25 Jan.1999. Through reconstructing these facilities, the introduction of the coffee refining system considering the environmental aspects became possible. In the basin along the Cristales Fall, the target area of this Study, 73 households introduced the coffee refining systems considering the environment. Another 84 households will introduce these systems.

(3) Improvement of farm technology

(FY 1998 Domestic Survey)

It was reported that technology was extended through the activities of JOCV.

(4) Others

(FY 1998 Overseas Survey)

Improvement of the pollution by the domestic waste water.

Waste water treatment plants were constructed in Salento and La Tebaida, and sewage was constructed in Monte Negro in 1998. Designs for the treatment plants and sewage in Quimbaya, Cordoba, Buenavista, Calarca were made. EDAR company was established for improving the pollution by the domestic waste water in Armenia.

キンディオ川流域農業総合開発計画

# STUDY SUMMARY SHEET

## (M/P)

CSA COL/S 104/92

<b>1. COUNTRY</b>	Colombia	
<b>2. NAME OF STUDY</b>	The Urban Transport Study in the City of Cartagena de Indias.	
<b>3. SECTOR</b>	Transportation / Urban Transportation	
<b>4. TYPE OF STUDY</b>	M/P	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Express Desarro de Urbano de Bolivar
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Chodai Co., Ltd.	
<b>7. STUDY PERIOD</b>	Mar.1991 ~ Nov.1992 20month(s) ~	
<b>8. SITE OR AREA</b>	City of Cartagena	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>1. Short Term Plan (Investment 1.042 billion Pesos)</p> <p>1) Road Impr. (2 routes) and Road Construction (1 route) , 2) Construction of Bus Bay, 3) Introduction of Water Tramp., 4) Improvement of Traffic Management system</p> <p>2. Medium Term Plan ( Investment 100.218 billion Pesos)</p> <p>1) Road Impr. (3 routes) and Road/Bridge Construction (6 routes, 3 bridges),</p> <p>2) Construction of Bus Terminal (4), Improvement Bus Bay, 3) Installation of Traffic Signal</p> <p>3. Long Term Plan ( Investment 195.127 billion Pesos)</p> <p>1) Road Impr. (17 routes) and Road construction ( 7 routes, 7 bridges), 2)Construction of Bus Terminal (7), Introduction of Trunk-Feeder Bus System, 3) Installation of Traffic Signal, etc..</p>		

<b>PRESENT STATUS</b>	In Progress or In Use
	Delayed
	Discontinued

**Description :**

The improvement of the public transport system has been given high priority in Cartagena.

**(1) Public Transport System and Water Transport System**

(FY 1998 Overseas Survey)

Subsequent study:

1994 F/S for Cartagena urban transportation (\$505mil., funds from District and FINDETER).

1996 Design for the route of public transportation in Cartagena de Indias (\$80mil., District fund).

1997 F/S for the installation of signals at 29 intersections in Cartagena de Indias (\$7mil., District fund).

Finance:

1996 District fund (\$7mil.) Installation of signals at 29 intersections and construction of the pavement.

Construction: 1997 - 1998 (Spanish ETRA).

Operation & Management: DATT

Effect: Improvement/alleviation of traffic congestion at the peak time in commercial and residential areas.

**(2) Improvement of Road Network**

The Colombian government is in preparation for TOR to request the Japanese government to conduct F/S.

(FY 1994 Domestic Survey)

The Colombian government requested the Japanese government to implement F/S. However, it was not successful because it was not given high priority.

(FY 1995 Overseas Survey)

In 1995 a part of the improvement project of the existing road network has been implemented.

(FY 1998 Domestic Survey)

Improvement of the road network is underway with their own fund. However, detail information is unknown.

(FY 2000 Domestic Survey)

The Road Network project between the center of Cartagena and the north area of Cartagena where the large-scale development project is planned was being implemented in 1998. The local consultant in Bogoda carried out this Road Network project by private fund.

**(3) Others**

(FY 1998 Domestic Survey)

Cartagena city expects Japanese government to conduct F/S.

**(4) Other projects implemented or under implementation**

(FY 1998 Overseas Survey)

Local roads:

2-lane Ring road (Ponzezuela - Bayunca): constructed.

Variante Mamobal - Gambote - Cordialidad (2 lane): constructed.

Manzanillo del Mar Ring road: bid was made.

Punta Canoa Ring road: bid was made.

Baru crossing road: under examination.

Perimetral road and Cienaga de la Virgen (C9): financed.

Marginal Sur road and Chambacu road (C20): under bidding.

Urban arterial roads:

Cargo road: under implementation.

Pavement of Consulado Ave.: changed to 2 lanes.

Pedro de Heredia Ave.: changed from 4 to 6 lanes.

Pavement of St.46: changed to 2 lanes (Ceballos - Espana).

Pavement of St.51: changed to 2 lanes (Nuevo Basque - Costa Linda).

Expansion of St.41: changed from 2 to 4 lanes (Av.Santander - India Catalina).

Pavement of St.71: changed to 2 lanes (Biffi - El Socorro).

Pavement of St.15: changed to 2 lanes (Santa Clara - Sn Fernando).

Bridge

Romero Aguirre Bridge (Canapote)(Br11): constructed.

## STUDY SUMMARY SHEET (Basic Study)

CSA COL/A 502/92

<b>1. COUNTRY</b>	Colombia	
<b>2. NAME OF STUDY</b>	Forest Resources Management	
<b>3. SECTOR</b>	Forestry / Forestry & Forest Conservation	
<b>4. TYPE OF STUDY</b>	Basic Study	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Inderena (Instituto Nacional de los Recursos Naturales Renovables y del Ambiente)
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Japan Forest Technical Association	
<b>7. STUDY PERIOD</b>	Feb.1989 ~ Jun.1992 40month(s) ~	
<b>8. SITE OR AREA</b>	Reserva Forestal Central and forest area in Caldas Province	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>- Study Area : 1,600,000 ha          - Intensive Area : aprox. 200,000 ha          - Model Areas : Approx. 20,000 ha</p> <p>As the Study Area, the Reserva Forestal Central was investigated by means of forest and land use condition by using the Landsat data. The guideline for forest resources control was formulated based upon the results of the investigation.          Using the guideline, forest management model plans were formulated on three Model Areas.</p>		

<b>PRESENT STATUS</b>	In Progress or In Use
	Delayed
	Discontinued

**Description :**

The reason for Delay or Cancellation:

(FY 1995 Overseas Survey)

Suspended due to the shuffling of the governmental organization in charge.

Situation:

The Government of Colombia is considering to establish national forest resources management system covering the whole country based on this guideline and forest resources management plan. But no movement of materialization has been observed.

(FY 1997 & 1998 Domestic Survey)

No further information.

# STUDY SUMMARY SHEET

(M/P)

CSA COL/S 118/96

<b>1. COUNTRY</b>	Colombia	
<b>2. NAME OF STUDY</b>	Urban Transportation for Santafe of Bogota City	
<b>3. SECTOR</b>	Transportation / Road	
<b>4. TYPE OF STUDY</b>	M/P	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Chodai Ltd. in Association United Yachiyo Engineering Co. Ltd.
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Chodai Co., Ltd. Yachiyo Engineering Co., Ltd.	
<b>7. STUDY PERIOD</b>	Jul.1995 ~ Dec.1996 17month(s) ~	
<b>8. SITE OR AREA</b>	all of the city of Bogota	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>Proposed projects need to be implemented at a short term (2005), midterm (2010), and long term (2020)</p> <ol style="list-style-type: none"> <li>1. 9-Traffic Management Development Projects</li> <li>2. 15-Bus Trunk Route Development Projects</li> <li>3. 6-Bus Express Route Development Projects</li> <li>4. 2-Railways Development Projects</li> <li>5. 4-Bus Terminals Development Projects</li> <li>6. 10-Existing Roads Improvement Projects</li> <li>7. 18-New Roads Construction Projects</li> <li>8. 3-Section Urban Express Way Construction Projects</li> </ol>		

<b>PRESENT STATUS</b>	In Progress or In Use
	Delayed
	Discontinued

**Description :**

(FY 1997 Domestic Survey)

Based on the short-term project proposed by this M/P, some projects have being implemented in the Bogota city. Recognizing the importance of trunk bus system and construction of highway, the city has requested a technical cooperation to conduct F/S to the Japanese government. Preliminary study team will be dispatched in Dec 1997.

(1) Traffic Management Project (15th avenue)

(FY 1998 Domestic Survey)

On-going.

(FY 2000 Overseas Survey)

Finance: Bogota City budget (45 million USD)

Construction: 1997 ~ 1999 (Completed)

Contents: Bus Route Development Project (2 Routes) (Bus Route Development, Extension of the sidewalk and improvement of parks)

(2) Bus Route Development Project

Subsequent study:

(FY 1998 Domestic Survey)

1998/Apr - 1999/Jun F/S by JICA

(Study on the Construction of Highway and Bus Lane in Bogota City)

Cost/ approximately 300 million JPY.

Bogota City expects Japanese government to further conduct D/D.

Finance:

(FY 1998 Domestic Survey)

OECE loan is to be provided.

(FY 2001 Domestic Survey)

Bogota City budget.

Construction:

Completed

Refer to COL/S 310/99 Feasibility Study on the Project of Highway and Bus-lane of Santa Fe de Bogota (1999)

(3) Railway Development

Subsequent study:

(FY 1999 Overseas Survey)

F/S in under implementation.

(FY 2000 Domestic Survey)

F/S of the Subway Construction Project in Bogota City was implemented.

(FY 2001 Domestic Survey)

Contents of F/S : This Railway Development Project was studied as the F/S by the consultant group composed of the American, French and Colombian with the completion target in 2007 after the agreement between Bogota City and Central Government on the implementation of Study and Planning (SITM) concerning to a mass-transportation in Sept. 1996. This Project was proceeded by the Ex-President and does not seem to be progressed well.



# STUDY SUMMARY SHEET

(F/S)

CSA COL/S 310/99

<b>1. COUNTRY</b>	Colombia		
<b>2. NAME OF STUDY</b>	Feasibility Study on the Project of Highway and Bus-lane of Santa Fe de Bogota		
<b>3. SECTOR</b>	Transportation / Road		
<b>4. TYPE OF STUDY</b>	F/S		
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Secretaria de Transito y Transporte	
	<b>PRESENT COUNTERPART AGENCY</b>		
<b>6. CONSULTANT(S)</b>	Chodai Co., Ltd. Yachiyo Engineering Co., Ltd.		
<b>7. STUDY PERIOD</b>	Mar.1998 ~ Jul.1999 16month(s) ~		
<b>8. SITE OR AREA</b>	Bogota City		
<b>9. MAJOR PROPOSED PROJECT(S)</b>			
<p>Two projects are recommended;</p> <p>(1) Urban Expressway Project The Urban Expressway is 4-Lane dual carriageway and the design speed is adopted at 80 km/h.</p> <p>(2) Trunk Bus Road Project Trunk Bus Road will be constructed on the existing trunk roads and the total bus roads length are about 125 km including 11 km viaduct bus road.</p>			

ボゴタ市高速道路・バスレーン網建設計画調査

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

1.Trunk Bus Roads Project (Autopista Sur and Autopista Norte )

(FY 2000 Domestic Survey)

It proposed by JICA F/S were completed by Bogota City budget.

2. Urban Expressway Project

(FY 2001 Domestic Survey)

No particular progress.

3.Developing public transportation route project

(FY 2001 Overseas Survey)

Subsequent Studies:

9th, August, 2002- 9th Mar., 2003.

Finnsnce:

Financed by FONDATT, around 258 thousand dollarsFONDATT, 25mil. Dollars

4.Constructing car park

Subsequent Studies:

Study related with car park (7 studies) 22nd Jan.1999-Feb.2003.

Finnsnce:

Funded by FODATT.The followings will be achieved by a series of projects.

- setting time-zone and area allowed for parking on roads,
- setting time-zone and area inhibited from parking,
- punishing illegal parkers for fine, and,
- providing guidance for preventing buss drivers from parking on roads or walking spaces.

Profit effects:

- a) contributing to greater security of citizens, smoother passage of emergency vehicles,
- b) abbreviating travel time and cutting economic loss, caused by traffic congestion,
- c) gaining greater economic competitiveness,
- d) raising awareness of civilians about traffic rules, especially related to parking,
- e) eliminating traffic congestion, decreasing traffic accident, and improving city scope,
- f) contributing to construction of new urban model, consistent with National Development Plan

5. Center for Traffic Management Project

19th Sep, 2001 -19th Sep, 2003.

The project conducts survey in real time, on traffic situation, and introduction " Center" to enable flexible response to any case.

(FY 2003 Domestic Survey)

The proposal project for this study was implemented. In addition, the bus network is supposed to be further improved including the plan to extend the trunk bus route.

(FY 2004 Domestic Survey)

1. Proposed Project: Trans Milenio

2. Beneficiaries: Whole Bogota city

3. Degree of Appliance: Drastic improvements in bus system, introduction of new cars (a two-car)

4. Effects: Results of the questionnaire to bus users.

- 1) Traffic congestion drastically improved
- 2) The bus became cleaner, crimes has reduced, and became a safer transportation
- 3) Runs on schedule and became convenient

(FY 2004 Overseas Survey)

Bus Arterial Road Project - Trans-Millennium Outline Plan

1) Content: Economic based prioritising and evaluation of constructed and on construction arterial roads, future arterial roads of Trans-Millennium system, promotion of national and regional agreements, and balance and condition of invested capital, loan based, and non-loan based arterial roads.

2) Period: 2003

3) Finance: Domestic Finance (gasoline tax), the World Bank - amount: 18.1 billion Peso (2001) 79.5 billion Peso (2002) 1.7 trillion (2003)

4) Design/Construction:

1. Phase 1: Caracas arterial road, Northern Highway, and Medellin-Highway
2. Phase 2: Americas-Centauro Arterial Road, Suba Road, and Norte Kito Sur

5) Start of Construction

1. Phase 1: 1999
2. Phase 2: 2001

6) Status of the Progress

1. Completed
2. 30 percent

Phase 3 arterial road construction is scheduled.

(FY 2005 Domestic Survey)

No information to be specifically mentioned.

# STUDY SUMMARY SHEET

(M/P)

CSA COL/S 106/00

<b>1. COUNTRY</b>	Colombia	
<b>2. NAME OF STUDY</b>	The Study on the Regional Environmental Improvement Plan for the Basin of Lake Fuquene in the Republic of Colombia	
<b>3. SECTOR</b>	Administration / Environmental Problems	
<b>4. TYPE OF STUDY</b>	M/P	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Regional Autonomous Corporation of Cundinamarca (CAR)
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	CTI Engineering International Co., Ltd.	
<b>7. STUDY PERIOD</b>	Feb.1999 ~ May.2000 15month(s) ~	
<b>8. SITE OR AREA</b>	Basin Area 1,752 square kilo meters of Lake Fuquene and Inflow/Effluent River	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<ol style="list-style-type: none"> <li>1. Water Resource and Use Management               <ol style="list-style-type: none"> <li>1) Improvement of Irrigation Facilities</li> <li>2) Drainage</li> <li>3) Municipal Water Supply</li> </ol> </li> <li>2. Wastewater Treatment               <ol style="list-style-type: none"> <li>1) Improvement of Sewerage Treatment System (4 Municipalities)</li> <li>2) New Construction of Sewerage Treatment System (10 Municipalities)</li> <li>3) New Construction of Industrial Wastewater Treatment System (48 Factories)</li> </ol> </li> <li>3. Aquatic Plant Control               <ol style="list-style-type: none"> <li>1) Dredging of Lake Bed</li> <li>2) Harvesting /Removal and Composting</li> <li>3) Grass Carp</li> </ol> </li> </ol>		

フケネ湖周辺環境改善計画調査

<b>PRESENT STATUS</b>	In Progress or In Use
	Delayed
	Discontinued

**Description :**

(FY 2001 Domestic Survey)

At the end of the Project, continuous study was requested by Colombian side. JICA notified that Japanese small scale local grant aid could be possible to continue the study. However the present situation of the subsequent Project has not been updated.

(FY 2003 Overseas Survey)

The following projects have been implemented or in progress of implementation.

- 1) Irrigation between Fuquene and Kukunuba and maintenance of equipment for the drainage system.  
Subsequent Study: 6 months from 2003/Jul to 2004/Jan  
Funding: Own financial resources of the Cundinamarca CAR Municipality (303 million COP)  
Construction: 2003/Jul - 2004 /Jan
- 2) Cleaning of Lake Fuquene to Suarez River and removal of aquatic plants in the Suarez River by machinery  
Subsequent Study: 8 months from 2003/Jul to 2004/Mar  
Funding: own financial resources of the Cundinamarca CAR Municipality (882 million COP)  
Construction: 2003/Jul - 2004/Mar
- 3) Recovery of the water surface level of the Lake Fuquene  
Subsequent Study: for 3 months from 2003/Nov to 2004/Jan  
Funding: own financial resources of the Cundinamarca CAR Municipality (4.2 million COP)  
Construction: 2003/Nov - 2004 /Jan
- 4) Optimization of water resources operation of the Lake Fuquene  
Subsequent Study: 4 months from 2003/Jul to 2003/Nov  
Funding: own financial resources of the Cundinamarca CAR Municipality (30 million COP)  
Construction: 2003/Jul - 2003 /Nov
- 5) Optimization of the sewage disposal system in the municipalities of Ubate, Lengwasake, San Miguel de Sema, and Saboya  
Subsequent Study: 13 months from 2003/Oct to 2004/Dec  
Funding: own financial resources of the Cundinamarca CAR Municipality (113 million COP)  
Construction: 2003/Oct - 2004 /Dec
- 6) Prioritizing of the construction of the disposal systems of sewage generated from villages located in the basin of the Lake Fuquene  
Subsequent Study: 13 months from 2003/Oct to 2004/Dec  
Funding: own financial resources of the Cundinamarca CAR Municipality (36 million COP)  
Construction: 2003/Oct - 2004 /Dec
- 7) Reduction of pollutants exhausted from the dairy product industry existing in the basin of the Lake Fuquene  
Subsequent Study: 13 months from 2003/Dec to 2004/Dec  
Funding: own financial resources of the Cundinamarca CAR Municipality (22 million COP)  
Construction: 2003/Oct - 2004 /Dec
- 8) Study of impacts on the environment of grass-eating carp introduced for the sake of controlling propagation of aquatic plants in the Lake Fuquene  
Subsequent Study: 12 months 2004/Jan to 2004/Dec  
Funding: own financial resources of the Cundinamarca CAR Municipality (11 million COP)  
Construction: 2004/Jan - 2004/Dec
- 9) Study on composting, application and disposal methods  
Subsequent Study: 11 months 2003/Aug to 2004/Jul  
Funding: own financial resources of the Cundinamarca CAR Municipality (71 million COP)  
Construction: 2003/Aug - 2004/Jul
- 10) Validation Study on water channel construction toward control of emerging plants  
Subsequent Study: 12 months from 2003/Oct to 2004/Oct  
Funding: own financial resources of the Cundinamarca CAR Municipality (49 million COP)  
Construction: 2003/Oct - 2004/Oct
- 11) Birds inhabiting within the region, surviving individuals and unexplored habitats - study on habitat of birds  
Subsequent Study: 6 months from 2003/Jul to 2004/Jan  
Funding: own financial resources of the Cundinamarca CAR Municipality (10 million COP)  
Construction: 2003/Jul - 2004 /Jan
- 12) Ecological preservation in the basin of the Lake Fuquene  
Subsequent Study: 9 months from 2003/Jul to 2004/Apr  
Funding: own financial resources of the Cundinamarca CAR Municipality (5 million COP)  
Construction: 2003/Jul - 2004/Apr

(FY 2004 Domestic Survey)

No information to be specifically mentioned.

(FY 2005 Domestic Survey)

No information to be specifically mentioned.

# STUDY SUMMARY SHEET

## (M/P)

CSA COL/S 130/01

<b>1. COUNTRY</b>	Colombia	
<b>2. NAME OF STUDY</b>	The Study on the Disaster Prevention in the Bogota metropolitan area	
<b>3. SECTOR</b>	Transportation / Meteorology & Seismology	
<b>4. TYPE OF STUDY</b>	M/P	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Bogota City Government, Direction of Emergency Prevention and Attention
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Pacific Consultants International (PCI)	
<b>7. STUDY PERIOD</b>	Mar.2001 ~ Mar.2002 12month(s) ~	
<b>8. SITE OR AREA</b>	Bogota Metropolitan Area	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>Major projects include:</p> <ol style="list-style-type: none"> <li>1. Development of governmental organizations, specialized in disaster countermeasures;</li> <li>2. Sharing disaster information and database within the government sector;</li> <li>3. Reduction of vulnerable buildings to disasters and developing monitoring system for construction;</li> <li>4. Review of the mandated standards to withstand temblor of brick buildings;</li> <li>5. Establishment of the Disaster Information Management System (DIMS);</li> <li>6. Preparation of disaster prevention plans for public service agencies;</li> <li>7. Implementation of education programs on disaster prevention for local people;</li> </ol> <p>and,</p> <ol style="list-style-type: none"> <li>8. Conducting the pilot study.</li> </ol>		

ボゴタ首都圏防災対策基本計画調査

<b>PRESENT STATUS</b>	In Progress or In Use
	Delayed
	Discontinued

**Description :**

(FY 2002 Domestic Survey)

Based on the Study, the Bogota administration have launched management of earthquake disaster. At the initial stage, preparation of the emergency response plan is in progress. However, due to lack of necessary skills and human resource, the City has continued request for Japan's technical assistance.

(FY 2004 Domestic Survey)

No particular comments

(FY 2004 Overseas Survey)

In terms of the disaster prevention in capital region in Bogota, within the various final recommendation, the quake-resistance enhancement in Bogota capital region. Considering it, in the capital region, among the departments enhanced the cooperation for the strengthening the following major constructions. Educational facilities, hospitals, public transportation organisations, vehicles and pedestrian bridges, and athletic facilities. 1 trillion and 200 billion Pezos was laid down as a crisis control for the positive development plan and enforcement of the constructions in the city are included in this. Also, for the applications which have been submitted to JICA by the crisis prevention and the responding department, received the survey groups from Japan, and earth slide, flood monitoring and early alarming system, early damage prediction survey after the earthquake in Toun Ferro river basin was implemented.

1) Application date: 2002/Aug

2) Date of dispatching: 2004/Nov/18 - Dec/09

3) Project name: Earth slide, and flood monitoring and early alarming system, early damage prediction survey after the earthquake

4) Applicable area to the project: Toun Ferro River basin between La Regadera lake and Bogota River. Ciuda Bolivar , includes Toun Ferrito, Bosa, Soacha

5) Applicable basin area to the project:

6) Earth slide monitoring targets: Small-size slides

7) Organization in charge: DPAAE

8) Survey dates: 2005 June- ( one year and half)

9) Major purposes for this survey:

(1) Monitoring of earth slide, flood in Toun Ferro river basin, designing and introducing an early alarming system

(2) Facilitation of six rivers in Toun Ferro river basin and designing and introducing an earth slide model in the area mentioned.

(3) Introducing an early assessment system after the earth quake in Ciudad Bolivar area.

(4) Setting up the observatory for the activities of responding to the crisis in pilot area, asking for the residents to participation about the monitoring, introducing the early alarming system in Toun Ferro river basin.

(5) Implementing the technical know-how transfer for the Colombian staff whom is dealing with this project.

Beneficial effects for this survey are as follows:

1) The survey results were used by the methods in the followings:

(1) First public action of the responding plan for the earthquake crisis. This proposal was accepted as No. 008 by the city municipal office.

(2) Utilised as a guideline for crisis responding plan for earthquake

(3) Introducing the construction damage assessment methods after earthquake and development of training tools.

Other information was utilized as for other plans and the basic references by the Bogota crisis prevention and DPAAE.

(1) Currently, it is utilized for the second strategy survey; transferring of the constructions, maintenance, alleviation of crisis which are necessary for the residents in the capital region

(2) Reorganizing information which was collected from the various areas for the designing of the important construction lists.

(3) Designing a plan , cooperated with Cundinamarca prefecture, responding crisis in local area.

Currently, collected information through the survey was widely used for the building up of an assistant preparation plan which was about the earthquake responding plan in Bogota city, submitted by the PNUD.

(FY 2005 Domestic Survey)

No information to be specifically mentioned.

(FY 2005 Overseas Survey)

The subsequent study and project have not been implemented. The S/W regarding the monitoring for landslides and floods and the study for early alarming system and disaster evaluations right after earthquakes will be singed in September 2005.

Technological cooperation:

Training:

Disaster relief and system and infrastructure for rehabilitations

Trainee: one person

Training period: 2005/May/14 - 2005/Jul/30

Others: In relation to signatures on the basic plan and the memorandums of meetings regarding damage situations, follow-up missions of "The Study on the Disaster Prevention in the Bogota metropolitan area" in order to respond to the monitoring and fear of the AIS and the DPAAE.

# STUDY SUMMARY SHEET

(M/P)

CSA COL/S 126/02

<b>1. COUNTRY</b>	Colombia	
<b>2. NAME OF STUDY</b>	Study on Ground Water Development in the Bogota Plain in the Republic of Colombia	
<b>3. SECTOR</b>	Social Welfare / Disaster Relief	
<b>4. TYPE OF STUDY</b>	M/P	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Bogota Water Supply and Sewerage Company
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Yachiyo Engineering Co., Ltd. Asia Air Survey Co., Ltd.	
<b>7. STUDY PERIOD</b>	Nov.2000 ~ Feb.2003 27month(s) ~	
<b>8. SITE OR AREA</b>	(1) Groundwater Development and Conservation Project in Eastern Hills of Bogota Plain (Eastern Project) (2)Groundwater Conservation Plan of Area of High Groundwater Use in Bogota Plain (Western Project)	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>(1) Groundwater Development and Conservation Project in Eastern Hills of Bogota Plain (Eastern Project): Purpose of the project in Eastern Hills is i) water supply to Bogota City and neighboring cities and ii) improvement of water environment of Bogota Plain. By this project, groundwater will be newly developed from 63 wells, amounting to 2m<sup>3</sup>/s for ordinary water supply and 4m<sup>3</sup>/s for emergency water supply. On the other hand, total volume of 0.45m<sup>3</sup>/s should be artificially recharged into the aquifers from 13 wells for groundwater conservation of Eastern Hills. Areas for water supply are: (a) Cerros Norte, (b) Santana/Chico, (c) Suba, (d) Soacha, (e) Vitelma, (f) San Diego, (g) Hills of Yerba Buena .</p> <p>(2)Groundwater Conservation Plan of Area of High Groundwater Use in Bogota Plain (Western Project): Groundwater resource is to be conserved in areas of high groundwater use for floriculture, irrigation and industry. This project will enable the current water use to be continued sustain ably. Areas for artificial recharge are: i) Subachoque River Basin, ii) Chicu River Basin, iii) up-stream of Frio River Basin. Groundwater recharge will be carried out amounting to 0.5m<sup>3</sup>/s though 28 recharge wells that will be drilled in 14 sites of above three river basin. Items for research and development of technology of groundwater use are: (a) Reuse of drained water of irrigation, (b) Use of rainwater for irrigation, (c) Use of water of Bogota River for irrigation, (d) Change of sites for new flower production, (e) Improvement of irrigation efficiency.</p>		

ボゴタ平原持続的地下水開発計画調査

<b>PRESENT STATUS</b>	In Progress or In Use
	Delayed
	Discontinued

**Description :**

(FY 2003 Domestic Survey)

This Study formulated Master Plan that aimed at sustainable groundwater use of Bogota Plain. During this study, Colombian side submitted request for implementation of Feasibility Study to Japanese Government in 2001 and 2002. This Feasibility Study is for Groundwater Development and Conservation Project in Eastern Hills of Bogota Plain (Eastern Project) that was finally proposed by Master Plan Study. Though outline of this project was planned in the M/P Study, feasibility Study for detailed design is necessary before implementation of the project. Colombian side strongly recognize that the current water supply system is vulnerable against natural disaster and they expect that such a situation should be improved immediately. Moreover, they expect that replacement of water resources from surface water to groundwater can improve water environment of Bogota Plain and will also improve financial condition of the company. Bogota City and Bogota Water Supply and Sewerage Company strongly request implementation of feasibility Study as soon as possible before the implementation of new project that will produce great profits for many sectors.

(FY 2003 Overseas Survey)

Even after completion of the study, the investigation of Bogota Water Channel has been maintained through the underground water level monitoring and the weather station that were provided by Japan. The investigation has been made by the Water Channel Hydrology Office every month. The Research Operation Committee, which was established for the purpose of view unification in relation to underground water and centralization of information during the execution phase of investigation with NGEOMINAS, DAMA, IDEAM, CAR, ASOCOLFLORES and ACUEDUCTO as members, is still active today and has covered more than 70% of the Bogota Plain.

In August 2002, ACUEDUCTO requested the Japanese government through ACCI to continue its support to companies in association with the feasibility study on underground water and the possibility of its utilization. No responses have been received on this project, which may economically and environmentally enable sustainable use of underground water for the sake of strategic supply to the capital area.

(FY 2004 Domestic Survey)

## 1. Subsequent studies:

As for the F/S of prioritised project proposed in the Study on Ground Water Development in Bogota Plane, request has been made for an implementation of Study on Bogota city ground water development/preservation plan by the Colombian government to Japan. JICA has conducted P/S of the above study in November 2004. Currently JICA is considering for the implementation of the project.

## 2. Finance

- 1) Project name: The Study on Sustainable Groundwater Development in Bogota City
- 2) Funding party: undetermined Amount 5,800 million JPY
- 3) Content: Based on the Study of Sustainable Groundwater Development for Bogota Plain, prioritised project was proposed for eastern and western region. Eastern project aims to develop groundwater in eastern mountainous area as a source for water supply in Bogota city. Western project aims to secure groundwater resource by developing artificial groundwater cultivation system in eastern part of Bogota plain.

## 3. Design/Construction

JICA is considering for implementing sustainable groundwater development in Bogota city, which the F/S for eastern project is planned to be conducted.

(FY 2004 Overseas Survey)

Following projects has been completed or in progress using Bogota Water Supply and Sewerage Company's capital.

- 1) Monitoring of meteorological observation station: bimonthly one-issue-completion. 198,000 USD
- 2) Maintenance, mowing, coating, oiling, and repair. 99,000 USD
- 3) Groundwater level monitoring: phase 4 well and Guadalupe: data recording of automatic observation equipment, mowing 116,160 USD.
- 4) Water quality of phase 4 well and Guadalupe: sampling and chemical analysis
- 5) Cleaning of well and groundwater quality physical chemical and microbiological analysis 47,040 USD
- 6) Continuance of well monitoring on drinking water, agricultural water, industrial water in 100 sites. Special research on contaminant, which may have effect to the treatment of major water source.
- 7) Continuance of refilling, supply of water vain and rehabilitation pilot project: Cooperative project follow contract 43,077.76 USD period: 2003/May - Nov
- 8) Bogota plain water vain lists. New basin: Contract to improve cooperation project information 122,438 USD period 2002/Dec - 2003/Sep
- 9) Management of Bogota plain water vain lists. New basin: Contract to improve cooperation project information 6,000 USD period: 2002/Dec - 2003/Apr
- 10) Ground water project and coordination assistance contract: Consulting, assistance, coordination, budget planning, documentation. 1,197,740 USD period 2002-2003 2004-2005

Benefits are as follow:

- 1) Improvement of knowledge of groundwater resource in savannah.
- 2) Identification of important themes to sustain water resource balance improvement, such as water resource lists.
- 3) Able to conduct activities within and with institutions and to increase the efficiency from technical and economical perspective in researching same theme from a different perspective.
- 4) To identify availability of groundwater use in emergency and to search for a measure to improve living cost in the highland of the city.
- 5) Able to understand environmental technologies, which were previously not understood.
- 6) Although the actual beneficiaries has not been calculated, it is now able to correspond to emergencies in the city, improvement in living cost, and water shortage in northern and southern Bogota area.

(FY 2005 Domestic Survey)

Groundwater development in Bogota was proposed in the Study. F/S was requested by the Colombia government, which a preparatory study was conducted by JICA in December 2004. The study team was re-dispatched, and S/W of "Sustainable water supply programme based on comprehensive water resource management in Bogota" was concluded in April 2005. The objectives of the Study are as follows. The Study has not been conducted, though possible to be implemented in 2006.

Objectives: Water resource management/sustainable water supply programme in Bogota, considering the following points

1. Poor area in Bogota (security of minimum water supply)
2. Human security and disaster prevention
3. Environment and sustainability
4. Organisation/system

(FY 2005 Overseas Survey)

No information to be specifically mentioned.



# STUDY SUMMARY SHEET

## (M/P)

CSA CRI/S 101/77

<b>1. COUNTRY</b>	Costa Rica	
<b>2. NAME OF STUDY</b>	Regional Study of the Hinterland of Caldera and Puntarenas Ports	
<b>3. SECTOR</b>	Development Plan / Integrated Regional Development Plan	
<b>4. TYPE OF STUDY</b>	M/P	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	National Planning Office
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	International Development Center of Japan (IDCJ)	
<b>7. STUDY PERIOD</b>	Feb.1977 ~ Nov.1977 9month(s) ~	
<b>8. SITE OR AREA</b>	Gran Puntarenas and Pacifico Central areas along the Pacific Coast	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>1.Gran Puntarenas Area</p> <p>1)El Rodare Blanca urban planning 2)Conservation of Puntarenas sand bar and urban renewal 3)Development of the distribution center near Caldera port 4)Industrial area planning</p> <p>5)Projects concerning Industrial area -Facilities for human resours training -Facilities for research of construction materials -Greenbelt</p> <p>6)Agricultural products processing and related industry</p> <p>-Fish products processing facilities -Grain snd meat processing factories -Industry related agricultural products</p> <p>7)Water supply for residents and industry</p> <p>8)Transportation Development -Terminal for trucks and passengers</p> <p>-Improvement of railway and switchyard -Road sign and traffic signal</p> <p>9)Elementary sewerage facilities 10)protection against water pollution of sea products processing 11)Development of recreation center</p> <p>2.Pacific Central Area</p> <p>1)Supplement reserch of regional economic development</p> <p>2)Development of suburban horticulture</p> <p>3)Development of fishely activity 4)Development of water resource</p> <p>5)Introduction of farmers' income surveys</p> <p>6)Program of protection against environmental pollution</p> <p>7)Sewerage using soil</p> <p style="padding-left: 40px;">(couninued to down below)</p>		

太平洋岸新港背後地域開発計画

<b>PRESENT STATUS</b>	In Progress or In Use  Delayed  Discontinued
-----------------------	--

**Description :**

The findings of the study were utilized to formulate the development policy framework for the Gran Puntarenas area.

(FY1991 Overseas Survey)  
No additional information.

(FY1993 Overseas Survey)  
Present status of this project is discontinued.

(FY1994 Domestic Survey)  
No additional information.

(FY 1996 Overseas Survey)  
The outputs of the study were being utilized to formulate policy and so on for a while, but they are not being used at all nowadays due to the changes of economical and political situations.

# STUDY SUMMARY SHEET

(F/S)

CSA CRI/S 301/81

<b>1. COUNTRY</b>	Costa Rica	
<b>2. NAME OF STUDY</b>	Second Stage Expansion Project of the Port of Caldera	
<b>3. SECTOR</b>	Transportation / Port	
<b>4. TYPE OF STUDY</b>	F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Ministry of Public Works and Transport(MOPT)
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	The Overseas Coastal Area Development Institute (OCDI)	
<b>7. STUDY PERIOD</b>	Jun.1980 ~ Dec.1981 18month(s) ~	
<b>8. SITE OR AREA</b>	30km south of Punta Arenas City	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
-Breakwater 150m -Container Berth (-12m) 250m -Dredging, Reclamation 820,000cu.m -Shore Protection 440m -Cargo Handling Facilities 1 set		

<b>PRESENT STATUS</b>	Completed or In Progress Completed Partially Completed Implementing Processing	Promoting Delayed or Suspended Discontinued or Cancelled
<p><b>Description :</b></p> <p>Reasons for Cancellation:          (FY 1991 Overseas Survey)          There is no IDB financing as long as we observed. Stage II was suspended because of the economic problems.</p> <p>Alternative Plan:          (FY 1991 Overseas Survey)          Instead of this project, Maintenance Project of the Port of Caldera is planned.</p>		

# STUDY SUMMARY SHEET

(F/S)

CSA CRI/S 302/86

<b>1. COUNTRY</b>	Costa Rica	
<b>2. NAME OF STUDY</b>	Maintenance Project of the Port of Caldera	
<b>3. SECTOR</b>	Transportation / Port	
<b>4. TYPE OF STUDY</b>	F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Ministry of Public Works and Transport(MOPT)
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	The Overseas Coastal Area Development Institute (OCDI) Central Consultant, Inc.	
<b>7. STUDY PERIOD</b>	Sep.1985 ~ Jul.1986 10month(s) ~	
<b>8. SITE OR AREA</b>	Caldera Port on the northwest Pacific coast	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>The way to maintain Port of Caldera was studied. The first phase of the port was finished in 1981 and the second phase was studied to meet increasing cargo and containerlization.</p> <p>-Purchase of a dredging ship and other construction machines related : 1 set -Breakwater (construction and transfer) : 362m -Dredging : 72,000cu.m</p>		

カルデラ港維持整備計画

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed Partially Completed Implementing Processing	Delayed or Suspended   Discontinued or Cancelled
<p><b>Description :</b></p> <p>(FY 1996 Overseas Survey) Subsequent Studies: Mar.1991 MOPT contracted with North American consultant to conduct "Study for Grain Control at Cardera Port" In this study, it was conducted that Cardera Port is the only port which has a capacity to import grains. Jul.1995 MOPT examined "Study of Fiscal and Economic Situation at Cardera Port" and concluded that the Second Expansion Plan is not feasible. To utilize the port efficiently, MOPT proposed 1)transformation of passenger terminal to Puntarenas Port (under implementation financed by the Govt. of Taiwan) 2)construction of breakwater, 3)construction of grain terminal, 4)installation of crane. Nov.1995 "National Port Development Plan"was executed by OCDI with fund from World Bank. The proposal on Cardera Port was almost same as proposal of "Study of Fiscal and Economic Situation at Cardera Port"</p> <p>(1) Construction and Transfer of Breakwater (362 m) Finance: unclear for the part of 282 m already completed own fund for remained 80 m  Construction: A part of 282 m was completed and the rest of 80 m scheduled to be completed in the end of 1997</p> <p>(2)Dredger and Related Equipment MOPT decided not to purchase equipment but to contract with dredging company. (FY 1998 Overseas Survey) Two front loaders for container, two headers with carrier for transferring container, Two 30-ton forklift, a 2,400 HP tugboat, 6 vehicles have been procured.</p> <p>(3)Dredging of inner port (FY 1998 Overseas Survey) It is to be completed by June 1999. A total cost of US\$230 million is demanded. 83% of the expenditure will be beared by INCOP, whereas the remaining 17% by MOPT.</p> <p>(4)Grain Terminal (FY 1998 Overseas Survey) INCOP made a contract with IMNSA HOSKONING, a consortium of Costa Rica and Holland in Dec. 1996 to comission the market survey, project draft formation, technical survey for the development of port infrastructure. Sinc INCOP did not have their own budget and financial sources, they decided to adopt the participation of private enterprizes for fund procurement, implementation, and operation of the project. Documents for bid and technical documents were already submitted to MOPT.</p> <p>Background: Negotion is on going with World Bank and the Govt. of Finland.</p> <p>(5)Tuna Terminal (FY 1998 Overseas Survey) INCOP made a contract with BEL INGENIERIA in Dec. 1996 to comission the market survey, project draft formation, technical survey for the development of port infrastructure. INCOP decided to adopt the participation of private enterprizes for fund procurement, implementation, and operation of the project. Documents for bid and technical documents were already submitted to MOPT.</p> <p>(6)Others (FY 1998 Overseas Survey) Reconstruction of floor of the pier: completed. 3-ton bucket: completed. Reconstruction of corridor and access road: under construction. It is to be completed by April 1999. Installation of 52 defenses on the pier: completed. Modernization/improvement of buildings and facilities: completed. Afforestation of the port: completed. Improvement of electric system and illumination: Reconstruction of illumination and installation of new electric system.</p>		

# STUDY SUMMARY SHEET

## (M/P+F/S)

CSA CRI/A 201B/88

<b>1. COUNTRY</b>	Costa Rica																						
<b>2. NAME OF STUDY</b>	Limon Integrated Agricultural Development Project																						
<b>3. SECTOR</b>	Agriculture / (Agriculture in) General																						
<b>4. TYPE OF STUDY</b>	M/P+F/S																						
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Servicio Nacional de Aguas Subterranas, Riego y Avenamiento (SENARA)																					
	<b>PRESENT COUNTERPART AGENCY</b>																						
<b>6. CONSULTANT(S)</b>	Naigai Engineering Co., Ltd. Pacific Consultants International (PCI) Sanyu Consultants Inc.																						
<b>7. STUDY PERIOD</b>	Feb.1987 ~ Oct.1988 20month(s) ~																						
<b>8. SITE OR AREA</b>	Limon area located in eastern coastal zone of the Atlantic																						
<b>9. MAJOR PROPOSED PROJECT(S)</b>																							
<p>&lt;M/P&gt;Elimination of the seasonal flood damage and improvement of the poor drainage area on the existing arable land are recognized as the major components of the project to promote the stable agricultural management in the area.</p> <p>&lt;F/S&gt;B block which has the highest priority is selected as the objective area for the F/S(19,500 ha). Summaries of the project components are as follows;</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">1.Drainage Improvement Plan</td> <td style="width: 10%; text-align: center;">&lt;M/P&gt;</td> <td style="width: 10%; text-align: center;">&lt;F/S&gt;</td> <td style="width: 50%;"></td> </tr> <tr> <td style="padding-left: 20px;">New construction of principal drainage canals</td> <td style="text-align: center;">124.0km</td> <td style="text-align: center;">32.10km</td> <td></td> </tr> <tr> <td style="padding-left: 20px;">Rehabilitation of principal drainage canals</td> <td style="text-align: center;">43.9km</td> <td style="text-align: center;">25.95km</td> <td></td> </tr> <tr> <td style="padding-left: 20px;">New construction of secondary drainage canals</td> <td style="text-align: center;">218.7km</td> <td style="text-align: center;">42.40km</td> <td></td> </tr> <tr> <td style="padding-left: 20px;">Rehabilitation of secondary drainage canals</td> <td style="text-align: center;">-</td> <td style="text-align: center;">24.70km</td> <td></td> </tr> </table> <p>2.Agricultural priduction Plan Establishment of 7 farming patterns</p> <p>3.Flood Protection Plan Foundation of the embankment 118.2km 56.10km</p> <p>4.Road network Plan New construction 81.5km 13.60km Rehabilitation 151.3km 46.00km</p> <p>5.Land Consolidation Plan 44,240ha Improvement of drainage canals and farm roads</p> <p>6.Rural Infrastructure Plan Water supply facilities for 5 villages(on F/S)</p> <p>7.Settlement and rural development plan Improvement of public facilities in three new settlement areas(on M/P)</p> <p>8.Agricultural Promotion Plan Strengthening of agricultural supporting organizations, Improvement of famer's organizations, Establishment of the agricultural machinery centers, Establishment of the post-harvest facilities</p>				1.Drainage Improvement Plan	<M/P>	<F/S>		New construction of principal drainage canals	124.0km	32.10km		Rehabilitation of principal drainage canals	43.9km	25.95km		New construction of secondary drainage canals	218.7km	42.40km		Rehabilitation of secondary drainage canals	-	24.70km	
1.Drainage Improvement Plan	<M/P>	<F/S>																					
New construction of principal drainage canals	124.0km	32.10km																					
Rehabilitation of principal drainage canals	43.9km	25.95km																					
New construction of secondary drainage canals	218.7km	42.40km																					
Rehabilitation of secondary drainage canals	-	24.70km																					

リモン地区農業総合開発計画

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

## Reasons for Delay or Cancellation:

The change of circumstances at the target area, financial problem and lower priority given.

(FY 1997 Domestic Survey)

It is difficult to find finance newly for the implementation of the project from international organizations because economic structure adjustment is on going

## Finance:

SENARA requested the OECF loan, but agreement has not concluded yet.

## Situation:

(FY 1992 Overseas Survey)

The revised F/S is necessary in order to adjust the project to new circumstances. The project in B block focusing the flood protection schedule should be implemented. Finance of the project is pending until the M/P and the study of B block are completed.

(FY 1993 Overseas Survey)

SENARA requested MIDEPLAN to provide necessary cooperation for final plan. However, it has not been realized yet.

## Other Situations:

The object area located in coastal zone of the Atlantic is left behind the agricultural development though suitable area for agricultural development still remains in and around the object area.

Qualitative improvement and quantitative enlargement of the agricultural production are the urgent subjects in the nation. Accordingly, implementation of the project is strongly anticipated.

(FY 1991 Overseas Survey)

The project is being implemented by the fund of banana producer who own nearly 90% of the target area.

(FY 1993 Overseas Survey)

This study played an important role as a base of banana plantation development in the area.

(FY 1995 Domestic Survey)

At present, the local peoples are improving the drainage system and facilities at this area by private base. However, it seems to have no possibility to materialize this project as there are no way to get the fund and no improvement of the surrounding circumstances at the target area.

(FY 1995 Overseas Survey)

Many canals and rivers had been improved with a total length of 37.5km during FY 1991 to 92. Since 1992, the price and the other conditions with banana export, the traditional exporting agricultural product, had been improved considerably. So, it became an urgent matter to renovate the farmland which is impossible to cultivate due to the flood water. It becomes possible to invest for development of the drainage channels in order to protect the flood.

(FY 1996 Domestic Survey)

The improvement of the drainage system has been undertaken in a part of area on private base, referring to the report of this Study. However, it is unknown how the project has been implemented in a whole area.

(FY 1998 Overseas Survey)

The rehabilitation of drainage project etc. (new construction/rehabilitation of principal drainage canals) has been undergoing with the national committee fund, SENARA fund, America's PL-480 fund. Other proposed projects need to be reconsidered including the fund-raising device.



## STUDY SUMMARY SHEET (Basic Study)

CSA CRI/A 501/88

<b>1. COUNTRY</b>	Costa Rica	
<b>2. NAME OF STUDY</b>	Fisheries Resources Survey of the Pacific Coast	
<b>3. SECTOR</b>	Fishery / Fishery	
<b>4. TYPE OF STUDY</b>	Basic Study	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	CIMAR(Work-1) MAG (Work-2)
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Nichiro Corporation	
<b>7. STUDY PERIOD</b>	Feb.1987 ~ Mar.1989 25month(s) ~	
<b>8. SITE OR AREA</b>	North shore of the Pacific Ocean in Costa Rica (area: 10,118 sq.m, population:192,000, water basin:2,229nAEm2)	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>Master Plans for development were proposed, the Project cost was not estimated.</p> <p>Work-I: Short-term planning:</p> <ul style="list-style-type: none"> <li>a. Project of development of unexploited fishery resources in the Project of creation of a model fishing village.</li> <li>b. Investigation for development of unexploited fishery resources.</li> <li>c. Project of processing for marine products.</li> </ul> <p>Work-II: Short-term planning:</p> <ul style="list-style-type: none"> <li>a. Project of creation of a model fishing village.</li> <li>b. Project of training for fishermen by INA, who has experiences to execute the education and training for them.</li> <li>c. Promotion of Fishery Cooperation.</li> </ul> <p>Mid and long-term planning:</p> <ul style="list-style-type: none"> <li>a. Project of training of fishermen, into the planning of education and training for fishermen.</li> <li>b. Project of improvement of distribution of the marine products.</li> <li>c. Project of creation of fishing villages.</li> </ul>		

<b>PRESENT STATUS</b>	In Progress or In Use
	Delayed
	Discontinued

**Description :**

## Request for Assistance:

Mar.1989 MAG and CIMAR submitted to the Japanese Embassy in Costa Rica for assistance on the following proposals.

- 1.Construction of a pier, a processing plant and the related facilities including a trading center at Coco beach.
- 2.Building of an Oceanographic Research Vessel.

## Utilization of the Study:

(FY 1991 Overseas Survey)

CIMAR seems this survey as academic research not as development study and is utilizing the data as such.

(FY 1996 Overseas Survey)

According to the result of JICA study, the importance of statistics

was recognized and data collection system was established. The Costa Rica government requests for implementation of fisheries resources survey of which results can be available for the local fishermen engaging in small scale fishing.

## STUDY SUMMARY SHEET (Basic Study)

CSA CRI/S 501/91

<b>1. COUNTRY</b>	Costa Rica	
<b>2. NAME OF STUDY</b>	Mapping Project for Metropolitan Area of San Jose City	
<b>3. SECTOR</b>	Social Infrastructure / Survey & Mapping	
<b>4. TYPE OF STUDY</b>	Basic Study	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Instituto Geografico National (IGN)
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	International Engineering Consultants Association Asia Air Survey Co., Ltd.	
<b>7. STUDY PERIOD</b>	Oct.1988 ~ Dec.1991 38month(s) ~	
<b>8. SITE OR AREA</b>	San Jose Metropolitan Area	
<b>9. MAJOR PROPOSED PROJECT(S)</b>	<div style="border: 1px solid black; width: 100%; height: 15px; margin-bottom: 5px;"></div> Aerial photography 1:20,000 (16,000sg.)  1/10,000 Topographic maps 79 (1,600sg)  1/10,000 Land use maps 40 (800sg)	

サンホセ首都圏都市基本図作成

<b>PRESENT STATUS</b>	<p>In Progress or In Use</p> <p>Delayed</p> <p>Discontinued</p>
<p><b>Description :</b></p> <p>Utilization of the Study: The outputs of this project (aerial photography and maps) are managed by the Instituto Geografico Nacional and widely used in the public planning.</p> <p>(FY 1992 Overseas Survey) The outputs of this project are distributed to the governmental, academic and private organizations. The digitalization of the maps (three layers) is working for establishment of geographic information system.</p> <p>(FY 1995 Overseas Survey) The performances of this project distributed to many organizations and are being utilized for various planning works such as -Urban Planning, -Plan for Public Transportation, -Plan for Treatment of the Wasted Materials, -Plan for Main Road Network, -Plan for Communication Network, -Plan for Network of Water Supply &amp; Sewage, etc.</p> <p>(FY 1996 Domestic Survey) After the completion of the Study, a long-term expert was dispatched for the technical transfer on the production of atlas.</p> <p>(FY 1996 Overseas Survey) Digitalized maps for other 50 cities are to be made. Request for financial aid is supposed to be submitted to JICA in 1998.</p> <p>(FY 1998 Overseas Survey) The maps have been digitized from 1992. Digitized maps in the fields of roads, rivers, and buildings are already completed. Digitized maps of air photographs, renewal of the present map, and drawing of topographic map of 1:10,000 are expected in the future with the cooperation from Japan.</p> <p>(FY 1999 Overseas Survey) First printings of some maps are out of stock.</p>	



<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :****(1)Improvement of Juan Santamaria International Airport**

The Costalican government was determined to implement a part of the short-term development project (the expansion of the passenger terminal building and the construction of new apron) upon the completion of a draft final report.

**Subsequent Studies:**

B/D completed  
1993 D/D (government fund)

**Finance:**

Government fund

**Construction:****\*Phase I (FY 1995 Overseas Survey)**

The government approved to allocate US\$ 12 mil. for the project implementation. (\*US\$ 7.5 mil. for the improvement of dormitories, radar facilities and a control tower)

**-Construction of Fuel Storage Facilities**

Completed (location was changed from the place designated in M/P)

**-Expansion of Passenger's Terminal Building**

Scheduled to be implemented

Phase I: for 18 months commencing in May, 1996

Phase II: for 12 months commencing in September, 1996

**-Construction of Air Cargo Terminal Building(US\$ 2 mil.)**

-Construction of Platform for Air Cargo (US\$ 1.3 mil.)

**-Construction of Radar Facilities**

Scheduled to be implemented for eight months commencing in

Feb.1996

**(FY 1997 Domestic Survey)**

After 1994, a part of new apron which has been included in F/S short term plan, was constructed as international apron. Moreover, a remote terminal building was constructed accompanying the apron. The terminal is used as a waiting lobby for passengers.

These facilities will compose a part of a future main terminal.

**\*Phase II****Finance:**

(FY 1998 Overseas Survey)(FY 1999 Overseas Survey)

BOT Model (20 years of concession), AGI (Airport Group International), US\$180mil.

**Construction:**

(FY 1998 Overseas Survey)

Tenders are now made.

**\*Content**

Maintenance of airport and its management.

(FY 1999 Overseas Survey)

Construction of the passenger terminal building is to be started in June 2000. AGI will start managing the airport in Apr. 2000. Expansion of the platform and rehabilitation of the concrete of the existing runway are to be started in Nov. 2000. Expansion of the boarding gates (11 gates) is to be started in Nov. 2000. AGI will continue improving the facilities by 2020.

**(2)Liberia International Airport**

(FY 1998 Overseas Survey)

The enlargement of the passenger terminal etc. is scheduled in 1999. The maintenance issue of the Airport has been remarked in the view of tourist development on the Pacific Ocean side. The reconsideration of the present M/P and its implementation of F/S are looked upon. The government looks forward to Japan's cooperation.

(FY 1999 Overseas Survey)

Expansion of the existing platform and improvement of the passenger terminal are to be implemented during the year of 2000.

**(3)Limon International Airport**

(FY 1998 Overseas Survey)

The rehabilitation of landing strip and passenger terminal is scheduled in 1999. The project has been put off as the number of Airport users turned out to undergo the expected number in M/P because of the delay of tourist development .

(FY 1999 Overseas Survey)

Rehabilitation of the runway and platform and improvement of the passenger terminal are to be implemented in the year of 2000.

# STUDY SUMMARY SHEET

## (M/P+F/S)

CSA CRI/S 206/00

<b>1. COUNTRY</b>	Costa Rica	
<b>2. NAME OF STUDY</b>	The Study for the Land Use Plan in the Coastal Zones of the Tourist Planning Units in the Republic of Costa Rica	
<b>3. SECTOR</b>	Development Plan / Integrated Regional Development Plan	
<b>4. TYPE OF STUDY</b>	M/P+F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Instituto Costarricense de Turismo (ICT)
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Pacific Consultants International (PCI) Yachiyo Engineering Co., Ltd.	
<b>7. STUDY PERIOD</b>	Feb.2000 ~ Dec.2000 10month(s) ~	
<b>8. SITE OR AREA</b>	M/P: South Guanacaste Region and Corcovado-Golfito Region	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>1. Land Use Management: To review and revise existing regulatory plans</p> <p>1) South Guanacaste Region: Tourism centers (Samara-Carrillo primary tourism center, Norsa-Garza secondary tourism center, San Miguel-Coyote secondary tourism center, Sanata Teresa-Mal Paris secondary tourism center).</p> <p>2) Corcovado-Golfito Region: Tourism centers (Golfito Town primary tourism center, Puerto Jimenez primary tourism center, Drake secondary tourism center, Zancudo secondary tourism center, Pavales secondary tourism center).</p> <p>2. Infrastructure Development: Tourism development and water resource development for local communities</p> <p>1) South Guanacaste Region: Regional road improvement: Carrillo-Samara-Nosara Town, San Francisco de Coyote- San Miguel, San Francisco de Coyote-Betel-Bello Horizonte-Santa Teresa. / Water Supply: Santa Teresa-Mal Pais secondary tourism center, Samara-Carrillo secondary tourism center. / Sewage Treatment: Samara-Carrillo primary tourism center.</p> <p>2) Corcovado-Golfito Region: Regional road improvement: Puerto Jimenes-Rilcon, Golfito Town-Conte-Punta Banco, Mouthof the Sierpe River-Agujitas of Drake. / Water Supply: Puerto Jimenez Town and Playa Platanares, Agujitas Community and in Drake secondary tourism center. / Sewage Treatment: Puerto Jimenez primary tourism center.</p> <p>3. Private Investment Promotion (Common to both Region): Inducement of private investment to each tourism center by cooperation of ICT, CINDE, and ALDETUS</p> <p>4. Local Tourism Promotion and Community Development (Common to both Region): ALDETUS (Local Association for Sustainable Tourism) projects in selected tourism center and tourism area, Local tourism promotion, Improvement of tourist amenities in tourism center, Pollution prevention in tourism center, Tourism-based community development.</p> <p>5. Establishment and Utilization of Nature Area:</p> <p>1) South Guanacaste Region: Management of tourists on the Ostional National Wildlife Refuge Establishment and utilization of ICT-Municipality natural area between Samara and Garza.</p> <p>2) Corcovado-Golfito Region: Environmental education and training for boat operators for Terraba-Sierpe wetland, Golfito Dulce and Cano Island.</p> <p>6. Improvement of Local Public Facilities (Common to both Region): Local Public Facility development projects (vocational school, high school, hospitals or clinic, etc)</p>		

沿岸地域観光土地利用計画調査

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

(FY 2001 Domestic Survey)

ICT, the counterpart agency, seriously considered taking actions recommended by the JICA study, immediately after the interim report. However, ICT felt some technical limitation to pursue the recommended actions immediately. Therefore, ICT decided to make another request to the Japanese government and JICA to conduct a project for increasing ICT's preparedness for taking actions recommended by the JICA study. In response to this project request, Professor Nishimura and JICA task manager suggested to ICT that ICT should make another study project request to the Japanese government and JICA.

Although the proposed project is in the scheme of a development study, the project consist of a technical assistant project and a development study, which has been discussed recently among related bodies. The approach utilise the C/P, such as ICT and concerned parties, to take actual steps in implementing the proposed project, while the study team for the project is that ICT and local parties concerned will take a lead to implement the projects proposed through the M/P, while the study team supports the implementation by preparing for the implementation (preparation of detailed action plan).

(FY 2001 Overseas Survey)

Requests for 4 Development Study were submitted to Japanese Embassy in Costa Rica, mid-Atlantic ridge and Punta Arenas and Ministry of National Planning, aimed at promoting sustainable tourism development in shore frontage and islands. Approval by JICA is currently pending.

(FY 2002 Overseas Survey)

The current situation was diagnosed on the basic infrastructure in the target regions of plans. In addition, field activities were waged toward the follow-up based on this plan through the Sustainable Tourism Development Areas Association (ALDETUS). The aforementioned activities at the stage of this plan were implemented by research institutes and funds provided by the funds contributed by member organizations from ALDETUS - an organization established under the support of Costa Rica Environmental Studies.

Condition of request:

(FY 2002 Overseas Survey)

In September 2002, four development studies were requested to the Japanese Embassy in Costa Rica and the Ministry of Planning and Economic Policy for the purpose of promoting sustainable tourism development in coasts and islands of Costa Rica, deep water of the Atlantic Ocean, Punta Arenas Bay. The studies are awaiting approval from JICA at present.

(FY 2003 Overseas Survey)

Based on the result of the studies, the Costa Rica National Tourism Development Plan and a utilization plan of Caribbean land for development were prepared. In addition, based on the technology transfer through the studies, land utilization plan and tourism development plan of the coastal area were implemented. The National sustainable Tourism Development Plan (2002 - 2012) was pushed forward by use of a similar technique.

At present, four studies have been requested to JICA on the coastal region coordination plan and its implementation for the purpose of tourism promotion.

(FY 2004 Domestic Survey)

No information to be specifically mentioned.

(FY 2004 Overseas Survey)

ICT has prepared a D/S on use of lands in northern Caribbean, southern Caribbean, northern fields, Carthage canyon, and middle Pacific Ocean and tourism with its own fund, based on the concept model of this study. It is planning to continue the project with concerned departments in Punta Arenas, northern Guanacaste region, and central canyon.

Although it has submitted subsequent plans to JICA for several times, replies have not been made.

(FY 2005 Domestic Survey) (FY 2005 Overseas Survey)

The follow-up study was implemented for a development plan of the study, which the Committee for the sustainable development was established in Drake, Jimenez port, and Sanata Teresa-Mal Paris. In addition, partnership between the mentioned institution has been maintained to conduct the study.

For the human development, the National Vocational Training Bureau has been increasing technical training opportunities for people in tourism sector. ICT has submitted requests for a technical assistance to JICA for several times.

For the macro-level regional planning has become possible from the experience, knowledge, and techniques acquired in the mentioned study, though experience is still to be gained for subsequent micro-level planning and pilot project implementations.

For the infrastructure development, discussions has been held with the representatives from the related institutions, which an involvement from such institutions are requisite in reflecting individual tourism development plans to comprehensive action plan, as well as a necessity of investments.

Subsequent Study: The detailed land utilisation plan in the coastal zones of Ossa Peninsula, and the detailed land utilisation plan in the coastal zone of Nicoya peninsula.

Funding:

Funding party: Own funds

Implementing body: The Costa Rican Tourist Agency

Implementing period: 2000/Jan - 2001/Jan

Study Area:

Phase I: Northern and southern Caribbean (Caribe Norte, Caribe Sur), northern Llanurace, Pacifico Medio

Phase II: Valle Central, northern Guanacaste, Punt Arenas, costal zones of Nicoya peninsula and islands

Objectives: To prepare and to partially implement a detailed land utilisation, tourism development, environmental preservation, and community development plan based on the macro land utilisation plan in the coastal zone.

1) To prepare land utilisation plan in order to facilitate sustainable development in the coastal area, while preserving the environment.

2) To prepare measures required for sustainable tourism development plan.

3) To implement transfer of technology and knowledge to increase domestic competitiveness.

Contents proposed:

The mentioned study has proposed establishment and capacity development of sustainable development centre, development of information system to assist decision making, land development to facilitate efficient use of natural resources, strengthening of individual project to attract tourists, and to foster implementation of investment plans until the year 2012. 1) Tourism development, 2) natural environment management, 3) economic development in regional society, 4) infrastructure management, 5) land use management.



# STUDY SUMMARY SHEET

(F/S)

CSA CRI/A 303/02

<b>1. COUNTRY</b>	Costa Rica	
<b>2. NAME OF STUDY</b>	The Study on Rural Development Project for The Middle Basin of Tempique River in the Republic of Costa Rica	
<b>3. SECTOR</b>	Agriculture / (Agriculture in) General	
<b>4. TYPE OF STUDY</b>	F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Pacific Consultants International (PCI) Naigai Engineering Co., Ltd.	
<b>7. STUDY PERIOD</b>	Jun.2000 ~ Aug.2002 26month(s) ~	
<b>8. SITE OR AREA</b>	Approximately 35,000 Ha lying astride counties of Liberia, Santa Cruz, and Carillo of Guanakate Province. A part of the area is included in three counties out of 11 counties of Guanakate Province, and the area targeted for the study. On the other hand, in terms of the district level, the following places are included in the study target area: Liberia and Nacascolo districts in Liberia County, Sardinal and Philadelphia districts in Carillo Palmyra County, and Guanakate district in Santa Cruz County.	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
1) Irrigation and drainage 2) prevention of floods 3) environmental preservation 4) production support		

PRESENT STATUS	Completed or In Progress Completed Partially Completed Implementing Processing	Promoting Delayed or Suspended Discontinued or Cancelled
<p><b>Description :</b></p> <p>(FY 2003 overseas Survey) Based on the proposal, a possibility in relation to construction of a weir and a dam in La kyruba and Piedras is under consideration. These were proposed in the study as a long-term plan and are regarded as projects that should be prioritized from the perspective of being priority project of SENARA, present condition of the basin of Tempisque, and the tourism development of the coastal area. Therefore, these plans were reviewed in the extensive regional plan toward the water resources management of the basin of Tempisque and the coastal region. This plan will be pursued based on the agreement between SENARA and Costa Rica Water and Sewerage Bureau.</p> <p>(FY 2004 Domestic Survey) No information to be specifically mentioned.</p> <p>(FY 2004 Overseas Survey) Recommendation for a study to research utilisation of water resource for coastal tourism development was made from SENARA and AyA. Amount of funding and the funding party depends on the project plan and the output of F/S.</p> <p>(FY 2005 Domestic Survey) No information to be specified.</p> <p>(FY 2005 Overseas Survey) Construction of bank to protect urban area is considered by Philadelphia city, Department of construction and transportation, and National Committee of Disaster Prevention and Urgent Measures.</p> <p>Subsequent study: Temisque river midstream basin coastal area water sources increase plan Implementing period: Progress in FY 2005 Implementing body: SENARA and AyA Objective: To determine and analyse an alternative plan to be implemented for next 20 years in order to supply drinking water to residents in coastal area in northern Nicoya peninsula and irrigation water to agricultural area through a feasibility study. Relation with the report: Used the implemented Master Plan.</p>		

# STUDY SUMMARY SHEET

## (M/P)

CSA CUB/S 101/03

<b>1. COUNTRY</b>	Cuba		
<b>2. NAME OF STUDY</b>	Development Study on the Improvement of the Sewerage and Drainage System for the Havana Bay in the Republic of Cuba		
<b>3. SECTOR</b>	Administration / Environmental Problems		
<b>4. TYPE OF STUDY</b>	M/P		
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	GTE	
	<b>PRESENT COUNTERPART AGENCY</b>		
<b>6. CONSULTANT(S)</b>	Nihon Suido Consultants Co., Ltd.		
<b>7. STUDY PERIOD</b>	Jun.2002 ~ Mar.2004 21month(s) ~		
<b>8. SITE OR AREA</b>	Havana Bay area		
<b>9. MAJOR PROPOSED PROJECT(S)</b>			
M/P:			
- Central Sewerage System improvement plan			
- Construction of Sewerage system in Luyano River and Martin Perez River area			
F/S:			
- Central Sewerage System improvement plan			
- Construction of Sewerage system in Luyano River and Martin Perez River area			

八バノ湾汚染源対策調査

<b>PRESENT STATUS</b>	In Progress or In Use  Delayed  Discontinued
-----------------------	--

**Description :**

(FY 2004 Domestic Survey)

No information to be specifically mentioned.

(FY 2005 Domestic Survey)

No information to be specifically mentioned.

# STUDY SUMMARY SHEET

## (M/P+F/S)

CSA CUB/A 201/05

<b>1. COUNTRY</b>	Cuba		
<b>2. NAME OF STUDY</b>	The study on sustainable technical development for rice cultivation in the central area in the Republic of Cuba		
<b>3. SECTOR</b>	Agriculture / (Agriculture in) General		
<b>4. TYPE OF STUDY</b>	M/P+F/S		
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>		
	<b>PRESENT COUNTERPART AGENCY</b>		
<b>6. CONSULTANT(S)</b>	Pacific Consultants International (PCI)		
<b>7. STUDY PERIOD</b>	Oct.2003 ~ Mar.2006 29month(s) ~		
<b>8. SITE OR AREA</b>			
<b>9. MAJOR PROPOSED PROJECT(S)</b>			

キューバ国中央地域における持続的稲作技術開発計画調査 (農村開発部)

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

(FY 2006 Domestic Survey)

Reinforcement of production of free trade rice certified seed and its provision is required, which has been requested to Japan.

# STUDY SUMMARY SHEET

(F/S)

CSA DOM/A 301/81

<b>1. COUNTRY</b>	Dominican Republic		
<b>2. NAME OF STUDY</b>	Proyecto del desarrollo agricola del area Agripo (El Pozo)		
<b>3. SECTOR</b>	Agriculture / (Agriculture in) General		
<b>4. TYPE OF STUDY</b>	F/S		
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Dominican Agrarian Institute National Institute of Hydraulic Resources	
	<b>PRESENT COUNTERPART AGENCY</b>		
<b>6. CONSULTANT(S)</b>	Pacific Consultants International (PCI)		
<b>7. STUDY PERIOD</b>	Jul.1980 ~ Jan.1982 18month(s) ~		
<b>8. SITE OR AREA</b>	El Pozo, Maria Trinidad Sanchez (180 km from capital, 50,000 people, 10,000ha)		
<b>9. MAJOR PROPOSED PROJECT(S)</b>			
Irrigation of 7,500ha: Alternative A:Cost 1) Alternative B:Cost 2)			
<p>1)Principal canals:Concrete lined &amp; earth 11.5km &amp; 31.6km 11.5km &amp; 25.5km :irrg. cum drainage - 16.0km</p> <p>2)Lateral canals(irrg.cum drainage): 119.7km 119.7km</p> <p>3)Pump stations(Yuna River):water intake 400 m3/min 440 m3/min :units/diam 3 units/1,000 diam 3 units/1,000 diam</p> <p>4)Pump sta. retarding basin(for Alt.A):10 locations, 200 m3/min &amp; 400 diam. each</p> <p>5)Intake weir, Nagua River (same for Alts. A &amp; B): height 1.0m, intake 2.5cu.m/sec.</p> <p>6)Intake weir, Helechal Riv. (same for Alts. A &amp; B):height 0.8m, intake 0.5cu.m./sec.</p> <p>7)Tide gates, Nagua Riv.(same for Alts. A &amp; B): 2 gates(3.8mx15.0m), 1 gate (3.8mx10.0m)</p> <p>8)Tide gates, Cano Colorado(same for Alts. A &amp; B):2 gates(2.5mx8.0m), 1 gate(2.5mx5.0m)</p> <p>9)River channel improvement(same for Alts. A &amp; B): Nagua channel change(5km) and widening (1km), Helechal channel widening (2km), etc.</p> <p>10)Drainage canals (same for Alts. A &amp; B): Arterial (cum retarding basin) 33.3km, principal drainagae 85 km</p> <p>11)Roads( same for Alts. A &amp; B: Main road rehab.(18.5km), main road construction(11.1km), branch (119.7km)</p>			

アグリボ(エルボソ)地域農業開発計画

PRESENT STATUS	Completed or In Progress Completed Partially Completed Implementing Processing	Promoting Delayed or Suspended Discontinued or Cancelled
<p><b>Description :</b></p> <p>Subsequent Studies: Jan.-Nov.1984 D/D</p> <p>Finance: May.11.1983 L/A 8,825 mil.Yen (Agricultural Development Project in Agripo Area (El Pozo))* *Contents of project 1)Pump site, gate, water canal, drainage canal, supplementary structure, improvement and new construction of rural road 2)D/D and consulting service for works above 3)Land acquisition (loan for all foreign currency for 1),2) and a part of local currency) Mar.1994 L/A 9,013 mil.Yen</p> <p>Construction: Aug.1985 started Aug.1989 completed</p> <p>Related Project: "Agripo Agricultural Development Project II" The project aims to improve productivity and increase rice production in Aguacate Guallapo, Agripo area.</p> <p>Finance: Mar.1994 L/A 9,013mil.yen</p>		



# STUDY SUMMARY SHEET

(F/S)

CSA DOM/S 301/85

<b>1. COUNTRY</b>	Dominican Republic		
<b>2. NAME OF STUDY</b>	Radio and Television Development Project		
<b>3. SECTOR</b>	Communications & Broadcasting / Broadcasting		
<b>4. TYPE OF STUDY</b>	F/S		
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Radio Television Commission	
	<b>PRESENT COUNTERPART AGENCY</b>		
<b>6. CONSULTANT(S)</b>			
<b>7. STUDY PERIOD</b>	Aug.1984 ~ Jul.1985 11month(s) ~		
<b>8. SITE OR AREA</b>			
<b>9. MAJOR PROPOSED PROJECT(S)</b>			
<p>1)Broadcasting antennas  radio(FM) 1 set  TV(2DP) 1 set</p> <p>2)Transmission equipment  radio(FM) 2 sets  TV 2 sets</p> <p>3)STL(RTVD Santo Domingo - Aldela Bandela)  radio(FM) 2 sets of 960MHz transmitting and receiving equipment  TVAESHF 2 sets of transmitting and receiving equipment</p> <p>4)Local TV relay stations  replacement of receiving equipment at 8 TV relay stations.</p>			

ラジオ・テレビ放送網拡充計画

PRESENT STATUS	Completed or In Progress Completed Partially Completed Implementing Processing	Promoting Delayed or Suspended Discontinued or Cancelled
<p><b>Description :</b></p> <p>Subsequent Studies: Mar.~Apr.1991 B/D</p> <p>Finance: Jun.1991 E/N 527 mil.Yen (Project to Replace Equipment for Radio and Television Educational Programs I) Jul.1992 E/N 740 mil.Yen (Project to Replace Equipment for Radio and Television Educational Programs II)</p> <p>Construction: Jun.1991 started Oct.1993 completed</p> <p>Situation: (FY 1993 Overseas Survey) The Government requested JICA to dispatch an expert related to this project.</p>		

# STUDY SUMMARY SHEET

(F/S)

CSA DOM/A 302/86

<b>1. COUNTRY</b>	Dominican Republic	
<b>2. NAME OF STUDY</b>	Aguacate-Guayabo Agricultural Development Project	
<b>3. SECTOR</b>	Agriculture / (Agriculture in) General	
<b>4. TYPE OF STUDY</b>	F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Dominican Agrarian Institute National Institute of Hydraulic Resources
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Pacific Consultants International (PCI) Naigai Engineering Co., Ltd. Sanyu Consultants Inc.	
<b>7. STUDY PERIOD</b>	Jun.1985 ~ Aug.1986 14month(s) ~	
<b>8. SITE OR AREA</b>	Maria, Trinidad Sanchez, Duarte, Samana, Aguacate, Guayabo (200km from capital, 17,000 people,24,000ha)	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>The purpose of this project is to promote agricultrure of the Aguacate-Guayabo area within the AGLIPO area. This follows development of the El Pozo area where construction, as a first step of the AGLIPO Agricultural Development Plan, has already completed. The following facilities have been formulated in the Project.</p> <ul style="list-style-type: none"> <li>- Headworks : 1</li> <li>- Drainage Canal : 125km</li> <li>- Training wall : 1</li> <li>- Drainage : 135 km</li> <li>- Road : 130 km</li> </ul>		

アグアカテ・グアジャボ地域農業開発計画

PRESENT STATUS	Completed or In Progress Completed Partially Completed Implementing Processing	Promoting Delayed or Suspended Discontinued or Cancelled
<p><b>Description :</b></p> <p>Subsequent Studies: (FY 1997 Domestic Survey) (FY 1997 Overseas Survey) Nov.1995~Sep.1996 D/D (INDRHI, Consulting Company / PCI) OECF 3,400mil.yen Government budget RD\$ 3.86mil. *Contents of study Collection of data, soil survey, etc.</p> <p>Water supply for the adjacent area of 3,000ha at EL Pozo Project area.</p> <p>Finance: Mar.31.1994 L/A 9,013 mil.Yen(Constanza Valley Irrigation ProjectII) *Content of project: D/D, Construction of irrigation and drainage facilities and construction of roads. (All the projects proposed by F/S are included) Government budget RD\$ 4,200mil.</p> <p>Construction: (FY 1998 Domestic Survey) May 1999~May 2003 Scheduled to be implemented Oct.1998 4 contractors (Japan, Spain, Italy, Mexico) were selected.</p> <p>(FY 1995 Overseas Survey) The reason that the provision of this Yen credit was delayed was because the Dominican government had delayed in the payment of the OECF loan interest. However following the consultation with IMF and the request from the Paris Club the Japanese government decided to resume the provision of Yen Credit.</p> <p>(FY 1998 Domestic Survey) Term of L/A is up to 2003. If construction does not progress smoothly, the extension of the term will be required.</p>		

# STUDY SUMMARY SHEET

## (M/P+F/S)

CSA DOM/S 201B/87

<b>1. COUNTRY</b>	Dominican Republic		
<b>2. NAME OF STUDY</b>	Development Project of the San Pedro de Macoris		
<b>3. SECTOR</b>	Transportation / Port		
<b>4. TYPE OF STUDY</b>	M/P+F/S		
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Ministry of Public Works and Communications	
	<b>PRESENT COUNTERPART AGENCY</b>		
<b>6. CONSULTANT(S)</b>	The Overseas Coastal Area Development Institute (OCDI) TETRA Co., Ltd.		
<b>7. STUDY PERIOD</b>	Sep.1986 ~ Nov.1987 14month(s) ~		
<b>8. SITE OR AREA</b>			
<b>9. MAJOR PROPOSED PROJECT(S)</b>			
<p>&lt;M/P&gt;</p> <p>The study formulated a master plan (until 2005) To handle 1.3 million tons, estimated in 2005, 7 wharves will be constructed.</p> <p>1) Wharves depth -5m length 100m                   -7.5m           260m                   -11.0m          840m</p> <p>2) Container Terminal   3) Ferry Terminal 4) Port Management Office   5) Maintenance Shop</p> <p>&lt;F/S&gt;</p> <p>To handle 1 million tons, estimated in 1995, 6 berths are located on the esastern side. Introduction of new cargo handling system and establishment of port managing body are proposed.</p> <p>Short Term Plan (until 1995)</p> <p>1) Wharves depth -5m length 100m                   -7.5m           260m                   -11m           630m</p> <p>2) Container Terminal   3) Ferry Terminal 4) Port Management Office   5) Maintenance Shop</p>			

サンペドロデマコリス港開発計画

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

## Reasons for Cancellation:

The Government of the Dominican Republic could not reach an agreement with the IMF, and therefore has been unable to receive foreign finance.

## Situation:

May.1991 The Government resumed negotiation with the IMF

Nov.1991 At the Paris club, it was settled with the total sum of US\$1.8 billion. This project is included in the list of projects which the office of national economic planning consides to implement with OECF fund.

## (FY 1991 Overseas Survey)

The Government of the Dominican Republic requested review of this study and the technical advise about the port development policy.

## (FY1992 Overseas Survey)

The Dominican Government has not yet used the M/P. The Government is not looking for financial sources to support this project.

## (FY1993 Overseas Survey)

Dominican Government think this project impossible. The National Budget of 1994 did not include the project.

## (FY 1995 Overseas Survey)

It seems difficult to resume this project.

# STUDY SUMMARY SHEET

(F/S)

CSA DOM/A 303/90

<b>1. COUNTRY</b>	Dominican Republic	
<b>2. NAME OF STUDY</b>	Constanza Valley Irrigation Project	
<b>3. SECTOR</b>	Agriculture / (Agriculture in) General	
<b>4. TYPE OF STUDY</b>	F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	National hydraulic resources institute
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Pacific Consultants International (PCI)	
<b>7. STUDY PERIOD</b>	Jul.1989 ~ Mar.1990 8month(s) ~	
<b>8. SITE OR AREA</b>	Constanza Valley area situated about 140km north-west of the capital	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>The project aim at improving present irrigation condition for the Constanza Valley the improvement of the present irrigation scheme. Main facilities of the Project are as follows.</p> <p>1) Dam - central core type rockfill dam            Height of dam: 30m, Length of crest: 162m,            Dam volume: 214,000 cub.m,            Total storage capacity: 1,050,000 cub.m</p> <p>2) Head works and head race            Construction of Mountain stream diversion works and Head race.            Discharge: 1.0 cub.m/S</p> <p>3) Canal            New construction and rehabilitation: 67.35km            Related facilities: Diversion works/Confluence works,            Chute, Small intake gate, Farm pond, Siphon, Aqueduct</p>		

コンスタンサ地域畑地灌漑計画

<b>PRESENT STATUS</b>	Completed or In Progress  Completed Partially Completed Implementing Processing	Promoting  Delayed or Suspended  Discontinued or Cancelled
<p><b>Description :</b></p> <p>Subsequent Studies: Jul.~Aug.1993 B/D</p> <p>Finance: 24 Jan.1994 E/N 546 mil.Yen (Constanza Valley Irrigation Project-1/2) 3 Aug.1994 E/N 32 mil.Yen (Constanza Valley Irrigation Project-2/2-1) E/N 946 mil.Yen (Constanza Valley Irrigation Project-2/2)(provided in 1995)</p> <p>Dominican side budgeted US\$ 158 thousand for the project, but it seems that the budget will not be used.</p> <p>Construction: Mar.1995 completed</p> <p>Effect: (FY 1998 Overseas Survey) The followings have been realized through the implementation of the proposed project. - Stable annual agricultural production has been achieved. If the average planted area in 1988 is regarded as 100%, that in 1998 is 210%. - Irrigated area has been expanded from 500 ha to 2,502ha.</p>		



# STUDY SUMMARY SHEET

## (Basic Study)

CSA DOM/S 501/92

<b>1. COUNTRY</b>	Dominican Republic	
<b>2. NAME OF STUDY</b>	Groundwater Development Project in The Western Region	
<b>3. SECTOR</b>	Social Infrastructure / Water Resources Development	
<b>4. TYPE OF STUDY</b>	Basic Study	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Instituto Nacional de Aguas Potables y Alcantarillados (INAPA)
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Kokusai Kogyo Co., Ltd. Sumiko Consultants Co., Ltd.	
<b>7. STUDY PERIOD</b>	Oct.1990 ~ Sep.1992 23month(s) ~	
<b>8. SITE OR AREA</b>	Four Provinces - MONTE CRISTI - ELIAS PINA - DAJABON - INDEPENDENCIA	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>Proposed rural villages are selected from 158 villages which were requested by Government of Dominican Republic. The Facilities required in this project are as follows:</p> <p>a. Hand Pump System            40 villages (131 wells)</p> <p>b. Motor Pump System           7 villages (4 wells)</p> <p>c. Reservoir Pond, Purification Booster Pump System        2 places (7 villages)</p> <p>d. Water Conveyance System    2 sets (4 villages)</p>		

<b>PRESENT STATUS</b>	In Progress or In Use
	Delayed
	Discontinued

**Description :**

(FY 1997 Overseas Survey)

The results of this study were incorporated into "Rural-Urban Water Supply and Sanitation National Plan (1995~2000)". Moreover, INAPA is utilizing the outputs of the study.

Subsequent Studies:

B/D (Implementing organ / INAPA, Consulting Company / Kokusai Kougyou)

The following projects were formulated:

- |  |                         |
|--|-------------------------|
| 1) Hand Pump system                              | 37 villages (93 wells)  |
| 2) Motor Pump System                             | 7 villages ( 7 wells)   |
| 3) Reservoir, Water Distribution Facilities      | 7 villages ( 2 systems) |
| 4) Cooperative Water Reservoir Facilities        | 4 villages (11 sets)    |
| 5) Facilities for Maintenance and Administration | 1 set                   |
| 6) Equipment for Maintenance and administration  | 1 set                   |

(1)Dahabon Province

Subsequent Studies:

Jun.13-Jul.17, 1994 B/D

Finance:

Feb.1995 E/N 391 mil.Yen (Project for Water Supply in Three Western Departments )

Sep.1995 E/N 121 mil.Yen (Project for Water Supply in Three Western Departments 1/2)

Sep.1995 E/N 983 mil.Yen (Project for Water Supply in Three Western Departments 2/2)

\*Contents of the project

Hand pump, motor pump, purification plant, reservoir, etc.

Construction:

Jul.1995-Mar.1996 Implemented

Contractor / Fujita

(2)Monte Christy and Elias Pina

Finance:

5 Sep.1995 E/N 121 mil.Yen (Project for Water Supply in Three Western Departments 1/2)

5 Sep.1995 E/N 983mil.yen (Project for Water Supply in Three Western Departments 2/2) (provided in 1996)

\*Contents of the project

Hand pump, motor pump, purification plant, reservoir, etc.

Construction:

Feb.1996 started

Mar.1997 completed

Contractor / Fujita

Effect:

(FY 1997 Domestic Survey)

Standard of living of rural area (approx. 5,300 households, 25,000 persons) has improved greatly by stable pure water supply. As a result, decrease of epidemic infected by water and respiratory disease, and prevention of depopulation are expected. Moreover participation of female in economic activity and increase of school attendance rate are expected because the hard work of women and children to carry water will be mitigated.

# STUDY SUMMARY SHEET

(F/S)

CSA DOM/A 304/95

<b>1. COUNTRY</b>	Dominican Republic	
<b>2. NAME OF STUDY</b>	Limon del Yuna Area Agricultural Development	
<b>3. SECTOR</b>	Agriculture / (Agriculture in) General	
<b>4. TYPE OF STUDY</b>	F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	INDRHI
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Pacific Consultants International (PCI) Kokusai Kogyo Co., Ltd.	
<b>7. STUDY PERIOD</b>	Mar.1994 ~ Aug.1995 17month(s) ~	
<b>8. SITE OR AREA</b>	Limon del Yuna area, right bank of Yuna lower stream	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<ol style="list-style-type: none"> <li>1. Facility for Source of Water: water-intake facility, pond, pump, etc.</li> <li>2. Irrigation Facility: trunk and branch canal, turnouts, etc.</li> <li>3. Drainage Facility: trunk and branch drainage canal, accompanying work, etc.</li> <li>4. Flood Protection: river rehabilitation</li> <li>5. Road Facility: trunk and branch road, bridge</li> <li>6. O/M office</li> </ol>		

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

(FY 1996 Domestic Survey)

As of Sep.1996 D/D on Agripo (II) is being undertaken and the construction is expected to commence around Sep.1997.

After the implementation of Agripo (II), this project, Agripo (III) is intended to be materialized, the Govt. of Dominica Republic seems to request in the near future.

(FY 1997 Domestic Survey)

No action has been taken to request D/D study.

Request will be submitted after the completion of a tender for Agripo (II) which is in process.

(FY 1997 Overseas Survey)

INDRHI (National Institute of Hydraulic Resources) is not preparing for procurement of fund yet.

INDRHI has intention to request for financial assistance for D/D and implementation of the project, after the completion of a tender for construction of Agripo (II).

(FY 1998 Domestic Survey) (FY 1998 Overseas Survey) (FY 1999 Overseas Survey)

Contractors for Agripo (II) were under selection as of Nov. 1998. It seems that the construction will be started around March or April of 1999. If it is implemented smoothly, Agripo (III) will be realized. Followings were requested regarding Agripo (III):

(FY 2000 Domestic Survey)

The construction of Agripo(II) projects has been implementing.

Subsequent study: Request for D/D was submitted in 1997. It is to be implemented by INDRHI.

Finance: Request for OECF loan (approx. 4,000 mil. yen) for construction and rehabilitation of the irrigation facilities was made in 1997.

\*Refer to "Agripo (El Pozo) Agricultural Development (DOM/A 301/81)" for detail.

(FY 2005 Domestic survey) (FY 2005 Overseas survey)

Construction of the Agripo (II) was completed in March 2004. Dominican Republic has an intention to continue the project as Agripo (III). However, coordination is required with the request submitted for other projects. In addition, there is a trend to revise the whole concept due to frequent occurrence of floods. INDRHI has shown their intention to implement Agripo (III) and Dominican government is planning to bear the costs for administrative procedures, EIA, road maintenance, tax, and etc.

# STUDY SUMMARY SHEET

## (M/P+F/S)

CSA DOM/A 227/99

<b>1. COUNTRY</b>	Dominican Republic	
<b>2. NAME OF STUDY</b>	Integrated Rural Development Project of Yaque Del Sur River Basin	
<b>3. SECTOR</b>	Agriculture / (Agriculture in) General	
<b>4. TYPE OF STUDY</b>	M/P+F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	National Institute of Hydraulic Resources(INDRHI)
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Nippon Koei Co., Ltd. Pasco International Inc.	
<b>7. STUDY PERIOD</b>	Oct.1997 ~ Aug.1999 22month(s) ~	
<b>8. SITE OR AREA</b>	M/P: Yaque Del Sur River Basin F/S: Lower Yaque Del Sur River Basin	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>M/P:</p> <p>To stabilize farmer's economic situation, to improve farmers' life quality, to create job opportunity and to improve the social welfare, the projects in 7 sectors were formulated based on 6 basic concepts as follows,</p> <ol style="list-style-type: none"> <li>1) soil conservation</li> <li>2) increase of agri-production</li> <li>3) increase of cropping intensity</li> <li>4) strengthening agri-support system</li> <li>5) improvement of social infrastructure</li> <li>6) environmental conservation in Ricon Lake</li> </ol> <p>The proposed projects consists of 1 agriculture, 6 agri-support, 1 overall water management, 9 irrigation/drainage, 4 social rural infrastructure, 4 water resources and 2 environment development projects.</p> <p>F/S:</p> <p>The agricultural development in the lower Yaque Del Sur River has about 6,000 ha extending over the existing irrigation system. The development projects consists of 5 project components such as,</p> <ol style="list-style-type: none"> <li>1) improvement of irrigation facilities</li> <li>2) establishment of the water user's organizations</li> <li>3) establishment the Yaque Del Sur Water Management Center</li> <li>4) constructions of rural water supply system and community center</li> <li>5) reinforcement of agricultural support services relevant to a research program of adaptive and applied on-farm research, education and trinity for extension workers and leaders of nucleus farmers, preparation of cadastral ledges and services for land registers, establishment of the model agricultural cooperation and market information system.</li> </ol>		

ジャケデルスール川流域農業開発計画調査

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

At present INDRHI has been requesting that the Japanese government should implement the following project components among the agricultural development projects in the lower Yaque Del Sur river as Japanese grant aid projects.

- 1) Improvement of irrigation facilities of Viellarpan headworks
- 2) Improvement of Santana headworks
- 3) Improvement and rehabilitation of irrigation and drainage facilities in the existing Tawayo irrigation system
- 4) Installation of telemeter system

(FY 2002 Domestic Survey)(FY 2002 Overseas Survey)

The government submitted the request for grant aid but there has been no progress. Moreover, it is allegedly known that the government approached to JBIC for loan aid. Therefore, the government launched procedures for loans from the Export-Import Bank of the United States however, there has no progress.

(FY 2003 Overseas Survey)

The proposed project is regarded as an extremely high priority plan among the nation's agricultural development plans due to the deteriorated poverty of the target region. The Dominican government filed a request for grant aid with the objective of obtaining financing for this plan in 2002 but it has not progressed yet.

(FY 2004 Domestic Survey)

No information to be specifically mentioned.

(FY 2005 Domestic Survey)

The counterpart government desires the actualisation of the project.

(FY 2005 Overseas Survey)

Subsequent study: Phase-I

Implementation period: 2 years

Objective:

- Design and construction of Yaque Del Sur River water resources management centre, establishment of urgent warning system, and technical training
- Design and construction of Santana diversion bank improvement and Yaque Del Sur River (Tawayo irrigation facilities) irrigation infrastructure improvement.
- To strengthen the function of water users association in the Tawayo irrigation area
- To prepare ownership registration maps of Tawayo irrigation area and to provide necessary services in order to provide land rights for peasants using the irrigation.
- To strengthen information system on land partition in the target area
- To prepare irrigation infrastructure improvement project in target area.

Relation with the report: The study has proposed several projects for comprehensive development of Yaque Del Sur River basin area. Comprehensive development project is a large-scale project, which takes two years for Phase-I and three years for Phase-II five totalling five years.

Situation: Rural development project is part of the national policy, which INDRHI has an intention of implementing the project soon. However, presently, there have been no requests. While financing method is planned to be discussed during the planning phase of the subsequent study, Dominican government has an intention to finance EIA, road maintenance, and costs for administration, logistics and technical support in preparing land registration map and determining land rights regarding the project. However, although INDRFI has an intention to conduct comprehensive development of the Yaque Del Sur River basin, loan limits of IMF and policies of CAFTA, joined by United States, Dominican Republic, and Latin American countries will affect the implementation of the project.

# STUDY SUMMARY SHEET

## (M/P+F/S)

CSA DOM/S 222/01

<b>1. COUNTRY</b>	Dominican Republic	
<b>2. NAME OF STUDY</b>	Improvement of Sewage System and Environment in the City of Santiago	
<b>3. SECTOR</b>	Public Utilities / Sewerage	
<b>4. TYPE OF STUDY</b>	M/P+F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Corporacion del Acueducto y Alcantarillado de Santiago (CORAASAN)
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Nihon Suido Consultants Co., Ltd. Nippon Koei Co., Ltd.	
<b>7. STUDY PERIOD</b>	Dec.2000 ~ Feb.2002 14month(s) ~	
<b>8. SITE OR AREA</b>	M/P: Santiago, Tamboril, Licey F/S: Santiago	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>M/P: The master plan proposes that the sewerage improvement program be implemented under the following three consecutive stages: (1)The first stage (2003-2006); rehabilitation works of the existing Rafey, Cienfuegos and Los Salados wastewater treatment plants; construction of Zona Sur wastewater treatment plant; and construction of main sewers and rehabilitation of existing pumping station (2) The second stage (2007-2010); rehabilitation and construction of collector/interceptor mains; expansion of Rafey wastewater treatment plant; and rehabilitation of Tamboril wastewater treatment plant, and (3) The third stages (2011-2015); construction/ rehabilitation of sewers, rehabilitation of Embrujo wastewater treatment plant, and expansion of Zona Sur wastewater treatment plant.</p> <p>F/S: Under the Feasibility Study, the preliminary engineering design of the sewerage facilities selected in the master plan are carried out, taking account the results of field inspections and surveys. The first stage project, from 2003 to 2006, comprises the rehabilitation of Rafey, Cienfuegos and Los Salados WWTPs, the construction of Zona Sur WWTP, and the construction of main sewers of 14.6 km long. To implement the project effectively and smoothly, the strengthening of CORAASAN's organization (improvement of the organization, training for operation and maintenance staff) is proposed. The proposal includes the procurement of sewer cleaning equipment, and a new organization to control industrial wastewater discharge to the public sewers.</p>		

サンティアゴ市下水システム改善計画

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

(FY 2002 Domestic Survey)

The Government of Dominica Republic has examined the application for JBIC loan.

(FY 2002 Overseas Survey)

Policy for institutional capacity building was introduced. Based on the proposal of the Study, request for financial Yen Loan was submitted.

(FY 2003 Domestic Survey)

The implementation agency has been positively preparing for this project and applied for the JBIC loan. JBIC appears to be waiting for the final confirmation of Presidency of the Dominican Republic on the loan.

Progress of the funding request:

(FY 2003 Overseas Survey)

Requested party: Northern European countries

Content:

Phase I - Improvement and expansion of PTAR Rafey, improvement of PTAR Cienfuegos, improvement of PTAR Tamboril, and supply of pipe equipment for sewage system.

Phase II - Construction of southern PTAR, improvement of PTAR Los Salados, and construction of sewage system

Amount: 52,235 USD

Status

(FY 2003 Overseas Survey)

Within the master plan of Sewage sanitation, recommendation towards Environment and Water Supply department was submitted, which was implemented from January 2003. Environmental impact assessment for the plan will be implemented.

(FY 2004 Domestic Survey)

From the implemented body of water and sewer corporation in Santiago, applied to the central government to request the yen loan for the project implementation

(FY 2005 Domestic Survey)

The Dominican government will be requesting for a Yen loan o JBIC. Currently, under consideration within JBIC.



# STUDY SUMMARY SHEET

## (M/P)

CSA DOM/A 108/02

<b>1. COUNTRY</b>	Dominican Republic	
<b>2. NAME OF STUDY</b>	The Master Plan Study on Watershed Management in the Upper Area of the Sabana Yegua Dam	
<b>3. SECTOR</b>	Forestry / Forestry & Forest Conservation	
<b>4. TYPE OF STUDY</b>	M/P	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Secretariat of State for Environment and Natural Resources The Dominican Republic
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Japan Forest Technical Association Taiyo Consultants Co., Ltd.	
<b>7. STUDY PERIOD</b>	Nov.2000 ~ Aug.2002 21month(s) ~	
<b>8. SITE OR AREA</b>	The study area locates in upper part of Yaque del Sur River, and covers some 166,000 ha	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>1) Forest management (Natural Forest Management: 40,000ha, Reforestation: 20,000 ha, Village Nursery: 153 villages, Forest Road: 630km)</p> <p>2) Agroforestry/ Farming Practice (agroforestry: 129 villages, Improvement of Farming Practice: 129 villages, Silvo-Pasture: 25 villages)</p> <p>3) Soil Conservation (Small Scale Gully Erosion Control: 30 sites, Small Scale Landslide Prevention and Control: 561 sites)</p> <p>4) Forest Fire Control (Formation of Voluntary Fire Corps: 158 villages, Improvement of Fire Extinguishing Techniques: 15 times)</p> <p>5) Community Development (Livelihood Improvement: 159 villages, Social Infrastructure irrigation facility: 387 km)</p> <p>6) Strengthening of Community Organization (workshops: 153 villages, Monitoring / Evaluation: 153 villages)</p> <p>7) Extension and Training (Training: 153 villages, AV Equipment: one set, Vehicles: one set)</p> <p>8) Project Support (Project Personnel: 8, Extension Workers: 9, NGO: 9)</p>		

サバナイエグアダム上流域流域管理計画調査

<b>PRESENT STATUS</b>	<p>In Progress or In Use</p> <p>Delayed</p> <p>Discontinued</p>
<p><b>Description :</b></p> <p>(FY 2003 Domestic Survey)  After finishing the Study, a community project with agroforestry activities supported by JOCV volunteer was conducted to follow up the study results in the northern part of Study Area. We have not yet received the feature information.  According to some internet homepages published in Dominican Republic, Secretariat of State for Environment and Natural Resources The Dominican Republic and Fundacion Sur Futuro Inc. have made an agreement on implementation of this project.</p> <p>(FY 2003 Overseas Survey)  1) A village project based on agroforestry was implemented in the northern part of the region targeted for the study as a follow-up of this study.  2) An office was established for forest management and operation.  3) A plantation with cultivation capacity of 4 million seedlings per year was established.  4) An activity to strengthen community-based organizations was commenced.</p> <p>(FY 2004 Domestic Survey)  No information to be specifically mentioned.</p> <p>(FY 2005 Domestic Survey)  Subsequent study: Sustainable management programme of upper Savanna Yebuadam basin  Implementing period: 2006/Jan  Implementing body: Ministry of Environment and Fundacion Sur Futuro Inc.  Objective: To develop capacity of C/P organisations' staff regarding basin management by introducing simple irrigation agroforestry and activities of forestry fire prevention in 14 villages of the Kwavas and the El Grande river basin</p>	

# STUDY SUMMARY SHEET

## (M/P+F/S)

CSA DOM/S 101/03

<b>1. COUNTRY</b>		Dominican Republic
<b>2. NAME OF STUDY</b>		The Study on the Integrated Rural Development of Former Sugercane Plantation Area and the Pilot Project of La Luisa, Monte Plata Province in the Dominican Republic
<b>3. SECTOR</b>		Social Infrastructure / Urban Planning & Land Development
<b>4. TYPE OF STUDY</b>		M/P+F/S
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Farmland Agency
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>		Sanyu Consultants Inc. Yachiyo Engineering Co., Ltd.
<b>7. STUDY PERIOD</b>		Feb.2001 ~ Jul.2003 29month(s) ~
<b>8. SITE OR AREA</b>		Settlements for the beneficiaries of agricultural land reform by the Farmland Agency in 56 districts across the country
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>1. Immigrant's income increase project</p> <p>1) Development of agricultural product functions (development of existing irrigation facilities, expansion and construction of irrigation facilities, development of agricultural roads)</p> <p>2) Development of farmlands(leveling out fields, development of field drainage, farmland protection)</p> <p>3) Development of farm products(enhancement of technical support organizations of production-related department at the Farmland Agency, technical support service for immigrants, introduction of crops and varieties suitable for land conditions, improvement of irrigation water use technology)</p> <p>4) Improvement of livestock production (enhancement of technical support organizations of production-related department at the Farmland Agency, rangeland improvement, facilities development, mechanical service, financial support, introduction of improved variety of livestock)</p> <p>5) Improvement of distribution and processing of agricultural products (enhancement of technical support organizations of production-related department at the Farmland Agency, provision of information and seminars on distribution of agricultural products, seminars on cooperative shipping and processing of agricultural products, financial support) and employment and promotion of small enterprises (vocational training and establishment of small enterprises)</p> <p>2. Life circumstance development project</p> <p>1) To secure safe drinking and daily life water(establishment of water supply organizations and promotion of participation, improvement of digging wells, development of deep wells and water supply for each household through water lines)</p> <p>2) Development of health and sanitary environment (enhancement of local clinic, care visit consultation, enhancement of basic medicaments supply, introduction and enhancement of health activities, introduction and enhancement of school health program, improvement of water use, promotion of latrine, promotion of flushing toilet, improvement of waste collection and disposal system), improvement of educational environment (enhancement of elementary schools, enhancement of equipment for elementary education, promotion of interactions among teachers, enhancement of Parent-Teacher-Associations (PTAs), support for accessing to secondary education, development and enhancement of secondary education, improvement of adult education)</p> <p>3) Development of transport system (development of community roads, access roads, and arterial highways, strengthening road safety, development of road safety facilities, enhancement of public transportation systems)</p> <p>4) Development of communication system and electrification (expansion of electricity network to be connected to each household, promotion of solar energy system for households, promotion of public telephones in each community, expansion of telephone network, expansion of mobile phone services, expansion of broadcasting related to rural areas, promotion of the Internet)</p> <p>5. Cultural and community activities (development and improvement of sports facilities, community centers and parks, development of libraries)</p> <p>6. Improvement of living environment (improvement of housing, community mutual aid system and technical training for carpenters)</p>		

公営農場跡地再開開発計画調査

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

(FY 2004 Domestic Survey)

At the submission meeting of the draft final report in August, 2003, JICA Dominican Republic office showed an intention in supporting the Farmland Agency in planning, implementing, and M&E for the implementation of a regional plan prepared in the development study. A basic design study of a grant-aided water supply project targeting at beneficiary areas of the land reform conducted by the Farmland Agency has started in 2003. This project was intending to cover a part of the M/P. In addition, although it is unconfirmed information, the lawsuit filed by the Japanese immigrants to Dominican Republic against the Japanese government seems to be reconciled.

(FY 2005 Domestic Survey)

Subsequent study: Water supply B/D

Implementing period: 2003

Implementing body: JICA

Relation with the study:

Rural water supply project, consists part of the sub-project of "securing safe drinking water".

Status:

In March 2005, selection of local consultant is planned for an investigation of the necessity of technical cooperation based on the evaluation study planned to be conducted by local JICA office. As for renovation of former public plantation area which includes plenty of lands on the margin of cultivation, in addition to living environment improvement component such as improvement of water supply, M/P for small scale comprehensive agricultural rural development and the concrete methods to implement the plan are proposed.

At the time of development study, the targeted former public plantation area for the renovation was about 64,000 ha, including 60,000 ha in total which could be allocated for landless farmers although it was not registered officially at that time.

The most part of the land is considered to be the former sugarcane plantation area. It is regarded to be important that under the initiative of the government of Dominican Republic, the local offices of the Farmland Agency play a major role to formulate a study plan on the renovation of the former public plantation areas and implement the survey, monitoring and evaluation on their own, in cooperation with the local offices of the Ministry of Agriculture and Ministry of Water. If necessary, they should also involve local governments and NGOs and establish a coordination framework for such activities.

(FY 2005 Overseas Survey)

As for the income increase project proposed by the study, it was decided to be a priority project of the Farmland Agency in fiscal 2005. (Decision No.006)

The comprehensive groundwater development plan to expand the living environment improvement project proposed by the study is under consideration for implementation. Until 2009, 200 wells are planned to be constructed. The expected effects are; to increase beneficiaries of drinking water supply by 30,000, improve drilling technology of IAD staff, improve water supply system at a national level, enhance the function of drinking water users associations and establish new associations, and decrease the number of patients contracted diseases by using contaminated water.

In addition, the follow-up survey of this study was conducted by the JICA Dominican Republic Office through local consultants from February to March in 2005. The purpose of the survey was to investigate the possibility of continuous implementation and development of the pilot project carried out under the study.

# STUDY SUMMARY SHEET

(F/S)

CSA ECU/A 301/82

<b>1. COUNTRY</b>	Ecuador			
<b>2. NAME OF STUDY</b>	Proyecto Catarama de Desarrollo Agricola			
<b>3. SECTOR</b>	Agriculture / (Agriculture in) General			
<b>4. TYPE OF STUDY</b>	F/S			
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Ministry of Agriculture and Livestock Guayas River Basin Development Study Committee (CEDEGE)		
	<b>PRESENT COUNTERPART AGENCY</b>			
<b>6. CONSULTANT(S)</b>	Nippon Koei Co., Ltd. Kyowa Engineering Consultants Co., Ltd.			
<b>7. STUDY PERIOD</b>	Sep.1981 ~ Jul.1982 10month(s) ~			
<b>8. SITE OR AREA</b>	Catarama of Los. Rios Province (19,860ha, Population 7,880 persons)			
<b>9. MAJOR PROPOSED PROJECT(S)</b>				
Major facilities	Sibimbe	Catarama	Las Piedras	Northwest
1)Net irrigation area:	3,470ha	2,330ha	290ha	1,950ha
2)Diversion weir:	Height3.5m,length50m	-	Height3.0m,length35m	-
3)Pumping station:	-	66m <sup>3</sup> /min.x3pumps	-	-
4)Main irrg.canal:	17.94km	2.98km	-	-
5)Secondary irrg.canals:	27.02km	23.74km	5.7km	-
6)Main drainage canals:	16.6km	-	-	-
7)Secondary drain.canals:	33.7km	24.6km	-	47.3km
8)Project cost(US\$1,000):	23,600	11,700	1,000	7,600

コスタ地区カタラマ川流域農業開発計画

<b>PRESENT STATUS</b>	<p>Completed or In Progress</p> <p>Completed</p> <p>Partially Completed</p> <p>Implementing</p> <p>Processing</p>	<p>Promoting</p> <p>Delayed or Suspended</p> <p>Discontinued or Cancelled</p>
<p><b>Description :</b></p> <p>1. Sibimbe, Catarama Areas</p> <p>Subsequent Studies:  Sep.1990~Aug.1991 D/D for 3,860ha in Sibimbe and 2,590ha in Catarama</p> <p>Finance:  Feb.12,1988 L/A 8,594 mil.Yen (including 1,030 mil.Yen for the consulting service) for the implementation of Sibimbe Plan (irrigation of 3,860ha at the left bank of Catarama River) and Catarama Plan (irrigation of 2,590ha at the right bank of Catarama River)</p> <p>Due to the various reasons, the project was temporarily suspended.</p> <p>After the resumption:  Aug.1994 Tender was called. Andrade group was recommended to OECF by the committee and a bidding price was US\$ 3.77 mil.  Sep.1995 The contract is scheduled to be concluded. The local firm, Hidalgo &amp; Hidalgo, was appointed as a contractor.  (Andrade was claiming against this decision, however, it is expected to be settled without any difficulty.)</p> <p>Construction:  April 1999 Completed (scheduled).  Since only 20 % of the construction works had been completed by Oct. 1998, the Government of Ecuador is now discussing that the period of the construction works should be extended up to Aug. 2000. Therefore, they have the intention of requesting the extension of the OECF loan term.</p> <p>Construction Trader / Hidalgo &amp; Hidalgo S.A.</p> <p>Amount to be pledged:C/57,300 mil.(approximately 2,600 mil.Yen) &amp; V.S.\$21M</p> <p>2. Las Piedras, Northwest Areas  (FY 1998 Domestic Survey)  Projects is to be implemented by their own funds.</p>		

# STUDY SUMMARY SHEET

## (M/P+F/S)

CSA ECU/S 201B/86

<b>1. COUNTRY</b>	Ecuador	
<b>2. NAME OF STUDY</b>	Guayaquil City Urban Transportation Plan	
<b>3. SECTOR</b>	Transportation / Urban Transportation	
<b>4. TYPE OF STUDY</b>	M/P+F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Traffic Commission of the Province of Guayas
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Tonichi Engineering Consultants, Inc. Central Consultant, Inc.	
<b>7. STUDY PERIOD</b>	Mar.1982 ~ Aug.1983 17month(s) Oct.1985 ~ Dec.1986 14month(s)	
<b>8. SITE OR AREA</b>	Guayaquil urban area /Total study area 41,200 ha, F/S Study area 13,200 ha /population 1.52 Million ('85).	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>&lt;M/P&gt;</p> <p>1) Road Network Plan - Extension of proposed Road Network 71.8km long. - Improvement of Intersections at 17 locations.</p> <p>2) Extension of MRT Plan - Construction of a railway urban transportation system. - Extension of 51km, and 51 stations.</p> <p>Total cost above pertains to the elevated railroad project (15 km) (1982 prices)</p> <p>&lt;F/S&gt; An elevated urban railroad project, starting from the big bus. terminal in the northern part of the city, through the central area, and till the southern residential area where is highly populated.</p> <p>Route length 15km No. of stations 12 No. of demand 401,000/day The total cost pertains 1) to the Phase I of the elevated railroad project (9.1 km), and 2) to the total railroad project (15 km) (1985 prices).</p>		

グアヤキル市都市交通計画調査

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed Partially Completed Implementing Processing	Delayed or Suspended  Discontinued or Cancelled
<b>Description :</b>		
<p>&lt;M/P&gt;</p> <p>1.Long-term Plan 1)The elevated railway (15km) through the city from north to south. May 1985 S/W of F/S concluded Oct.1985 15 members of Study Team was dispatched The project was designated as an important project of the Five-year National Plan (1986-1990). 2)The ring road in the city and improvement of the related roads.</p> <p>2.Short-term Improvement Plan 1)Improvement of Intersections at 8 locations. A part of them has been improved financed by World Bank.</p> <p>&lt;F/S&gt;</p> <p>1.The Elevated Railway Project The project was adopted as one of the national projects in the five-year development plan (1986-1990).</p> <p>2.Irrigation and Power Transmission Project The application was made before the completion of this feasibility study, the OECF appraisal was put off till next year.</p> <p>Reasons of Stoppage: Owing to the decline in price of crude oil and primary commodities, the economic conditions seriously deteriorated in 1987, making it difficult to secure funds for local currency component of the project. At the same time, the newly elected President initiated the review of the country's economic policy.</p> <p>Situation: (FY 1994 Overseas Survey) No survey work was carried out since the follow-up survey on this project completed in March 1993.</p>		



# STUDY SUMMARY SHEET

## (Basic Study)

CSA ECU/A 501/88

<b>1. COUNTRY</b>	Ecuador	
<b>2. NAME OF STUDY</b>	Survey for Forest Inventory in the Northeastern Region	
<b>3. SECTOR</b>	Forestry / Forestry & Forest Conservation	
<b>4. TYPE OF STUDY</b>	Basic Study	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	The Ministry of Agriculture and Livestock
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Japan Forest Technical Association Kokusai Kogyo Co., Ltd.	
<b>7. STUDY PERIOD</b>	Jun.1985 ~ Dec.1988 42month(s) ~	
<b>8. SITE OR AREA</b>	An area of 10,000 sq.km Napo Province of Northeastern region	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>Guideline of forest management and development plan was prepared and following proposals were prepared based on this guideline.</p> <ol style="list-style-type: none"> <li>1. Arrangement of forest and forestry policy</li> <li>2. Arrangement of basic related information to forest operations</li> <li>3. Promotion of re-afforestation and agro-forestry</li> <li>4. Promotion of study, development and diffusion of re-afforestation technology.</li> <li>5. Promotion of development policy of forestry related industry</li> <li>6. Concentration of land use and advanced utilization of land.</li> </ol>		

<b>PRESENT STATUS</b>	<p>In Progress or In Use</p> <p>Delayed</p> <p>Discontinued</p>
<p><b>Description :</b></p> <p>Utilization of the study: (FY 1992 Overseas Survey) The study prepared 36 plate of maps with three different scales (1:20,000 , 1:50,000 and 1:100,000), which are being used as bases for planning forest resources utilization, forestry project, afforestation program etc.</p> <p>(FY 1996 Domestic Survey) This Study report has been well utilized on the development of roads to transfer the extracted oil and on the overall forestry development. In particular, this Study fully investigated the situation of forestry resources in this area. So, the existing state of forest became clear.</p> <p>Situation: (FY 1994 Overseas Survey) The administration and development plan for the emphasized area was not materialized due to the difficulty of financing. However, the authority concerns about the possibility of new technical cooperation on this subject.</p>	

# STUDY SUMMARY SHEET

(F/S)

CSA ECU/A 302/91

<b>1. COUNTRY</b>	Ecuador	
<b>2. NAME OF STUDY</b>	Small-Scale Fishing Port Development Project in Manabi Province	
<b>3. SECTOR</b>	Fishery / Fishery	
<b>4. TYPE OF STUDY</b>	F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Ministry of Industries, Commerce, Integrated and Fishery (MICIP)
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Nippon Koei Co., Ltd.	
<b>7. STUDY PERIOD</b>	Dec.1990 ~ Mar.1992 15month(s) ~	
<b>8. SITE OR AREA</b>	Manta City, Manabi Province.	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>1)Main Port Facilities:            For small boat Landing: 50m Outfitting Idling 400m            For middle boat Landing: 90m Outfitting Idling 70m            Training Jetty: 430m</p> <p>2)Planned Functional Facilities:            - Refrigerator 30tons            - Fish Handling Space 400sp.m            - Freezer 100tons            - Fish Gear Repairing Space 1000sq.m            - Blast Freezer            - Warehouse 100sq.m            - Work Shop 100sq.m            - Fuel Oil Tank and Others</p>		

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed Partially Completed Implementing Processing	Delayed or Suspended  Discontinued or Cancelled
<b>Description :</b>		
<p>This project may have very high priority as it will contribute not only Manabi Province but all over the country.</p>		
<p>Technical Cooperation: (FY 1994 Overseas Survey)</p>		
<p>On 1994, the Government of Ecuador decided to request for the technical cooperation to construct Puerto Lopez Fishing Port to the Government of Japan. The preliminary measures have been taken on Nov.1994. It is expected that the official request will be submitted on March or April 1995.</p>		
<p>Situation: After making the final report on March1992, MICIP has been deliberating on the possibility of applying for a Japanese Grant. (Oct.1992)</p>		
<p>(FY 1994 Domestic Survey)</p>		
<p>Ecuador Government planned to made an I/P about the facilities which are needed urgently, and to request the Japanese Grant Aid in fisheries. But it seems not to be easy to receive it with in FY 1994.</p>		

# STUDY SUMMARY SHEET

(F/S)

CSA ECU/S 303/92

<b>1. COUNTRY</b>	Ecuador	
<b>2. NAME OF STUDY</b>	Water Resources Development for Chone-Portoviejo River Basins	
<b>3. SECTOR</b>	Social Infrastructure / Water Resources Development	
<b>4. TYPE OF STUDY</b>	F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Centre de Rehabilitacion de Manabi (CRM)
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Nippon Koei Co., Ltd.	
<b>7. STUDY PERIOD</b>	May.1991 ~ Dec.1992 19month(s) ~	
<b>8. SITE OR AREA</b>	Chone-Portoviejo River Basins of the central zone in Manabi state	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>1. Tunnel</p> <p>(1) Daule Peripa Dam-La Esperanza Dam Trans basin scheme (L=8.3km, Q=18m<sup>3</sup>/s)</p> <p>(2) La Esperanza Dam-Poza Honda Dam scheme (L=10.7km, Q=4m<sup>3</sup>/s)</p> <p>(3) Poza Honda Dam-Mancha Grande River Scheme (L=3.9km, Q=4m<sup>3</sup>/s)</p> <p>2. Pumping station, Head tank, open channel, siphon (La Esperanza Dam-Poza Honda Dam Trans Basin Scheme)</p> <p>Pump station (Q=16m<sup>3</sup>/s, H=76m)</p> <p>Open channel (Q=16m<sup>3</sup>/s, L=5.4km, Section: Trape Zadiel)</p>		

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

In February 1993 the Government of Ecuador requested the Japanese government to finance D/D and the construction. The newly elected president expressed his strong commitment for the implementation of this project at his inaugural address. The implementation of D/D and the construction is highly desired.

## (1) Tunnels

(except for the Daule Peripa-La Esperanza Transbasin Scheme)

Refer to "D/D on the Water Transbasin Schemes for Chone Portoviejo River Basins (1994)".

## Subsequent Studies:

Oct.1993-Mar.1995 D/D implemented by JICA

## Finance:

Apr.12.1996 L/A 12.4 bil.Yen (Environment Improvement for Portoviejo River Basins)

Total cost 150.405 mil.US\$ (own fund 25.6 mil.US\$)

## (FY 1998 Domestic Survey)

Although L/A for yen loan was signed, the prospect for implementing the projects by yen loan is vague since there is also some possibility that Brazil will provide funds for these projects.

## (2) Daule Peripa-La Esperanza Transbasin Scheme

## Finance:

## (FY 1994 Overseas Survey)

Andes Fund (Government of Spain) US\$44.1 million

## Construction:

1996 - 1999

Contractor: Dragados Co., Ltd. (Spain)

# STUDY SUMMARY SHEET

(F/S)

CSA ECU/A 304/94

<b>1. COUNTRY</b>	Ecuador	
<b>2. NAME OF STUDY</b>	Tumbabiro Irrigation Project	
<b>3. SECTOR</b>	Agriculture / Irrigation, Drainage & Reclamation	
<b>4. TYPE OF STUDY</b>	F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Ecuadorian Institute of Water Resources
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Pacific Consultants International (PCI) Naigai Engineering Co., Ltd.	
<b>7. STUDY PERIOD</b>	Aug.1992 ~ Feb.1994 18month(s) ~	
<b>8. SITE OR AREA</b>	North-Western side of Ibarra City, Imbabra Province (with an area of 12,800ha and a population of 12,000)	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
1) Dam construction (Rock-fill type, total capacity: 13M ton): 1 2) Head work (75m in width): 1 3) Headrace 23km, Trunk canal 29km (9km of tunnel part to be included) and Branch canal 110km		

ツムバピロ灌漑計画

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed Partially Completed Implementing Processing	Delayed or Suspended  Discontinued or Cancelled
<b>Description :</b>		
<p>The Government of the Republic of Ecuador has keen interest to implement this project by Japanese Yen Credit. However, the present situation is not clear as the authority concerned (INERHI) has been dissolved.</p>		
<p>(FY 1996 Domestic Survey) The Water Utilization Committee has taken over this project after INERHI was resolved.</p>		
<p>(FY 1997 Domestic Survey) The Government of Ecuador puts lower priority to this project than the projects on port, road, power plant, etc.</p>		
<p>(FY 1998 Domestic Survey) No detailed information at present.</p>		



# STUDY SUMMARY SHEET

(D/D)

CSA ECU/S 401/94

<b>1. COUNTRY</b>	Ecuador	
<b>2. NAME OF STUDY</b>	Detailed Design Study on the Water Transbasin Schemes for Chone-Portoviejo River Basins	
<b>3. SECTOR</b>	Social Infrastructure / Water Resources Development	
<b>4. TYPE OF STUDY</b>	D/D	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Restration Center of Manabi State (CRM)
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Nippon Koei Co., Ltd.	
<b>7. STUDY PERIOD</b>	Sep.1993 ~ Mar.1995 18month(s) ~	
<b>8. SITE OR AREA</b>	Chone-Portiviejo River Basins	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>(1)Waterway Tunnel :</p> <p style="margin-left: 20px;">Daule Peripa - La Esperanza ( 8.3km,18cu.m/s)</p> <p style="margin-left: 20px;">La Esperanza - Posa Honda (11.4km,16cu.m/s)</p> <p style="margin-left: 20px;">Posa Honda - Momcha Grande ( 4.1km, 4cu.m/s)</p> <p>(2)Facilities :</p> <p>Pump Station, Head Tank, Open Channel, Siphon, Construction road, Power Line, Substation, etc.</p>		

チヨネ・ボルトヴィエホ川流域導水計画調査(実施設計)

<b>PRESENT STATUS</b>	Completed or In Progress  Completed Partially Completed Implementing Processing	Promoting  Delayed or Suspended  Discontinued or Cancelled
<p><b>Description :</b></p> <p>1. Waterway Tunnel          Subsequent Studies:          Mar.1995 D/D completed</p> <p>Finance:          (FY 1996 Overseas Survey)          Apr.12.1996 L/A 12,400mil.Yen (Environment Improvement for Chone Portoviejo River Basins)          Own fund US\$25.60mil (Total investment: US\$150,405,000)</p> <p>*Content of project          (1)Waterway Tunnel            La Esperanza-Posa Honda (11.4km, 1.6m<sup>3</sup>/s)            Posa Honda-Mancha Grande (4.1km, 4m<sup>3</sup>/s)          (2)Facilities            Pump station, Head tank, Open channel, Siphon,            Consturction road, Power line, Substation, etc.</p> <p>*Daule Perip-La Esperanza Tansbasin Scheme will be excluded.</p> <p>Construction:          (FY 1996 Overseas Survey)          Jul.1997~Jun.2001 Scheduled to be implemented          Construction Trader:under screening</p> <p>(FY 1998 Domestic Survey)          Although L/A for yen loan was signed, the prospect for implementing the projects by yen loan is vague since there is also some possibility that Brazil will provide funds for these projects.</p> <p>*Refer to "Water Resources Development for Chone-Portoviejo River Basins (ECU/S 303/92, JICA F/S)" for detail.</p> <p>2. Daule Peripa-La Esperanza Transbasin Scheme          Finance:          (FY 1994 Overseas Survey)            Andes Fund (Government of Spain) US\$44.1 million          Construction:            1996 ~ 1999          Contractor: Dragados Co., Ltd. (Spain)</p>		

# STUDY SUMMARY SHEET

## (M/P+F/S)

CSA ECU/S 202/95

<b>1. COUNTRY</b>	Ecuador	
<b>2. NAME OF STUDY</b>	Extension of Guayaquil Port	
<b>3. SECTOR</b>	Transportation / Port	
<b>4. TYPE OF STUDY</b>	M/P+F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	APG
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	The Overseas Coastal Area Development Institute (OCDI) Nippon Koei Co., Ltd.	
<b>7. STUDY PERIOD</b>	Jul.1994 ~ Sep.1995 14month(s) ~	
<b>8. SITE OR AREA</b>	Guayaquil Port, port area	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>(F/S)</p> <p>1)Case X (in case that efficiency hasn't increased at a point of 2003)</p> <p>185m Container berth 185m Multi-purpose berth Reclamation related Mooring basin dredging Wharf pavement Pontun transfer for small vessels</p> <p>2)Case Y (in case that efficiency has increased at a point of 2003)</p> <p>185m Container berth Reclamation related Mooring basin dredging Wharf pavement Pontun transfer for small vessels</p>		

グアヤキル港マスタープラン策定計画

PRESENT STATUS	Completed or In Progress Completed Partially Completed Implementing Processing	Promoting Delayed or Suspended Discontinued or Cancelled
<p><b>Description :</b></p> <p>(FY 1996 Domestic Survey) No concrete actions have been taken since only few years have passed after the completion of this Study.</p> <p>(FY 2001 Domestic Survey) In the homepage of the port public corporation (APG) of the Guayaquil Port which is the counter part of this Study, the plan plane view of this Study is carried and signs that realization of this plan is expected are imagined.</p> <p>1. Container Berth (FY 2001 Overseas Survey) No concrete actions have been taken.</p> <p>2. Multi-Purpose Berth (FY 2001 Overseas Survey) No concrete actions have been taken.</p> <p>3. Existing Berth Rehabilitation (FY 2001 Overseas Survey) Rehabilitation and maintenance works for existing berths were implemented.</p> <p>4. Dredging (FY 2001 Overseas Survey) Dredging to keep the depth of the front berth channel at 10m (MLWS) was regularly operated. There is a dredging plan to keep the depth of the front berth channel at 10m (MLWS) permanently.</p> <p>5. Pavement for Berth (FY 2001 Overseas Survey) Protection work for berth floor was regularly operated.</p> <p>6. Pontoon for Small Craft (FY 2001 Overseas Survey) Floating pontoons of motion gear for this system and steel concrete system were regularly repaired.</p> <p>(FY 2005 Domestic survey) There has been no concrete action taken for the construction of container terminal proposed in the study, where existing three berths is still in use.</p> <p>(FY 2005 Overseas Survey) BID-CONAM-APG has conducted a study on privatisation of terminals between 1998 and 2004. No funding request has been made for the study, which the C/P, is considering for a need to take surrounding three private ports and a possibility of constructing a new terminal on deeper points into account, prospecting future 20 years. They are willing to introduce private funds adapting models in private participation in infrastructure.</p>		

# STUDY SUMMARY SHEET

(M/P)

CSA ECU/A 101/05

<b>1. COUNTRY</b>	Ecuador		
<b>2. NAME OF STUDY</b>	Republic of Ecuador, study on development for reactivation of productivity and poverty reduction in the central-southern region of the Republic of Ecuador		
<b>3. SECTOR</b>	Agriculture / (Agriculture in) General		
<b>4. TYPE OF STUDY</b>	M/P		
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>		
	<b>PRESENT COUNTERPART AGENCY</b>		
<b>6. CONSULTANT(S)</b>	Pacific Consultants International (PCI) Naigai Engineering Co., Ltd.		
<b>7. STUDY PERIOD</b>	Nov.2002 ~ Jan.2006 38month(s) ~		
<b>8. SITE OR AREA</b>			
<b>9. MAJOR PROPOSED PROJECT(S)</b>			

エクアドル国シエラ南部地域生産活性化・貧困削減計画調査 (農村開発部)

<b>PRESENT STATUS</b>	In Progress or In Use  Delayed  Discontinued
-----------------------	--

**Description :**

(FY 2006 Domestic Survey)

No information to be specifically mentioned.

# STUDY SUMMARY SHEET

(F/S)

CSA GRD/S 303/97

<b>1. COUNTRY</b>	Grenada		
<b>2. NAME OF STUDY</b>	Road Rehabilitation and Improvement		
<b>3. SECTOR</b>	Transportation / Road		
<b>4. TYPE OF STUDY</b>	F/S		
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>		
	<b>PRESENT COUNTERPART AGENCY</b>		
<b>6. CONSULTANT(S)</b>	Katahira & Engineers International		
<b>7. STUDY PERIOD</b>	Mar.1997 ~ Jan.1998 10month(s) ~		
<b>8. SITE OR AREA</b>	Grenada and Carriacou Island (61.8km)		
<b>9. MAJOR PROPOSED PROJECT(S)</b>			
Highway Improvement Project - Highway length : 45.8km - Highway width : 2 lanes - Bridge construction : 6 new bridges, 4 bridges rehabilitation - Drainage ditch : 31.6 km  [Imp. Period] 3 years and 8 months.			

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

(FY 1998 Domestic Survey)

The Government is desirous of implementing the Project under Japan's Aid program, and has submitted request letters to Japanese Government.

(FY 2000 Domestic Survey)(FY 2002 Domestic Survey)

As part of the "The Marine Products Distribution Improvement Plan in Grenville", the government of Grenada made a request of this road project as the grant aid cooperation. JICA commenced the Basic Design Study in May 2001 in accordance with this request.

(FY 2003 Overseas Survey)

Finance:

9 Jul. 2003 E/N 1,401 mil. yen (Project for Improvement of Fish Marketing for Grenville)

Construction:

Construction of four bridges is almost complet, with the two new bridges scheduled to be open to traffic by the end of 2003. The road at the Hair Pin curve is open to traffic with final asphalt and completion of guard tail remaining.



# STUDY SUMMARY SHEET

## (M/P+F/S)

CSA GTM/S 201B/84

<b>1. COUNTRY</b>	Guatemala	
<b>2. NAME OF STUDY</b>	Flood Control Project (Archiguate and Pantaleon Rivers)	
<b>3. SECTOR</b>	Social Infrastructure / River & Erosion Control	
<b>4. TYPE OF STUDY</b>	M/P+F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Ministerio de Comunicaciones, Transporte y Obras Publicos
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	CTI Engineering Co., Ltd.	
<b>7. STUDY PERIOD</b>	Jul.1983 ~ Feb.1985 19month(s) ~	
<b>8. SITE OR AREA</b>	Archiguate and Pantaleon Rivers	
<b>9. MAJOR PROPOSED PROJECT(S)</b>	<p>[Sediment Control Works]&lt;M/P&gt;The design sediment discharge of 30-year(M/P),10-year (F/S) return period is 1.94 million cu.m(M/P), 710 thousand cu.m(F/S) in the Achiguate river basin and 3.25 million cu.m(M/P), 1,206 thousand cu.m(F/S)in the Pantaleon river basin. The sediment control plan is made up of sediment control dams of cobble stone concrete type. It is proposed that three dams for the Achiguate river basin and five dams for the Pantaleon river basin be conducted to fully regulate the design sediment discharge:&lt;F/S&gt; Sediment control can be accomplished at a limited number of sites by high dams which have the highest sediment regulation effect. Sediment control is made up of two dams of cobble stone concrete type for Achiguate river and one dam of the same type for Pantaleon river.</p> <p>[Flood Control Works]&lt;M/P&gt;To protect the target assets from flood damage, partial river improvement works are employed for the project.</p> <p>For Achiguate river, the flood control works consist of river channel improvement in two stretches for the CA-2 road bridge and the railway bridge and for the urban area in Finca La Trinidad, respectively, and a ring levee around the urban area in Finca La Barrita. For Pantaleon river, river channel improvement will be undertaken for the protection of the CA-2 road bridge and the national railway bridge. The total length of river improvement are 11.0km and 3.4km in the Achiguate and the Pantaleon rivers, respectively. The ring levee is constructed over 5.0km around Finca La Barrita. Riparian facilities such as revetment, ground sill, etc., will be installed to maintain the function of the proposed improvement works. The design flood discharge are 1,200m<sup>3</sup>/s(M/P), 950m<sup>3</sup>/s(F/S) for the Achiguate river and 1,150m<sup>3</sup>/s(M/P), 900m<sup>3</sup>/s(F/S) for Pantaleon river, respectively. &lt;F/S&gt;Flood control can be accomplished by river improvement works. For Achiguate river, the river improvement works are composed of channel excavation with wet masonry revetment and concrete ground sill, and construction of foot protection groyne. For Pnataleon river, river improvement stretches to 3.4km, and river improvement works are of excavation with wet masonry revetment and concrete ground sill.</p>	

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

The reasons for delay or stoppage:

Low priority

Detail:

Regarding M/P, since the arterial road and railway cross the two rivers, it is crucial to ensure the safety of the bridges through effective flood control measures.

Regarding F/S, owing to the budgetary constraints, it is difficult to allocate government funds to the proposed project which would not have an immediate impact on the productive sectors.

Because of the low EIRR, the Government of Guatemala assigned lower priority to the proposed project.

The Government reviewed the study and applied to Japanese Grant Aid in March 1991, but was not successful.

(FY 1991 Overseas Survey)

The Ministry considers that the proposed project is high in urgency and hopes to obtain financial assistance from Japan. The Ministry expects that the project be implemented in conjunction with the conservation of the upper basin of Achiguate River.

(FY 1993 Overseas Survey)

Application for Grant Aid was made in March 1991, however project cost was far beyond the limit of grant aid of Japanese Government and the implementation of the project was suspended. Annual budget of the agency is approximately 6.5 million US\$ and almost all annual budget is spent for maintenance and repair work of existing road. Moreover serious flood damage of other rivers, such as river Samara of Retalhueu province has been observed, so the priority of this project has been ranked low.

(FY 1996 Domestic Survey)

In 1996 a request was submitted to the Japanese government for a grant aid assistance in order to implement a part of the proposed project.

(FY 1997 Domestic Survey)

Request was submitted to Japanese Embassy in Guatemala.

(FY 1998 Domestic Survey)

Although request for a grant aid assistance was submitted in 1997, the project has not been implemented due to the shortage of government fund allocation.

(FY 1998 Overseas Survey)

Application for grant aid over Achiguate River water control was submitted in Sep. 1997, but was not accepted. Hurricane Mitch has done harm in '98 and countermeasure to flood control is urgently needed. The government looks upon the grant aid assistance from Japan.

# STUDY SUMMARY SHEET

## (Basic Study)

CSA GTM/S 501/86

<b>1. COUNTRY</b>	Guatemala	
<b>2. NAME OF STUDY</b>	Ground Water Development Project	
<b>3. SECTOR</b>	Social Infrastructure / Water Resources Development	
<b>4. TYPE OF STUDY</b>	Basic Study	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	EMPAGUA (Empresa Municipal de Agua de la Ciudad de Guatemala)
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Chuo Kaihatsu Corporation	
<b>7. STUDY PERIOD</b>	Jul.1985 ~ Sep.1986 14month(s) ~	
<b>8. SITE OR AREA</b>	Guatemala City, surrounding Guatemala City valley and adjacent northeastern area	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<ul style="list-style-type: none"> <li>- Deep well excavation            38wells</li> <li>- Water distribution facilities    34.2km</li> <li>- Distribution tank                1,260cu.m-2,835cu.m</li> <li>- Power distribution facilities    23,000m</li> <li>- Existing well rehabilitation</li> <li>- Work shop</li> </ul>		

グアテマラ市地下水開発計画

<b>PRESENT STATUS</b>	<p style="text-align: center;">In Progress or In Use</p> <p style="text-align: center;">Delayed</p> <p style="text-align: center;">Discontinued</p>
<p><b>Description :</b></p> <p>Subsequent Studies:  May.2.1994 D/D+S/V (49 months)  Sep.19.1994 Consulting work started</p> <p>Finance:  Jun.16.1992 L/A 4,711 mil.Yen  (1)Construction of 38 deep wells and related facilities.  (2)Renovation of the existing 22 wells.  (3)Fee for the consulting services.  Contract with a Consulting Firm (Chuo Kaihatsu International Corp.)</p> <p>Related Implemented Projects:  (FY 1993 Overseas Survey)  (1)Installation of water level meters and implementation of regular water check-up tests at 64 wells, 80% of 80 wells owned by EMPAGUA.  (2)Digging of 17 new wells with domestic fund of 18 mil.Q.  (3)Study on water supply and distribution system in the North with French loan of US\$ 1 mil.  (4)Organizational restructuring of EMPAGUA.</p> <p>Utilizing a part of US\$ 120 mil. loan which was provided by the World Bank for the economic modernization, EMPAGUA concluded a contract with the consortium composed of TAHAL (Israel), E.T.ARCRER (U.S.A.), SANEPAR and COMSIP (both Brazil) (US\$ 2.15 mil.) and formulated the organizational restructuring plan covering 21 areas, such as management, financial affairs, investment, public fare system, staff training, etc. from 1989. Also, the installation of 40,000 domestic water supply pipes and the procurement of seven vehicles were carried out.</p>	

# STUDY SUMMARY SHEET

(F/S)

CSA GTM/S 301/88

<b>1. COUNTRY</b>	Guatemala	
<b>2. NAME OF STUDY</b>	Development Project of the Port of Santo Tomas de Castilla	
<b>3. SECTOR</b>	Transportation / Port	
<b>4. TYPE OF STUDY</b>	F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Port of Santo Tomas Authority
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	The Overseas Coastal Area Development Institute (OCDI) Yachiyo Engineering Co., Ltd.	
<b>7. STUDY PERIOD</b>	May.1987 ~ Jul.1988 14month(s) ~	
<b>8. SITE OR AREA</b>	Santo Tomas on the Caribbean coast	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>- Short Term Plan (Target year: 1995)</p> <p>1) A container terminal          - Length: 500 m (-11m)          - Area: 25 ha          - Handling equipment: 3 gantry cranes, 6 strand carriers, 1 forklift</p> <p>2) A petroleum terminal          - Length: 270 m (-11m)</p> <p>3) Access Channel          - depth: -11m          - width: 80m          - navigation aid system</p>		

サント・トーマス港開発計画

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

Projects with their own fund:

(FY 1993 Overseas Survey)

Dec.1992 ~July 1993 Dredging of inland channel and grounding of terminal completed with the own fund of 110 mil.Q

The construction of the oil terminal with the domestic fund of 15 mil. Q has been under consideration to be commenced from mid-1995.

Background:

(FY 1991 Overseas Survey)

The study report has been utilized in the Planning Unit and the Engineering Department of EMPORNAC. The project is given high priority, therefore, it is likely to be implemented in future.

(FY 1993 Overseas Survey)

The 1989 OECF Loan Appraisal Mission proposed a loan on the condition that the project scale be reduced: (1)Installation of two gantry cranes instead of three, (2)Installation of four strand carriers instead of six, (3)Reduction of the forklift capacity by half and (4)no construction work on the waterways because of the environmental consideration. However, the Minister of Finance did not approve the acceptance of the loan in fear that the Port of Santo Thomas Authority be unable to repay. As a result, there will be no possibility to implement the project with an OECF loan.

(FY 1993 Overseas Survey)

In August 1993, the Central American Bank of Economic Integration (BCIE) decided to provide loan (45 mil. Q) for expansion of container terminal, the construction of container yard, the improvement of navigation aid facilities and the installation of cranes. The construction was planned to be completed by Dec. 1997 (total construction cost: 525 mil. Q, including 45 mil. Q of the foreign currency).

(FY 1993 and 1998 Overseas Survey)

Since D/D and EIA was conditioned prior to the provision of BCIE loan, EMPORNAC conducted EIA in Nov. 1993 and started D/D in July 1994 with their own fund (2.5 ~ 3 mil. Q). However, the provision of BCIE loan was postponed.

# STUDY SUMMARY SHEET

(F/S)

CSA GTM/A 301/88

<b>1. COUNTRY</b>	Guatemala		
<b>2. NAME OF STUDY</b>	Monjas Irrigation Project		
<b>3. SECTOR</b>	Agriculture / (Agriculture in) General		
<b>4. TYPE OF STUDY</b>	F/S		
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Ministerio de Agricultura, Ganaderia y Alimentacion	
	<b>PRESENT COUNTERPART AGENCY</b>		
<b>6. CONSULTANT(S)</b>	Pacific Consultants International (PCI) Sanyu Consultants Inc.		
<b>7. STUDY PERIOD</b>	Jul.1987 ~ Jul.1988 12month(s) ~		
<b>8. SITE OR AREA</b>	Jalapa, Monjas (Area 7,100ha, population 14,130, 150km from the capital)		
<b>9. MAJOR PROPOSED PROJECT(S)</b>			
Irrigation area: 4,800 ha			
Reservoir : Main dam: Height 49m Length 1,072m, capacity 2.63MCM Sub dam : Height 31m Head work : Water Intake 4.3cu.m/s			
Driving canal: 4.0 cu.m/s 9.5km			
Diversion canal: South 3.28cu. m/sec 8km North 2.23cu.m/sec 15.2km			
Main canal: 1,526 cu.m/sec 18km			
Latenal canal: 0.338 cu.m/sec 39km			
Regulating pond : 3 units			
* The cost is estimated in Oct. 1987 prices.			

モンハスカんがい計画

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

## Subsequent Studies:

(FY 1994 Domestic Survey)

Due to change of laws, environmental assesment study is required before the implementation of the project. The DIRYA has completed the environmental assesment study.

(FY 1997 Domestic Survey)

An expert of a consulting company which conducted F/S accompanied JICA short-term expert in FY 1993 and made a draft on EIA.

## Finance:

\*Process

(FY 1989 Domestic Survey)

In view of the high priority of the proposed project, the Government of Guatemela applied for Japanese Grant Aid in March 1989, but it was not successful due to huge project cost of US\$46.85 mil.

(FY 1991 Overseas Survey)

The ministry assigns high priority to the proposed project and plans to revive the request for Japanese Grant Aid in 1992.

(FY 1993 Overseas Survey)

2 JICA experts were sent for 1 month to conduct complementary study and to find out measures to reduce the project cost. The agency is still planning to apply grant aid and loan aid for the implementation of the project.

(FY 1993 Overseas Survey)

Priority of the project is stil ranked high and is the top priority project among agricultural projects of Guatemelan Government. The agency considers that project cost of 70,000q/ha is almost 3 times as compared to standard project cost of 20,000q/ha.

(FY 1994 Domestic Survey)

According to the result of project cost review by JICA experts, the total cost of the project was US\$63 million. The Government of Guatemela hasn't dicided to implement the project.

(FY 1996 Domestic Survey)

The project implementation has been hindered because the project cost is too big for grant aid assistance and the adaption of an OECF loan is likely to burden farmers. Unless the government decides the allocation of more fund to this project, it is unlikely that an OECF loan is approved.

(FY 1997 Domestic Survey)

While the expert was in Guatemala, "Conference for Urgent Implementation of the Project" was held by beneficiaries and local public organizations, requesting realization of the project to the Government.

It seems that the development project which needs large-scale investment is difficult to approve because of the Government's policy not to increase foreign debt.

(FY 1997 Overseas Survey)

In the period of change of regime, the management was stopped and priority of the government was changed. Therefore, the project was postponed also because of its high cost.

According to the policies of MAGA, the project referred to development of irrigation areas had high priority during 1991 from now on. It was informed that the Ministry of Agriculture is willing to support the Monjas Project into an investment average of 36,000 per ha, but it is necessary to review the study.

(FY 1998 Overseas Survey)

The enlargement of irrigation area is an important agricultural policy, whereas MAGA continues to put high priority on this project and is willing to implement it. Because of the private management policy of irrigation which started from 1987 (management of facility by farmers etc.), it is necessary to review the survey.



# STUDY SUMMARY SHEET

(F/S)

CSA GTM/S 302/89

<b>1. COUNTRY</b>	Guatemala	
<b>2. NAME OF STUDY</b>	Development Project of La Aurora and Santa Elena Airports	
<b>3. SECTOR</b>	Transportation / Air Transportation & Airport	
<b>4. TYPE OF STUDY</b>	F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Direccion General de Aeronautica Civil (AGDC)
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Nippon Koei Co., Ltd.	
<b>7. STUDY PERIOD</b>	Jan.1989 ~ Feb.1990 13month(s) ~	
<b>8. SITE OR AREA</b>	La Aurora airport in Guatemala city and St.Elena airport in Peten City	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
(Emergency Programs)		
1. Renovation of radar systems including installation of ASR/SSR equipment and renovation of CFR facilities at La Aurora.		
2. Renovation of secondary power system at Santa Elena.		
(Short-term Development)		
1. Improvement of runway, taxiway and apron.		
2. Improvement of drainage and other infrastructures.		
3. Improvement and expansion of terminal buildings.		
4. Improvement of aviation support facilities, including visual nav aids.		
5. Improvement of electrical power supply and other airport supporting facilities.		
Note: Cost 1) is for La Aurora Airport and Cost 2) for Santa Elena Airport.		

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

## Project implemented

Even with the reduced scale and cost, some feasible projects are being implemented by their own budget.

## (1)Aurora Airport

## 1. Renewal of radar system

(FY 1998 Overseas Survey)

New radar system was ordered. Primary radar and single-pulse radar were purchased. They are to be installed by the Paytheon-Indran enterprise within this year. The construction of a new control tower which is included in this project was started.

(FY 1999 Overseas Survey)

Regarding the renewal of primary radar ELTA, conventional secondary model COSSOR, primary radar system PYTHOEON ARS 10SS, secondary radar mono pulse INDRA IRS20MP-L, radar data processing AIRCON2000 system, voyage plan data processing, 80% of civil work and 10% of installation have been completed.

2. Recording system and VHF telecommunication of the control tower were purchased from AEROCOM Co. (USA) with the cost of 2 million Q. Installed on Jun.1993.

3. Visual freight support system was purchased from CROUISE HANDS Co. (USA) with the cost of 5 million Q. It will be installed on Mar.15.1994.

4. Modernization and expansion of terminal building: A contract agreement has been signed with COGUSA Co. However, due to the rapid increase of demands, the cost estimation is not come out as yet. Various facilities are provided already, but the periods of installation are not fixed because of the lack of infrastructure for security.

(FY 1998 Overseas Survey)

Improvement works of customs, baggage conveyor, bank services, rent-a-car, hotels, VIP room, baggage room was conducted.

Regarding the JICA-proposed projects, the transfer of the baggage conveyor to the north part was implemented. North satellite plan proposed by JICA as a short-term project is under consideration.

The construction is suspended because the plan to transfer the concession of developing the airport is under consideration.

5. Repavement of the arrival runway at the La Aurora Airport was implemented by the successful bidder. Not only the methods suggested by JICA, but some other convenient methods are considered to apply on this project.

(FY 1998 Overseas Survey)

Construction works were conducted by Sigma Construction for five months in 1994. Paving work of the part of taxiway was conducted.

(FY 1999 Overseas Survey)

Improvement of the taxiway is on-going.

## (2)Santa Elena Airport

## 1. Renewal of radar system

(FY 1998 Overseas Survey)

New radar system was ordered. Single-pulse radar were purchased. They are to be installed by the Paytheon-Indran enterprise within this year. The construction of a new control tower which is included in this project was started.

## 2. Visual freight Support System at Santa Elena Airport

To renew within FY 1994, budget for the installation has been presented to the Diet.

## 3. Improvement of the terminal building

(FY 1998 Overseas Survey)

It was improved recently. However, it has not been expanded.

## Pending Problem

The DGAC has not yet decided on the schedule of implementation of large-scales projects due to economic reason.

(FY 1993 Overseas Survey)

1) DGAC attempted to request an OECF loan for the short-term development program, but the Ministry of Finance turned it down because of the high project cost, and no further development along this line partly due to the policy change that places more emphasis on social sectors.

2) The GOG made a request for a 1000mil.yen Japanese Grant on the renovation of CFR facilities in 1990, but it has not been realized. Although studies were conducted by two Western engineering companies : by Westinghouse in late 1993 and

Electronics in Feb. 1994, DGAC has concluded that the project is too large (\$10 mil. to 15 mil.) to be carried out with domestic fund.

(FY 1998 Domestic Survey)

All the projects proposed in the emergency development program and the short-term development program have not been completed. The government has been promoting the projects, while some political parties have been opposing them. Therefore, progress has been made with very slow pace.

# STUDY SUMMARY SHEET

## (M/P)

CSA GTM/S 101/91

<b>1. COUNTRY</b>	Guatemala		
<b>2. NAME OF STUDY</b>	Comprehensive Urban Transportation System in Guatemala Metropolitan Area		
<b>3. SECTOR</b>	Transportation / Urban Transportation		
<b>4. TYPE OF STUDY</b>	M/P		
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Guatemala Municipality	
	<b>PRESENT COUNTERPART AGENCY</b>		
<b>6. CONSULTANT(S)</b>	Yachiyo Engineering Co., Ltd. Central Consultant, Inc.		
<b>7. STUDY PERIOD</b>	Jul.1990 ~ Dec.1991 17month(s) ~		
<b>8. SITE OR AREA</b>	Guatemala Metropolitan Area 937 sq.km		
<b>9. MAJOR PROPOSED PROJECT(S)</b>			
<p>1) Phase I (Immediate Action Projects)</p> <p>a) Bus stop development b) Bus lane development c) Effective lane usage d) Pavement marking development e) Side walk development</p> <p>2) Phase II (Short Term Projects)</p> <p>a) East-West corridor development b) Preriferico tramo development</p> <p>c) Ave. Petapa Improvement d) 15 Ave. Improvement e) A part of intersectio improvement f) Busway (Ciudad Ral to Zona 4) development g) Traffic control system development h) Parking card system development i) Pedestrian mall development</p> <p>3) Phase III, IV (Mid Term and Long Term Projects)</p> <p>a) Eastern part of middlering road development b) Intersection improvement c) Bus way development (Mixco to Centro) d) Bus center Zona 4 improvement e) Extra-Urban bus terminal f) Bus inspection center construction g) Traffic control system development h) Traffic safety park development</p> <p>4) Long term Project</p> <p>a) Outer ring road development b) Northern part of the middle ring road development c) Inner ring road improvement d) CA-9 (South) improvement e) Ca-1 (East) improvement f) 13 Ave. 6A Ave. and 35 Ave, improvement g) Boulevard sud improvement h) Bus way (Villa Nueva-Centro) development i) Bus center zona 1 development j) Car parking development</p>			

首都圏交通網整備計画

<b>PRESENT STATUS</b>	In Progress or In Use
	Delayed
	Discontinued

**Description :**

Based on the Study results, 31 projects, which belong to any of (i)Road Network Plan, (ii)Public Transportation Plan or (iii)Traffic Management Plan, were proposed to be implemented by 2010.

(1)Projects for East-West Corridor, Ave.Petapa, Busway, Bus Centers for Each Zone, Extra-Urban Bus Terminal and Bus Weight Inspection Center.

These six projects were interated into one project. The Japanese government was requested for the implementation of its F/S.

In Apr.1995 a preliminary survey mission was dispatched and S/W was concluded.

Aug.1995-Feb.1997 JICA F/S "Comprehensive Urban Transportation System in the Metropolitan Area (S 313/96)"

(2)Improvement of Intersections

The construction is scheduled to be commenced from 1995 with 30 mil.Q.fianced by central American Bank of Economic Integration.

\*Initially, F/S for this project wasrequested to JICA. (Although M/P proposed to construct an underground multi-level crossing at four intersections, due to the cost consideration, it was revised to the construction of flyovers).

(3)Three Projects out of 14 projects in Phase I and II

Finance: Own fund of the City of Guatemala

-Improvement of 15 streets in six districts

(Budget:6 mil.Q/Implementing Period:Nov.1992-Apr.1994)

-Improvement of 250 bus stops

(Budget:3 mil.Q/Implementing Period:Jan.-Dec.1994)

-Improvement of road signs

(Budget:0.7 mil.Q/Implementing Period:two years commencing in Jan.1994)

(4)Improvement of Traffic Control System

A bill was submitted to the legislature in order to change the jurisdiction of the traffic control from the Police Department to the City of Guatemala. After the bill is passed, the budget will be allocated and the project will be commenced in the first half of 1995.

(5)Ave. Hincapie Project (Frequent occurrence of traffic accidents are observed in this avenue)

A part of the projects such as the construction of a bridge and the improvement and the widening of road have been implemented by the Ministry of Traffic, Communications and Public Works.

(Budget: 20 mil. Q/Implementing Period: May-June, 1992)

(6)Middle Ring Road Plan (one of four mid-term projects)

(FY 1993 Overseas Survey)

The construction of a part (3km) of the ring road is scheduled to be commenced from November 1994 with the budget of the City of Guatemala (7 mill. Q).

## STUDY SUMMARY SHEET (M/P+F/S)

CSA GTM/S 202B/91

<b>1. COUNTRY</b>	Guatemala	
<b>2. NAME OF STUDY</b>	Solid Waste Management in Metropolitan Area of Guatemala City	
<b>3. SECTOR</b>	Public Utilities / Urban Sanitation	
<b>4. TYPE OF STUDY</b>	M/P+F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Public Service Bureau (DSP), Municipal Public Cleaning Department (DLPM)
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Environmental Technologic Consultants Co., Ltd.	
<b>7. STUDY PERIOD</b>	Jun.1990 ~ Sep.1991 15month(s) ~	
<b>8. SITE OR AREA</b>	Guatemala City, Mixco City, Villa Nueva City, Chinautla City, Villa Canales City, Sta. Catarina Pinula City (350 sq.km, population 1,532,000 in 1990)	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>M/P(target year: 2000, estimated population:2,047,000)</p> <p>1) Expansion of collection service</p> <p>2) Improvement on final disposal</p> <ul style="list-style-type: none"> <li>- Immediate conversion of the EL Trebol disposal site into a controlled landfill</li> <li>- Construction of a new sanitary landfill</li> </ul> <p>3) Institutional development and financial strengthening</p> <ul style="list-style-type: none"> <li>- Concessions of collection service to private collectors</li> <li>- Preventive maintenance and repair program</li> <li>- Education and community participation programs</li> <li>- Personnel training program</li> <li>- Recycling and resource recovery program</li> <li>- Institutional organization of the DSP</li> <li>- Initiate metropolitan committee in charge of solid waste</li> </ul> <p>F/S(planned year: 1996, estimated population:1,841,000)</p> <p>1) Improvement of collection service in surrounding areas(experiments on container collection and equipment management): Zone cession to private collectors/ increased efficiency in operation/ improvement of collection service in isolated areas</p> <p>2) Improvement of final disposal sites: EL Trebol landfill(existing) and a new sanitary landfill in Las Guacamayas</p> <p>3) Institutional strengthening: Formation of a working group and a Metropolitan Solid Waste Committee/ increase of the SWM's budget/ a pilot program on sanitary education for residents, etc.</p>		

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

(1)El Trebol Landfill

Subsequent Studies:

Jan.1992 B/D

Finance:

Mar.1992 E/N (Project for Procuring Equipment for the Management of Solid Garbage in the Metropolitan Area, 309 mil.Yen)\*

\*Contents of project

Equipments for the management of solid garbage (4 bulldozers, 2 wheel-loaders, 4 dump-trucks for gravel transportation and 10 dump-trucks for refuse-collection) to resolve sanitary problem in Guatemala City.

Local fund (Guatemala City)

(FY 1998 Overseas Survey)

They are waiting for the approval of IDB loan (US\$34.7 million) for collection, transportation disposal plant and landfill of the waste.

(FY 1999 Overseas Survey)

Solid waste project is not financed by IDB. Domestic and international bid will be done at the end of Apr. 2000 for plant and landfill project with the contract period of 20 years.

Construction/Realized Project:

\*Equipments

Mar.1993 Delivery ceremony (The instructions in operation and maintenance of bulldozers and those in operation of truck/ wheel loader were given by experts for 10 days and 2 days respectively.) The central vehicle maintenance factory which handles protection and maintenance of vehicles and heavy machines, electric circuit and lathe-procession of repair parts has been set up separately from the solid wastes section. Condition of staff and finance has been much improved. Constant supply of parts, under this grant project, is expected to improve operation of the vehicles and machines considerably.

\*Dispatch of Experts

Nov.-Dec.1993 Two experts on landfill were dispatched and their guidance contributed to improve the treatment.

\*Guatemala City, Local Fund

Four truck slopes, two office buildings and four truck scales were prepared by its own budget. Now, the landfill is collecting garbages from all public area and 75~80% domestic area.

\*Others

Rooms for heavy machines,storehouse for parts and workers' houses have already been set up at the El Trebol landfill and the scavengers have been living in the newly completed houses.

(2)El Guacamaya Landfill

Land acquisition trouble caused this project to delay.

(FY 1999 Overseas Survey)

This site is no more candidate site for the project due to the people's movement against the project.

(3)Privatization of Garbage Collection

The project was once implemented,but it is unsuccessful. Flowing step is not decided now.

(FY 1999 Overseas Survey)

Area classification system and route were proposed for the management of the waste collection and transportation.

(4)Approval System for Garbage Collection

The City introduced approval system on 239 private garbage trucks. The trucks have annually periodical inspection and area restriction.

(FY 1999 Overseas Survey)

307 private trucks were checked and approved. These trucks were divided into 286 routes for waste collecting services.

(5)Sanitary Education

Video software provided by JICA was useful to enlighten adults and pupils. Almost 250 thousand persons already have seen it.

(6)Metropolitan Garbage Committee

Established. However, unsuccessful function brought the Committee to discontinue.

(7)Restructuring of Public Cleaning Department

The City established Advisory Committee. The Department will be restructured in 1995.

Others:

(FY 1998 Overseas Survey)

Environmental plan regarding the solid waste management in the city has been formulated since Nov.1996 with IDB finance of US\$360,000.

# STUDY SUMMARY SHEET

## (M/P)

CSA GTM/A 101/92

<b>1. COUNTRY</b>	Guatemala	
<b>2. NAME OF STUDY</b>	Integrated Agricultural and Rural Development Project in Jutiapa	
<b>3. SECTOR</b>	Agriculture / (Agriculture in) General	
<b>4. TYPE OF STUDY</b>	M/P	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Ministry of Agriculture, Livestock and Food (MAGA), Sectorial Unit of Agricultural and Food Planning (USPADA)
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Pacific Consultants International (PCI)	
<b>7. STUDY PERIOD</b>	Mar.1992 ~ Dec.1992 9month(s) ~	
<b>8. SITE OR AREA</b>	Department of Jutiapa	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>Project cost 1) is of total projects 2) is of high priority projects.</p> <p>In the Master Plan Study, a total of 12 project have been formulated, of which the Santa Catarina Mita Integrated Rural Development Project and The Moutufar Integrated Rural Development Project have been identified as high priority project.</p> <p>Santa Catarina Mita Integrated Rural Development Project: The Project consists of irrigation plan ( rehabilitation and construction of pumping station). rural roads &amp; rural water supply development plan and other component.</p> <p>Muntufar Integrated Rural Development Project: The Project consists of irrigation plan (2,400ha) drainage plan (1,065ha), rural road and rural water supply development plan.</p>		

<b>PRESENT STATUS</b>	<p style="text-align: center;">In Progress or In Use</p> <p style="text-align: center;">Delayed</p> <p style="text-align: center;">Discontinued</p>
<p><b>Description :</b></p> <p>Finance: (FY 1996 Domestic Survey) The Government of Guatemala made application for Grant Aid in Sep.1993 for the implementation of Santa Catarina Integrated Rural Development Project and Montufar Integrated Rural Development Project. Both Santa Catarina Mita Project and Montufar Project were on the list of the projects for which B/D is expected to be implemented. However, no progress has been made for the realization of B/D.</p> <p>(FY 1997 Domestic Survey) There is no progress in the situation.</p> <p>Situation: The agency puts the higher priority on Santa Catalina Mita Project because it is planned to utilize the existing facilities. The agency is negotiating with SEGEPLAN for the implementation of Montufar project to start after the implementation of Santa Catalina Mita Project.</p> <p>(FY 1997 Domestic Survey) At Santa Catarina Mita Integrated Rural Development Area, a part of rural road project is being implemented. MAGA has desired for early realization of both projects.</p> <p>(FY 1997 Overseas Survey) The implementation of the project has been delayed because of politic changes during 1992 from now on, change of investment priorities besides the high cost of the project and the economic situation the city went in through that period. According to the Agriculture Ministry the project is not feasible to execute as it was originally stated, and it will be necessary to check it and to bring up to date to search the possible alternatives to carry out.</p> <p>(FY 1998 Domestic Survey) The government changed their development target area and contents due to the change of political regime, policies, and peace agreement, following the cease of civil war. Therefore, the project has not been implemented.</p> <p>(FY 1999 Overseas Survey) Ministry of Agriculture implemented the project on irrigation infrastructure and pump equipment. The National Assembly approved the implementation of the development project in the north-east part of the country including Department of Jutiapa.</p> <p>(FY 2000 Domestic Survey) The project on irrigation infrastructure and pump equipment that was implemented by Ministry of Agriculture is one of the proposed projects in this Study. There is no information about the reason why the Santa Catalina Mita Project and the Montufar Project did not realize the request for the Grant Aid.</p>	



# STUDY SUMMARY SHEET

## (M/P+F/S)

CSA GTM/S 203/95

<b>1. COUNTRY</b>	Guatemala	
<b>2. NAME OF STUDY</b>	Groundwater Development in the Central Plateau Area	
<b>3. SECTOR</b>	Social Infrastructure / Water Resources Development	
<b>4. TYPE OF STUDY</b>	M/P+F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	INFOM
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Kokusai Kogyo Co., Ltd.	
<b>7. STUDY PERIOD</b>	Jan.1994 ~ Jul.1995 18month(s) ~	
<b>8. SITE OR AREA</b>	54 local cities at central plateau of Guatemala, F/S on 10 cities	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>Phase I study: M/P on 54 cities.            Summary study on water use, water supply condition, water resources development potential, and type analysis of 54 cities. 10 cities were selected for F/S.</p> <p>Phase II study: F/S on 10 cities selected by points of ground water development potential, social economic condition related to maintenance of water supply facility.</p> <p>As a result, water resource development in 10 cities (excepting one town which needs only one trial boring well), and improvement on water supply facility (construction of drainage pond and construction of distribution facility from new resources) were proposed.</p>		

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

(FY 1996 Domestic Survey)  
 The first half of 1994. M/P undertaken.  
 The second half of 1994~the first half of 1995. F/S undertaken.  
 Jul.1996 F/R submitted.  
 Oct.1995 INFOM requested Japanese Grant Aid for ground water development at 10 cities of F/S.

(FY 1998 Domestic Survey)  
 Finance:  
 Grant Aid E/N Dec.10.1997 "Groundwater Development in the Central Plateau Area"

\*Contents:  
 Construction of wells, installation of pumps, construction of water distribution pipes, provision of maintenance materials and water quality check.

Construction:  
 (FY 1999 Overseas Survey)  
 Completed.

# STUDY SUMMARY SHEET

## (M/P)

CSA GTM/A 106/96

<b>1. COUNTRY</b>	Guatemala	
<b>2. NAME OF STUDY</b>	Forest Management in Baja Verapas	
<b>3. SECTOR</b>	Forestry / Forestry & Forest Conservation	
<b>4. TYPE OF STUDY</b>	M/P	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Direccion General de Bosques (DIGEBOS)
	<b>PRESENT COUNTERPART AGENCY</b>	Instituto Nacional de Bosques (INAB, National Institute of Forests)
<b>6. CONSULTANT(S)</b>	Japan Forest Technical Association Pasco International Inc.	
<b>7. STUDY PERIOD</b>	Jan.1995 ~ Dec.1996 23month(s) ~	
<b>8. SITE OR AREA</b>	Entire Department of Baja Verapaz (280,000ha) and San Jeronimo National Forest (1,700ha) located in the department.	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>1. Forest Management Plan for Baja Verapaz</p> <ul style="list-style-type: none"> <li>- Established operational standards for each stand classifications: Production Forest, Conservation Forest, Protection Forest;</li> <li>- Prepared a proposal for forest industry development; and</li> <li>- Incorporated environmental considerations in the Plan.</li> </ul> <p>2. Management Plan for San Jeronimo National Forest</p> <ul style="list-style-type: none"> <li>- Forest Operation Plan: Established principals and methodologies of forest operation in production and conservation forests.</li> <li>- Social Forestry Plan: Land use planning for farm and grass lands used by local inhabitants in and around the National forest.</li> <li>- Training forest Plan: Exhibition Forest, Seed Collecting Forest, Sample Forest, Experimental Forest, etc.</li> <li>- Training Programs: Training programs at Sub-regional forestry Office II-4 and in San Jeronimo National Forest.</li> </ul>		

<b>PRESENT STATUS</b>	In Progress or In Use
	Delayed
	Discontinued

**Description :**

(FY 1997 Domestic Survey)

## 1. Reorganization

Based on the New Forest Law put in force on January 2, 1997, DIGEBOS, the counterpart organization for the Study has been re-established as INAB (National Institute of Forests). Although there has been substantial staff turnover, the key counterpart personnel, Ing. Noengry has kept his office at Regional Office II.

As a technical for Regional Office II which controls the Study Area, Noengry is preparing for the implementation of the Plan. Recently, "Junta Directiva" has been established as the highest decision-making body with an authority over the Director of INAB. He advised that the Japanese side need to consult Junta Directiva, at diplomatic level, for smooth implementation of the Plan.

## 2. Utilization of the outputs

The outputs of the Study, such as aerial photography and thematic maps, are now utilized for operation of INAB, as well as in the implementation of UNEPROCH project (This project is being implemented by the Ministry of Agriculture, Livestock and Food for the purpose of natural resource management and rural community development. It covers an area of 5494 km<sup>2</sup> in the upstream of Chixoy river including Baja Verapas). The outputs of the Study are also used for PLV (Regional Development Program "Las verapaces" implemented by SEGEPLAN/GTZ) for local development.

(FY 1998 Overseas Survey)

Sub-projects for San Jeronimo National Forest have not been implemented due to the lack of finance. Although the request was submitted for the provision of a grant aid assistance and dispatch of two Japanese experts (inventory and forest conservation), there has not been any response so far.

The training in Japan regarding natural resources was given to an expert of DIGEBOS.

INAB is presently in charge of San Jeronimo National Forest. However, it is under consideration that the concession of development of the Forest will be transferred to the private sector.

(FY 1999 Overseas Survey)

Due to the change of the forest policy, INAB provides incentives to the land owners who are engaged in afforestation and management of the land used as the forest. As a result, the land owners participate in forest management and afforestation.

San Jeronimo Farm Project:

(FY 2001 Overseas Project)

Regional members of farms, concerned organizations, and schools participate in the project activities such as forest fire control education and farm regional members group formation.

This project is supported by engineers of INAB which offices locate in each municipality and San Jeronimo, Baja Verapas.

Content(s):

1. Feasibility of the forest concession under the forest act No.12 is to be researched by forestry consultants.

2. Management of national farms: Organizational/technical forestation, Forest control and observation, Conservation of natural resources.

Objectives:

1. To transfer the concession of National San Jeronimo Farm to the private sector under the Forest Act and to implement conservation of natural resources.

2. To complete the procedure of concession of National San Jeronimo Farm in Baja Verapaz.

3. To promote participation of the neighbor farm district for the feasible utilization of natural resources in the National San Jeronimo Farm.

(FY 2002 Overseas Survey)

At present, control of illegal logging, prevention and control of forest fires, and monitoring and management of resources within farms have been continuously implemented.

# STUDY SUMMARY SHEET

## (M/P+F/S)

CSA GTM/S 219/96

<b>1. COUNTRY</b>	Guatemala	
<b>2. NAME OF STUDY</b>	Improvement of Wastewater Management in the Guatemala Metropolitan Area	
<b>3. SECTOR</b>	Public Utilities / Sewerage	
<b>4. TYPE OF STUDY</b>	M/P+F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	
	<b>PRESENT COUNTERPART AGENCY</b>	Empresa Municipal de Agua (EMPAGUA: Guatemala Municipal Water Supply Public Corporation)
<b>6. CONSULTANT(S)</b>	Nihon Suido Consultants Co., Ltd. Pacific Consultants International (PCI)	
<b>7. STUDY PERIOD</b>	Mar.1995 ~ Sep.1996 18month(s) ~	
<b>8. SITE OR AREA</b>	Guatemala Metropolitan Area	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>&lt;M/P&gt; Implementation Schedule for the sewerage/sanitation facilities, and operation/management plan of those systems/facilities (20,470ha)</p> <p>&lt;F/S&gt; Construction Schedule of sewerage/ sanitation facilities in the top priority area (South-3 area:2,360ha) selected in the Master Plan.</p> <p>[Imp. Period] &lt;M/P&gt; 1999~2015 &lt;F/S&gt; 1999~2001</p>		

グアテマラ首都圏下水道整備計画調査

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

(FY 1997 Domestic Survey)

As recommended in the F/S, EMPAGUA started to execute the South-3 project with an external loan, but the recent unfavorable economic condition of Guatemala and the priority of the Guatemala City for the external loan which was focused on the purchase of public buses, etc., made difficult to arrange a loan for South-3 project.

However, the increasing wastewater generated in the South-3 area would degrade rapidly the water environment and living environment, and also would contaminate very important ground water (Water source of Guatemala Water Supply), if no wastewater management projects start.

Since it is urgent to start the wastewater management project in South-3 area, EMPAGUA prepared an application for grant-aid to Japanese Government and submitted to SEGEPLAN for the approval.

It has been reported that recently SEGEPLAN approved the application and informed EMPAGUA to proceed.

(FY 1998 Domestic Survey) (FY 1998 Overseas Survey)

Although the request for OECF loan was supposed to be submitted, another project was given higher priority. However, the negotiation is undergoing through SEGEPLAN, and the request is planning to be submitted in coming Jan. 1999.

\*Contents of the request:

- OECF loan
- Planned implementation agency: EMPAGUA
- Planned implementation schedule: year of around 2000
- Contents: Construction of sewerage/ sanitation facilities in the priority area in F/S and its relating D/D, S/V (Supervision), and C/S (Consulting Services).

(FY 1999 Domestic Survey)

Government of Guatemala is in the process of selecting one project for requesting Japan's ODA loan out of three projects, one of which is the project proposed by this Study.

(FY 1999 Overseas Survey)

Government of Guatemala (SEGEPLAN and Ministry of Finance) decided that the proposed project by this Study should be put first priority in requesting Japan's ODA loan. EMPAGUA submitted the document to Ministry of Finance in Dec. 1999.

Amount to be requested: 128,460,000 USD

Contents: sewage collecting channel, sewage treatment plant, etc.

(FY 2001 Domestic Survey)

Although this project has a high priority, it is difficult to implement by the financing under the Yen loan because of the financial problem of EMPAGUA.

(FY 2002 Overseas Survey)

The implementing agency is collecting information on the current or planned projects.

# STUDY SUMMARY SHEET

(F/S)

CSA GTM/S 313/96

<b>1. COUNTRY</b>	Guatemala		
<b>2. NAME OF STUDY</b>	Comprehensive Urban Transportation System in the Metropolitan Area		
<b>3. SECTOR</b>	Transportation / Urban Transportation		
<b>4. TYPE OF STUDY</b>	F/S		
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>		
	<b>PRESENT COUNTERPART AGENCY</b>		
<b>6. CONSULTANT(S)</b>	Yachiyo Engineering Co., Ltd. Chodai Co., Ltd.		
<b>7. STUDY PERIOD</b>	Sep.1995 ~ Jan.1997 16month(s) ~		
<b>8. SITE OR AREA</b>	Guatemala Metropolitan area		
<b>9. MAJOR PROPOSED PROJECT(S)</b>			
<p>1) Petapa road Construction project to build the trunk road between Guatemala and Petapa to the south. This road is planned as a four-lane road 7.2km in length and 30m in width.</p> <p>2) Fegua exclusive bus road An inter-city railway runs through the Guatemalans urban area from south to north. The planned road will utilize the unused right-of-way on both sides of the railway as a exclusive bus road. This will greatly improve bus service.</p> <p>3) Bus inspection and service center. The center will contribute to improvement of the maintenance of Guatemalans inner city buses while improving the bus service. This will also facilitate the flow of public transportation. This center will also help reduce urban pollution from buses, such as air pollution, noise, and vibration. The center planned will have an inspection capacity of 3,000 buses annually.</p> <p>[Imp. period] 1) 1998~2000 2) 1998~2003 3) 1997~1998</p>			

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

\* This project is derived from JICA M/P "Comprehensive Urban Transportation System in Guatemala Metropolitan Area (S101/91)".

(FY 1998 Overseas Survey)

Construction of Naranjo Bridge and supplement construction work of the East-west Corridor have been implemented with own fund of Guatemala City. The renewal of signals, traffic signs, bus stops, and other equipment which was proposed by JICA has been completed by 40 % and transferred to the Public Transport Management Institution. The subsequent study (D/D) regarding East-west Corridor and Atanasio Tzul Project is planning to be conducted in 2000 ~ 2001 and the request for the loan is to be submitted by the end of this year.

Japanese technical cooperation:

(FY 1998 Overseas Survey)

1999 ~ (1 year) Acceptance of 4 trainees (public transport).

(FY 1998 Overseas Survey)

The project is proceeding satisfactorily because

-raising finance became within the range of possibility with establishment of regulations from 1995.

-the government became to understand the importance to carry out the proposed plan of the comprehensive urban transportation system in metropolitan area .

- the present president makes good use of his experience as a mayor.

(FY 1999 Overseas Survey)

Construction of the followings has been completed: La Paz Calzada (5km), Atanasio Tzul Calzada (5km), Rafael Landivar Boulevard (5km), acquisition of buses, level crossing, network of signals, etc.

Request for Japanese government's cooperation for "Centralization and automatization of the signal system in Guatemala City" was submitted.

F/S for "" is under implementation with own fund. Request for BCIE (Central American Bank for Economic Integration) is suspended.

(FY 2000 Domestic Survey)

(1) Petapa Road: Public Project Agency improved the part of the Road, there has been little progress.

(2) FEGUA exclusive bus road: No progress

(3) Bus inspection and service center: The request for Japan's grant aid was submitted in 1997 but not adopted.

(FY 2001 Domestic Survey)

Out of the proposed projects, part of the one for the East-West Corridor was implemented financed by the Central American Bank for Economic Integration (BCIE). As for the development of public transportation, a new arterious route was constructed with the introduction of large buses and the bus networks were reorganized, based on the concept of the M/P of the study.

One of the unimplemented projects is the construction of exclusive bus lanes. The obstacles are as follows;

1) Lack of coordination with the reconstruction of FEGUA (railways)

2) Lack of prospects of financial source

To promote the project further, a policy change is necessary, from the one to focus on introducing new-type buses to the one to develop infrastructure and bus system at the same time.

(FY 2001 Overseas Survey)

1) Petapa Road: The traffic in the south part of the town was improved by the project. At present, as a part of road integration of this area, Atanasio Tzul Project is being integrated. Atanasio Tzul was planned as a busway along FEGUA Railroad.

2) FEGUA busway: Busway is not included in the extension road of Atanasio Tzul.

3) Bus Inspection and Service Center: No application has been submitted. 300 buses of 800 city transportation authority buses are in service. Operation application was planned for improvement of air quality and maintenance standards.

(FY 2002 Domestic Survey)

Out of 13 km of the proposed road construction project for the East-West Corridor, 8.3 km of the suburban part including a 300-meter bridge across Baranco Valley has been completed and placed in service.

(FY 2002 Overseas Survey)

Atanasio Tzul arterious road: Progress of the construction 90 %

South extra urban bus terminal (transfer station for long-distance routes): At the stage of planning. Operation is planned to be started in July 2003 (BOT scheme)

Urban exclusive bus lane (arterious road, South Corridor Aguilar Batres): At the stage of planning. Operation is planned to be started in July 2003 (BOT scheme)



# STUDY SUMMARY SHEET

## (M/P)

CSA GTM/A 109/02

<b>1. COUNTRY</b>	Guatemala		
<b>2. NAME OF STUDY</b>	Master Plan Study on Sustainable Rural Development for the Reduction of Poverty in the Central Highland Region of the Republic of Guatemala		
<b>3. SECTOR</b>	Agriculture / (Agriculture in) General		
<b>4. TYPE OF STUDY</b>	M/P		
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>		
	<b>PRESENT COUNTERPART AGENCY</b>		
<b>6. CONSULTANT(S)</b>	Nippon Koei Co., Ltd. Asia Air Survey Co., Ltd.		
<b>7. STUDY PERIOD</b>	Feb.2000 ~ Mar.2003 37month(s) ~		
<b>8. SITE OR AREA</b>			
<b>9. MAJOR PROPOSED PROJECT(S)</b>			
District / Project / Number of Beneficiaries / Project cost (1,000 GTQ)			
1) Xeatzan Bajo/program to promote sewn products manufacturing/200 households/258 GTQ			
2) Xeatzan Bajo/program to introduce program small-scale irrigation/80 households/808 GTQ			
3) Xeatzan Bajo/program to improve quality of drinking water/240 households/21 GTQ			
4) Panyevar/program to increase coffee production/72 households/132 GTQ			
5) Panyevar/program to introduce processing facilities to coffee production/80 households/132 GTQ			
6) Panyevar/program to rehabilitate drinking water facilities/301 households/599 GTQ			
7) Panyevar/program to improve quality of drinking water/301 households/41 GTQ			
8) Pachum/program to improve quality of stove range/promotion ofsauna (sweating-bath)/stove: 130 households, sauna: 40 households/kitchen range: 129 GTQ			
9) Palestina/program to improve Potatoes reservation system/210 households/16 GTQ			
10) Palestina/program to establish model farm for Potatoes production/210 households/14 GTQ			
11) Palestina/program to formulate immigrants control plan in southern region/200 households/320 GTQ			
12) Palestina/program to improve heath care service in municipalities/325 households/92 GTQ			
13)Palestina/program to improve quality of drinking water/106 households/145 GTQ			
Total 2,650 GTQ			

中部高原地域貧困緩和と持続的農村開発計画調査(及び実証調査)

<b>PRESENT STATUS</b>	In Progress or In Use
	Delayed
	Discontinued

**Description :**

(FY2003 Domestic Survey)(FY 2003 Overseas Survey)

Technical transfer has been conducted for each pilot project during the Study.

(FY 2004 Overseas Survey)

1. Palestina city in Altos Quetzaltenango, Quetzaltenango department

- 1) Potato storage: a silo for storage is continued to be used. Provision has been continued with a cooperation from ACTA.
- 2) Potato experimental plantation farm: Assist production of new potato species.
- 3) Small-sized irrigation: Palmilla district is requesting introduction of a irrigation system, which it is assisted by municipal.
- 4) Migration to coastal area: immigration to southern coastal area are still in progress. Plan sanitation improvement and prepare a training program on fertiliser usage and management.
- 5) Local health service: Opened Chemist in several location. Strengthened health development committee to provide diverse services.
- 6) Improvement of water quality for existing water supply system: Obvious improvement in community health. In addition it gave a huge impact on rural development. Water Supply Committee has acquired maintenance skills for purification/sterilisation equipments.

2. Pat'un village Santa Maria Chiquimula, Totonicapan department

- 1) Improved cooking stove: Although the improved cooking stoves are still used, number of people using the stove has not increased.
- 2) Temascales popularisation project: Improvement of a chimney and a boiler enabled acquire higher temperature.

3. Solola Department Panyebal village, Solola

- 1) Improvements of water supply system: water supply system is in normal operation. Assistance for follow and maintenance committee is planned due to increase in the number of users.
- 2) Improvement of coffee production: Management body has continuously working on institutional strengthening to increase income of the producers and are planning continuous implementation of the project.

4. Kusetsuan and Bafo village in Chimaltenango department, Chimaltenango

- 1) Revolving fund for hand spin yarn: Increase in income has been accomplished management institutions are planning for further activity for institutional strengthening, introduction of accounting management, assistance to accountant system, and publicising of information to executive committee.
- 2) Small-sized irrigation: training, opening of market, strengthening of institutions to effectively water resource use, conflict resolution between irrigation area and the committee, and distribution of duty to committee member is required for production expansion.
- 3) Improvement of existing water supply system: Patients of gastrointestinal disorder has decreased. Sterilisation and chlorine usage, management and observation by supervision of managing institution, and intervention of health authority of the department is planned.

(FY 2005 Domestic Survey)

No information to be specified.

(FY 2005 Overseas Survey)

Technical cooperation:

Dispatch of experts: 1 personnel, 2002/Sep - 2005/Oct

Beneficiary of technical cooperation through dispatch of agricultural policy experts is MAGA. This project aims to establish and review MAGA's agricultural policy, to determine the main strategy, and to give some advice regarding the indication of prioritised projects and programmes. Support for the staff and the Ministry of Agriculture and overseas cooperation project section played an effective role in promoting the cooperation projects that the Ministry requested from Japanese government in the past 3 years. The ministry is requesting Japanese government to continue technical cooperation, but it has not been determined.

# STUDY SUMMARY SHEET

## (M/P+F/S)

CSA GTM/S 221/02

<b>1. COUNTRY</b>	Guatemala		
<b>2. NAME OF STUDY</b>	The Study of National Tourism Development for the Republic of Guatemala		
<b>3. SECTOR</b>	Tourism / (Tourism in) General		
<b>4. TYPE OF STUDY</b>	M/P+F/S		
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>		
	<b>PRESENT COUNTERPART AGENCY</b>		
<b>6. CONSULTANT(S)</b>	Pacific Consultants International (PCI)		
<b>7. STUDY PERIOD</b>	Dec.2000 ~ Apr.2002 16month(s) ~		
<b>8. SITE OR AREA</b>			
<b>9. MAJOR PROPOSED PROJECT(S)</b>			
<p>1) Social development through tourism Introduction of village tourism, dissemination of cooperative management by local residents, local governments, and the central government, introduction of small-scale high quality hotels to rural areas, promotion of equal interaction between tourists and local residents.</p> <p>2) Appropriate management of sightseeing resources Improvement in use of archeological relics for sightseeing purposes, promotion of wise use of historical years, formation of an ecological corridor based on the green lodge program and introduction of visitors management system.</p> <p>3) Strengthening of competitiveness of the tourist industry Introduction of ecotourism certification system, introduction of a support system for small-scale tourist enterprises, improvement of travel environment, reinforcement of tourism advertisement, improvement of tourism administration .</p> <p>4) Peten Priority Tourism Development Regional Development Plan</p> <p>5) Verapaz Priority Tourism Development Regional Development Plan</p> <p>6) Southwest Tableland Priority Development Regional Development Plan</p>			

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

(FY 2003 Overseas Survey)

The following papers were prepared based on the studies under the support of San Carlos University, Faculty of Architecture.

- 1) Priority Tourism Development Region in Peten  
Improvement of El SEIBAL Archaeological Site for sightseeing purposes, improvement of SOYASSYE Local Culture Center, improvement of Dos Pilas Archaeological Site for sightseeing purposes.
- 2) Tourism Development Region in BERAPESESU  
Rehabilitation and regulation for use of the Historical Center and tourist hotels in KOBEN city.
- 3) Southwest Tableland Priority Tourism Development Regions  
KETTUARUTENAN: development of the Traditional Toy Museum and improvement of hot spring facilities in Zunil and TIKOBIKKUSU.  
TOTONIKAKAN: ponchos and exhibition shops for the Textile Museum, and hot spring baths and accommodations

(FY 2004 Domestic Survey)

No information to be specifically mentioned.

(FY 2004 Overseas Survey)

In order to start a tourism related project, which the concerned institution is to implement, negotiations will be conducted with FIS intending to conclude agreement in 2005.

(FY 2005 Domestic Survey)

No information to be specifically mentioned.

(FY 2005 Overseas Survey)

Construction of visitor centre has been conducted in Verapace region, supporting Semuc Champey project. In addition, through the cooperation program targeting 6 local entities, customer service and cookery training were conducted, as well as assisting in funds and equipment for infrastructure development (supported by international agencies and NGO).

In South-West region, assistance to Comite de Autogestion Turistica de Totonicapan comprising Momostenago were given.

Guatemalan tourist department financed 240 million GTQ to support a project to strengthen competitiveness of small or medium-sized corporation in the area of tourism. With its four pillars, skill training, technical assistance, accreditation of skills, financial assistance, the project has been implemented in Flores, Peten, Copan, Alta Verapace, Livingston, Izabal, Antigua Guatemala, Sacatepequez.

Subsequent project: Sustainable tourism development for Maya civilisation

Implementing period: 2002-2003

Implementing body: Consultant

Funding:

Funding party: INGUAT, USAID, (a program on sustainable tourism and French government

Objectives:

- To develop local communities and to establish tourist routes (focusing on tourist sites in Peten Department) in the area of Maya civilization
- To prepare technical survey report for reconstruction of Mundo Maya Airport
- To prepare technical survey report for reconstruction of Melchor de Mencos custom office
- To prepare technical survey report for reconstruction of Tikal visitor center

Relation with the report of the study:

While the JICA's study targets at the whole country, this study on Maya civilization targets only at Peten Department. However, the study on Maya civilization is to implement a strategy derived from the study by JICA as a base, aiming to promote tourism and social development with the participation of local people through Comite de Autogestion Turistica de Totonicapan.

Status:

The USAID has stated to support the project and is planning to dispatch a study team from December 2005 to January 2006. In addition, the financial support from the department of public financing under the Ministry of Finance is also expected. However, to receive such assistance, it is necessary to gain recognition from the Secretariat of Planning and Programming and approval from the Bank of Guatemala, and then to seek approval from the Diet.

4 subsequent pilot projects were conducted by the Ministries of Guatemala, assisted by foreign governments.

- a) Improvement of tourism conditions in Yaxha historic site (construction of access road and visitor center)
- b) Improvement of tourism conditions in Nakum historic site (restoration, securing of finance for the construction of access road and visitor center, preparing interpreters in archeological park, financing small amount of loans and human resource development for Comite de Autogestion Turistica de Totonicapan, formulation of a preservation area management plan and assistance to guards)
- c) Improvement of tourism conditions in Ceibal and Aguateca (restoration of stone monuments, restoration of models of historic sites, and reconstruction of visitor center which is planned to be implemented in 2006)
- d) Improvement of tourism conditions in Uaxactun (assistance for a local eco-tourism guide program, financial support for restaurants for tourists)

## STUDY SUMMARY SHEET (Basic Study)

CSA GTM/S 501/03

<b>1. COUNTRY</b>	Guatemala	
<b>2. NAME OF STUDY</b>	The Study for Establishment of Base Maps and Hazard Maps for GIS in the Republic of Guatemala	
<b>3. SECTOR</b>	Social Infrastructure / Survey & Mapping	
<b>4. TYPE OF STUDY</b>	Basic Study	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	IGN,INSIVUMEH,SEGEPLAN
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Kokusai Kogyo Co., Ltd.	
<b>7. STUDY PERIOD</b>	Jan.2001 ~ Sep.2003 32month(s) ~	
<b>8. SITE OR AREA</b>	Earthquake: Guatemala City, Quetzaltenango, Mazetanango, Escuintla, Puerto Barrios, Volcano: Santiaguito, Cerro Quemado, Pacaya, Tacana, Landslide: Guatemala City, Quetzaltenango, Antigua, Landslide (northwest region): El Quiche, Huehuetenango, San Marcos, Landslide (central region): Sacatepequez, Chimaltenango, Flood: Samala River basin, Acome River basin, Achiguate River basin, Maria Linda River basin	
<b>9. MAJOR PROPOSED PROJECT(S)</b>	Reginal disaster prevention plan	

GIS基盤地理情報整備及びハザードマップ作成計画調査

<b>PRESENT STATUS</b>	In Progress or In Use
	Delayed
	Discontinued

**Description :**

(FY 2004 Domestic Survey)

No information to be specifically mentioned..

(FY 2004 Overseas Survey)

1. In the survey, making a hazard map is under consideration, the work has been completed. In future, although we desire to take consideration of other important areas where has potentiality of being damaged by natural disasters, to implement it, capital is needed.
2. IGN has taken 10,000km<sup>2</sup> aviation photographs by its own found in 2003. Then in 2004, 4,100km<sup>2</sup> aviation photograph is being taken. Continuing digitalization of the scale of 1 to 50,000 basic maps and photographing the scale of 1 to 100,000 in other area.

(FY 2005 Domestic Survey)

Subsequent study: Field database improvement for hazard map preparation

Implementing period: January 2004 - 6th January 2006

Implementing body: INSIVUMEH

Objectives: 1) To gather new data in areas damaged by hydrologic and atmospheric phenomenon, such as hurricane, tropical shower, land slides, and flood. 2) To gather field data for hazard map preparation. 3) To improve and update the database acquired through field works of JICA study and for newly targeted regions.

Funding:

Funding party:: Japanese government and 5% of INSIVUMEH budget

Progress: 75%

Contents: Data gathering has been incorporated in FY 2004 activity. Information nad maps developed has been distributed to related regional municipality and institutions.

Technical cooperation:

Training:

Number of participants: 300 personnel

Implementing period: 19-20 June, 2003

Contents: Seminars for technical transfer on GIS system and hazard maps, Presentation on objectives, background, product, and software has been participated by CEDPRENAC, CDERA, and NIMA officials.

Dispatch of experts:

Number of personnel: 6

Dispatched period: In progress

Others:

- Skill training for the project
- Procedures of hazard map drawing (2001/Feb)
- Skills for interpretation of geographical photograph (2001/Jun)
- Analysis method for disaster history (2002/Jun)
- Examination of hazard map (2003/Jun)

Benefit:

Beneficiaries: City authority, CONRED, and other institutions concerned

Benefits: Municipalities in target area of the project now posses hazard map (in both paper and digital). In addition, CONRED has worked on with early warning system in the target area. Many of the institutions concerned including the road department and SEGEPLAN utilize the outcome of the project, for example by introducing the hazard map in their own development plans. JICA also used the project results for the study on the construction of a new airport in Masagua, Escuintla. In addition, the hazard map is released on the website of INSIVUMEH ([www.insivumeh.gob.gt](http://www.insivumeh.gob.gt)) so that it can be widely used among the public, and the images are also available free of charge. Furthermore, INSIVUMEH accepts inquiries from high school or university students at its office or on its website through the Internet ([www.insivumeh.gob.gt](http://www.insivumeh.gob.gt)).

Subsequent study: IGN modernisation

Implementing period: January 2006 - June 2007

Implementing body: IGN

Objective: To improve correspondence and implementation skills.

Funding:

Funding party: Own fund, Switzerland Grant Aid

Amount: 200 million USD, half of the amount from Grant Aid, and other half from low rate loans to procure equipments

Content:

First phase: Procurement of equipments (January 2006 - June 2006)

Second and third phase: contract and construction (January 2006 to August 2007)

Output: 1) Improvement of technical skills, 2) Also graphic for land registration map preparation

Progress:

1. Technical transfer concerning aerial triangulation, digital elevation model (DEM), contour drawing
2. Technical transfer concerning distortion correction of topographical survey and drawing ortho image map (Part 1)
3. Technical transfer concerning distortion correction of topographical survey and drawing ortho image map (Part 2)
4. Technical transfer concerning vectorization, correction mapping, and DEM creation.
5. Technical transfer concerning structuration and application of GIS data
6. Technical transfer concerning structuration and application (correction) of GIS data, and data conversion for printing
7. Technical transfer concerning legend and digital map editing (Part 1)
8. Technical transfer concerning legend and digital map editing (Part 2)

# STUDY SUMMARY SHEET

## (M/P+F/S)

CSA GTM/S 201/05

<b>1. COUNTRY</b>	Guatemala		
<b>2. NAME OF STUDY</b>	The study of the improvement/construction of the International Airport in the Republic of Guatemala		
<b>3. SECTOR</b>	Transportation / Air Transportation & Airport		
<b>4. TYPE OF STUDY</b>	M/P+F/S		
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>		
	<b>PRESENT COUNTERPART AGENCY</b>		
<b>6. CONSULTANT(S)</b>	Japan Airport Consultants, Inc. Nippon Koei Co., Ltd.		
<b>7. STUDY PERIOD</b>	May.2003 ~ Mar.2005 22month(s) ~		
<b>8. SITE OR AREA</b>			
<b>9. MAJOR PROPOSED PROJECT(S)</b>			

グアテマラ国国際空港改善・新設計画調査 (社会開発部)

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

(FY 2006 Domestic Survey)

The Guatemalan government announced that the current airport would be extended in August 2005, the last year of this study. The government has had a contract with ICAO since April 2006 and a reform construction has been resumed (40 million USD). On the other hand, the MCIV selected local companies to implement the Environmental Influence Assessment so as to acquire environmental license for a new international airport construction project. The study has been implemented and is still in process. However, once the improvements of the current airport are completed,



# STUDY SUMMARY SHEET

(F/S)

CSA HND/A 301/78

<b>1. COUNTRY</b>	Honduras	
<b>2. NAME OF STUDY</b>	Agricultural Development in the Choluteca River Basin	
<b>3. SECTOR</b>	Agriculture / (Agriculture in) General	
<b>4. TYPE OF STUDY</b>	F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Ministry of Natural Resources
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Nippon Koei Co., Ltd.	
<b>7. STUDY PERIOD</b>	Jul.1977 ~ May.1978 10month(s) ~	
<b>8. SITE OR AREA</b>	CHOLUTECA plan, southern part of Honduras	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>1.San Fernando Dam : concrete gravity dam, Height of dam 93.5m</p> <p>2.Irrigation Area(net): 16,000 ha(new 14,370ha, existing pumping 1,630ha)</p> <p>3.Irrigation Facilities :</p> <p style="padding-left: 20px;">Intake weir 1 place</p> <p style="padding-left: 20px;">Irrigation Canal 158km(Main 26.3km, Branch 46.5km)</p> <p style="padding-left: 20px;">Drainage Canal 144km(Main 121.9km, Secondary 22.5km)</p> <p style="padding-left: 20px;">Farm Road 122km</p> <p>4.Power Station: Installed capacity 14MW</p> <p style="padding-left: 40px;">Annual Power Generation 58.4GWh</p> <p>The project cost 1) is for the entire project and 2) for the 1st Stage(the dam and irrigation development of 12,400ha).</p>		

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

The project was suspended for a while after the completion of F/S.

## Subsequent Studies:

1984 F/S was updated by JICA

Aug.2.1985 L/A 1,651 mil.Yen

(Agricultural Development in the Choluteca River Basin E/S)

Dec.1985 -May 1988 D/D implemented

## Finance:

The request was submitted in March 1987 for an OECF loan, however, due to the high project cost, it was not accepted.

## (FY 1994 Domestic Survey)

The Structural Adjustment Program was initiated by the World Bank, which also made some comments on the environmental aspects of this project. In 1992 OECF implemented SAPROF and concluded that the project would not give any serious adverse impact on environment. The World Bank and the Government of Honduras are discussing about the implementation of the project.

Refer to "Choluteca River Basin Agricultural Development Project (Updating Study 1984 HND/A 302/84)".

# STUDY SUMMARY SHEET

(F/S)

CSA HND/S 301/79

<b>1. COUNTRY</b>	Honduras																														
<b>2. NAME OF STUDY</b>	New Tegucigalpa Airport Development																														
<b>3. SECTOR</b>	Transportation / Air Transportation & Airport																														
<b>4. TYPE OF STUDY</b>	F/S																														
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Directorate General of Civil Works, Min. of Communications, Public Works & Transport																													
	<b>PRESENT COUNTERPART AGENCY</b>																														
<b>6. CONSULTANT(S)</b>	Japan Airport Consultants, Inc.																														
<b>7. STUDY PERIOD</b>	Dec.1977 ~ Jul.1979 19month(s) ~																														
<b>8. SITE OR AREA</b>	Valle de Talanga, 60km north of Capital City																														
<b>9. MAJOR PROPOSED PROJECT(S)</b>																															
<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Facilities to be developed</th> <th style="text-align: left;">Size/quantity</th> <th></th> <th></th> </tr> </thead> <tbody> <tr> <td>- Runway</td> <td>2,700m x 45m</td> <td></td> <td></td> </tr> <tr> <td>- Apron</td> <td>69,100sq.m</td> <td></td> <td></td> </tr> <tr> <td>- Passenger Terminal Bldg.</td> <td>12,000sq.m</td> <td></td> <td></td> </tr> <tr> <td>- Airport lighting and radio nav aids</td> <td>CAT-I total system</td> <td></td> <td></td> </tr> <tr> <td>- Utilities (power, telephones water supply/sewerage)</td> <td></td> <td>Total system</td> <td></td> </tr> <tr> <td>- Access road</td> <td>45km x 75m</td> <td></td> <td></td> </tr> </tbody> </table>				Facilities to be developed	Size/quantity			- Runway	2,700m x 45m			- Apron	69,100sq.m			- Passenger Terminal Bldg.	12,000sq.m			- Airport lighting and radio nav aids	CAT-I total system			- Utilities (power, telephones water supply/sewerage)		Total system		- Access road	45km x 75m		
Facilities to be developed	Size/quantity																														
- Runway	2,700m x 45m																														
- Apron	69,100sq.m																														
- Passenger Terminal Bldg.	12,000sq.m																														
- Airport lighting and radio nav aids	CAT-I total system																														
- Utilities (power, telephones water supply/sewerage)		Total system																													
- Access road	45km x 75m																														

デグシガルパ新空港建設計画

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

(FY 1993 Overseas Survey)

Although the request for an OECF loan was approved, the object of spending of the loan was re-examined as the result of the change of the Government, and the loan was applied to other public investment. A research financed by Spain was conducted between 1987 and 1989, and concluded that the other proposed site was better sited than Talanga. To date, the other site has still been the most important candidate for the airport, and proposal are submitted from each of a British and a American engineering companies, and under appraisal of the Chamber of Commerce and Industry, SECOPT and Tegucigalpa city.

(FY 1994 Domestic Survey)

Anglo-American contractors consortium named Lehrer McGovern Bovis won a contract from Blivian Government to construct New Tegucigalpa Airport on the built-operate-transfer basis. the 3-year contract includes construction of a 3,500m-long runway and other facilities in the contract amount of US\$120 million.

(FY 1997 Domestic Survey)

Implementation of project would be difficult because it is said that cost for construction of new airport is more than 10bil.yen.  
BOT project seems to have no progress.

# STUDY SUMMARY SHEET

## (Basic Study)

CSA HND/A 501/83

<b>1. COUNTRY</b>	Honduras	
<b>2. NAME OF STUDY</b>	Inventario Forestal del Distrito Forestal de La Mosquitia	
<b>3. SECTOR</b>	Forestry / Forestry & Forest Conservation	
<b>4. TYPE OF STUDY</b>	Basic Study	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Forest Development Corporation of the Republic of Honduras
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Japan Forest Technical Association	
<b>7. STUDY PERIOD</b>	Dec.1980 ~ Mar.1983 27month(s) ~	
<b>8. SITE OR AREA</b>	An area of 2,000 sq.km in Mosquitia District, Gracias A Dios Province	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>In order to utilize Caribbean pines in the subject area, a forest management plan was proposed containing following components:</p> <ul style="list-style-type: none"> <li>-Countermeasures against forest fires</li> <li>-Improvement of forest road network</li> <li>-To enlarge natural regeneration and re-afforestation</li> <li>-To increase the timber production</li> </ul>		

ラ・モスキチア地区林業資源調査

<b>PRESENT STATUS</b>	<p>In Progress or In Use</p> <p>Delayed</p> <p>Discontinued</p>
<p><b>Description :</b></p> <p>Utilization of the Study: (FY 1993 Overseas Survey) The results of this study such as the aerial photographs, the topographic maps, forest type maps, etc., are used by the authorities concerned. In recent years the Government of Germany implemented a technical cooperation project using this forest management plan. At the donor conference held in 1989, the Government of Germany showed the interest in implementation of Forest management and Reserve protection project of Rio Platano. F/S for [Proyecto de manejo y Proteccion de la Reserva de la Biosfera del Rio Platano] has been completed and the agency is now negotiating with GTZ and KFW for the implementation of the project.</p> <p>Situation: Application of the Grant Aid for the implementation of sawlumber project was made in 1983 however the application was not approved. Wood chips production project near Nicaragua border was intended in 1986 but it was not implemented.</p> <p>(FY 1996 Overseas Survey) Because more than ten years have passed since the completion of this Study, the renovation of outputs is necessary. The Government of Honduras, however, has no fund to allocate to it or have no concrete national forest plan.</p> <p>(FY 1997 Overseas FU Survey) Finance: Lps 12 mil. in 15 years The investment made by AFE-COHDEFOR (Corporacion Hondurena de Desarrollo Forestal) in 1997 was more than \$ 100,000 less than that of 1983.</p> <p>Situation of Progress: 1. Wood utilization Out of 240,000 feet of sawed wood per year recommended, 37.0% was achieved.(89,000 ft/year) 2. Forest Road 57 km were built, which represents a 48.6% of the programmed 130.3 km. 3. Forest Protection Fire Fence - 115km of fire fences (12% of recommendation) were built. Fire detection towers - In addition to the existing 5 towers, construction of 10 towers was recommended, of which 1 was constructed and is in use. Fire Control - Reduction of burned areas by fires in a 43.0% of the identified area in 1983.</p> <p>In general, application level of the recommended measures is not superior to 20% of the five-year planned goals of the inventory.</p> <p>Currently the private development institute (MOPAWI) is doing management in more than 3,000 hectares of the Dursura forest supported by VIDA foundation, WWF of Germany and the Tear Fund of Canada.</p> <p>Causes for the unaccomplishment: -Lack of political clarity, related to the kind of management that should be keeled on the zone, if as a protected zone of the Rio Platano Biosphere reserve or as a forest production zone -Refugees presence and armed civil groups from Nicaragua -Occupational personnel instability, due to the difficult condition of the zone such as accessibility, housing and nourishment -Nonexistence of sectorial politics which are responsible for integrating the zone in a national development plan -The limited public diffusion provided by the information about the management plan</p>	

## STUDY SUMMARY SHEET (Basic Study)

CSA HND/A 502/83

<b>1. COUNTRY</b>	Honduras	
<b>2. NAME OF STUDY</b>	Fisheries Resources Survey	
<b>3. SECTOR</b>	Fishery / Fishery	
<b>4. TYPE OF STUDY</b>	Basic Study	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Bureau of Rehabilitation, Ministry of Natural Resources; Fishery Section, Economic Planning Agency
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>		
<b>7. STUDY PERIOD</b>	Jun.1981 ~ Mar.1983 21month(s) ~	
<b>8. SITE OR AREA</b>	From Torujillo to Puerto Cortes, North sea-shore of Honduras	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<ul style="list-style-type: none"> <li>- Fishing port is necessary between Tela and La Ceiba.</li> <li>- It is necessary to improve the distribution system.</li> <li>- Under the proper condition of distribution, fishing base, etc., bottom gillnet, shark long line, trawl fishing are useful for marine resource development.</li> </ul>		

<b>PRESENT STATUS</b>	In Progress or In Use
	Delayed
	Discontinued

**Description :**

## Utilization of the Study:

(FY 1993 Overseas Survey)

Among recommendations of the study, improvement of long line fishery of shark was not implemented because of low economic value of shark, Fish harbour improvement and commercialization of products are implemented at several locations of Atlantic sea coast utilizing JICA Mini Project at Trujillo as a model project. The agency is planning to initiate small scale fishery development project at La Mosquitia, province of Gracias a Dios, however lack of social infrastructure such as road and communication system causes difficulty for the implementation of the project.

## Situation:

(FY 1991 Overseas Survey)

The Ministry of Natural Resources is requesting Japanese assistance for similar studies in other areas (Cortes, Atrantida, Colon, Bahia islands, Gracias a Dios).

(FY 1995 Overseas Survey)

Trying to materialize the modernization of the fishing port of Trujillo as a mini-project to make it the basement to carry on new test and investigations at the Carribean Sea Coast.

The Master Plan Study on Small Scale Fisheries Development Project on the North Coast of The Republic of Honduras is being implemented from December 1995.

(FY 1996 Overseas Survey)

It is desired to conduct a study on the impact of fish catchment, the regional and seasonal resource availability, the lifecycle and fish behavior in order to renew this Study result.



# STUDY SUMMARY SHEET

(F/S)

CSA HND/A 302/84

<b>1. COUNTRY</b>	Honduras	
<b>2. NAME OF STUDY</b>	Choluteca River Basin Agricultural Development Project (Updating Study)	
<b>3. SECTOR</b>	Agriculture / (Agriculture in) General	
<b>4. TYPE OF STUDY</b>	F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Ministry of Natural Resources
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Nippon Koei Co., Ltd.	
<b>7. STUDY PERIOD</b>	Aug.1984 ~ Mar.1985 7month(s) ~	
<b>8. SITE OR AREA</b>	CHOLUTECA plain, southern part of Honduras (Investigated Area 36,000ha,population 22,600person)	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>1. San Fernando Dam:Concrete gravity, dam height 100m, crest length 320m</p> <p>2. Irrigation Area:20,600ha(Western Area 16,000ha, East-A Area 4,600ha)</p> <p>3. Irrigation Facilities</p> <p style="margin-left: 20px;">1 intake weir(concrete type, weir height 4.8m, crest length 140m)</p> <p style="margin-left: 20px;">Main canals 30.6km(Western Area 23.6km, East-A Area 7.0km)</p> <p style="margin-left: 20px;">Branch canals 75.5km(Western Area 45.2km, East-A Area 30.3km)</p> <p style="margin-left: 20px;">Secondary canals 33.6km(Western Area only)</p> <p style="margin-left: 20px;">Main Drainage canals 113.0km(W.Area 90.5km, E.-A Area 22.5km)</p> <p style="margin-left: 20px;">Secondary drainage canals 27.0km(Western Area only)</p> <p>4. Power Plant:Installed Cap. 18.2MW, Annual Output 53.6GWh</p> <p>*The project cost 1) above is for the entire project, and 2) for the 1st Stage(Dam &amp; Power plant and irrigation dev. of Western Area)</p> <p>*The implementation period below pertains to the 1st Stage of the project.</p>		

チヨルテカ川流域農業開発計画補完調査

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

\*Refer to "Agricultural Development in the Choluteca River Basin (1978)".

## Subsequent Studies:

Dec.1985 -May 1988 D/D (Consulting firm/Nippon Koei Co., Ltd.)

Aug.1985 L/A 1,651 mil.Yen (E/S)

## Finance:

The request was submitted in March 1987 for an OECF loan, however, due to the high project cost, it was not accepted.

## Detail:

(FY 1993 Overseas Survey)

After the completion of D/D funded by the OECF loan, the World Bank, which had been promoting the Structural Adjustment Program in Honduras, reviewed various development studies implemented there. Concerning this project, the World Bank made several recommendations for the environment protection and for the reduction of the project cost. As a response to those recommendations, OECF conducted SAPROF study, however, since then, no progress has been made to implement the project.

(FY 1994 Overseas Survey)

No problem was found by SAPROF conducted in 1992, to implement the project. After that negotiation is being held between the World Bank and Honduras.

(FY 1997 Overseas FU Survey)

## Causes for Suspension:

The financial constraint such as allocation of a large amount of money to another priority project (El Cajon Hydroelectric Project) and existence of external debt is main cause. After the change of regime, priority to this project has been lowered.

Moreover, the lack of clear policy of water resources management, appropriate legal framework for irrigation and multipurpose water use development, and intersectoral coordination framework has caused the delay.

## Perspective for Implementation:

There is a low possibility to implement the project. However, hydroelectric generation and agricultural development are important because there is a growing interest in irrigation schemes and increasing demand for energy. To promote the implementation, participation of private sector and review of F/S in accordance with a new natural resources management policy are necessary.

(FY 1998 Domestic Survey)

There is little possibility to implement the projects by Japanese ODA.

# STUDY SUMMARY SHEET

(F/S)

CSA HND/A 303/85

<b>1. COUNTRY</b>	Honduras	
<b>2. NAME OF STUDY</b>	Aguan Valley Agricultural Development Project (Saba-Olanchito Area)	
<b>3. SECTOR</b>	Agriculture / (Agriculture in) General	
<b>4. TYPE OF STUDY</b>	F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	National Agrarian Institute
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Pacific Consultants International (PCI)	
<b>7. STUDY PERIOD</b>	Feb.1984 ~ Jun.1985 16month(s) ~	
<b>8. SITE OR AREA</b>	Yoco, Aguan Central Valley(Saba-Oranchito) 188,000 people, 200km from capital, 23,000ha	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>For the purpose of the promotion of agrarian reform programs, the increase of agricultural production for export, the generation of new job opportunities, the rationalized distribution of population and etc, the Lower Aguan Project has been carried out since 1971 at the Aguan Valley located in the north part of the Honduras.</p> <p>Considering the importance of the continuous development of the Valley, the agricultural development project for the Middle Aguan was planned as shown below:</p> <p>Land Reclamation: 9,100ha (double-cropping 1,600ha, semi-annual cropping 4,800ha, Fruit growing and others 2,700ha)</p> <p>Irrigation Facilities (Maximum water requirement 4.1 m<sup>3</sup>/s)</p> <p>Head works : 4</p> <p>Siphon : River crossing 1, other 41</p> <p>Pumping Station : 2(capacity 2.1 m<sup>3</sup>/s, 0.4 m<sup>3</sup>/s)</p> <p>Irrigation canal : Main 73.7 km, secondary 81.0 km</p> <p>Related Structures : 213</p> <p>Drainage Facilities (Proposed discharge 15.2 m<sup>3</sup>/s)</p> <p>Drainage Canal : 64.6km</p> <p>Drop Works : 90</p> <p>Transportation Facilities</p> <p>Main Farm Road : 82.0km</p> <p>Blanch Farm Road : 120.7km</p> <p>Bridge : 82</p>		

アグアノ川流域農業開発計画

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

After the completion of F/S, the economic situation of the country was worsened, foreign debt was accumulated. The other project (Choluteca River Basin Agricultural Development) was suspended after the D/D, and there has been no progress regarding this project.

## Reasons for Cancellation:

(FY1993 Overseas Survey)

Since the study was conducted, no effort for financing of the project implementation has been made. Reasons why the project is cancelled are

- (1) huge project cost;
- (2) no financial arrangement is planned; and
- (3) allocation of government budget is getting difficult due to the Structural Adjustment Programme.

Moreover, situation of the project site has been changed and beneficiary farmers of the project site sold their farm land to Standard Fruit Corporation.

## STUDY SUMMARY SHEET (Basic Study)

CSA HND/S 501/89

<b>1. COUNTRY</b>	Honduras	
<b>2. NAME OF STUDY</b>	Groundwater Development Project in Comayagua	
<b>3. SECTOR</b>	Social Infrastructure / Water Resources Development	
<b>4. TYPE OF STUDY</b>	Basic Study	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Ministry of Public Health
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Nippon Koei Co., Ltd.	
<b>7. STUDY PERIOD</b>	Feb.1988 ~ Oct.1989 20month(s) ~	
<b>8. SITE OR AREA</b>	Comayagua Basin (Municipality Comayagua & La Paz)	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>The Final Report recommended that the project should be implemented in stages, and by the end of the second stages, of which the target year is 1996, 60 units of the type 1 and 22 units of the type 3 should be constructed as the rural water supply system.</p>		

コマヤグア県地下水開発計画

<b>PRESENT STATUS</b>	In Progress or In Use
	Delayed
	Discontinued

**Description :**

In November 1989 the Government of Honduras made a second request for the Japanese grant aid.

Subsequent Studies:

Mar.1990 B/D

(1)Phase I

Subsequent Studies:

Jul.1990 D/D

Finance:

28 Jun.1990 Grant Aid E/N, no more than 1,108 mil.Yen for digging of 53 wells and construction of water supply facilities

Construction:

Feb.1992 Completed

(2)Phase II

Subsequent Studies:

Aug.1991 D/D

Finance:

9 Jul.1991 Grant Aid E/N, no more than 394 mil.Yen for digging of 36 wells and construction of water supply facilities

Construction:

Jul.1992 Completed

Total project cost of Phase I and II was 1,529 mil. Yen, 1,502 mil. Yen of which was financed by the Japanese grant aid and 270 mil. Yen was the own fund of the Government of Honduras.

(3)Phase III-1

Subsequent Studies:

Feb.1988~Oct.1989 D/D (JICA 20 mil.Yen 1&2)

Finance:

Dec.1993 Grant Aid E/N, no more than 520 mil.Yen (Local Cost: equivalent to 50 mil.Yen, budget of Ministry of Public Health) for digging of 200 wells and construction of water supply facilities: 30wells in Phase III-1, 30 wells in Phase III-2 and 140 wells to be constructed with the government fund.

Construction:

Dec.1994 Commenced Mar.1995 Completed

(4)Phase III-2

Subsequent Studies:

Feb.1988~Oct.1989 D/D (JICA 20 mil.Yen 1&2)

Finance:

26 Jul.1994 Grant Aid E/N 205 mil.Yen

(Own fund:1,174,705Lp/year)

(Local Cost: equivalent to 50mil.Yen, budget of Ministry of Public Health)

Construction:

Apr.1995 Commenced Dec.1998 Completed

Construction Trader:Itochu

Situation:

(FY 1996 Domestic Survey)

In Phase III, a total of 105 wells was constructed by Mar.1996 (64 wells with grant aid assistance and 45 wells with local fund (21 constructed between Aug. and Dec.1995 and 20 constructed between Jan. and Mar.1996). Because problems about the maintenance and operation of machinery arose, the Government of Honduras again submitted a request for grant aid assistance (1,500 mil.Yen). The Government of Honduras is supposed to undertake the remaining construction works of uncompleted wells. However, the change of the president in Dec.1996 and the own-out machinery may become an impediment of the project.

Effect:

A total of 154 wells (53 in Phase I, 36 in Phase II, 30 in Phase III (1) and 34 in Phase III (2)) have been constructed since 1990. It contributes to the well-being of residents, the social stability and the strength of Water Users Associations. The rate of water supply has improved from 20% to 60%.

Impact on surrounding Environment:

-Higher demand on the well digging and the well improvement

-Participation of municipality governments in the decision making process about places where wells are to be constructed and in their construction

-Consensus among residents concerning the project implementation

-Enlargement of water supply area in the Area 2

-Change in the traditional way of water usage and water consumption

(FY 1996 Overseas Survey)



<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

The request for the Japanese grant aid submitted in December 1991 was not approved.

## Subsequent Studies:

1991 Implemented

Expenses/40,713,010Lp. , 17,313,494US\$

## Finance:

Dec.1992 A loan from Kuwait Fund was secured

Total Amount/US\$ 29.09 mil.

(US\$ 16.45 mil. for the Dam Rehabilitation, US\$ 8.46 mil. for the Irrigation Project and US\$ 4.18 mil. for miscellaneous)

The government fund was also secured

Total Amount/11.55 mil. Lempira

(7.66 mil. Lempira for the Dam Rehabilitation, 3.89 mil. Lempira for the Irrigation Project)

## Difference with the JICA Study:

Installation of 2MW hydropower station

## Construction:

(FY 1995 Overseas Survey)

The Coyolar Dam has been developed into the multi-purpose dam. The total construction cost is US\$ 20.7 mil. for foreign currency and 18.59 mil. Lempira for local currency.

(FY 1996 Overseas Survey)

Jun.1993 Commenced (Scheduled to be completed by Dec.1998)

(FY 1997 Domestic Survey)

Mar.1995~May.1996

Contractor / ASTALDI (Italia)

Consulting Firm / CINSA (Honduras)

Cost / 8.2 mil.US\$

## Administration:

(FY 1997 Overseas FU Survey)

The project is administrated and handled by Coordinate Unit of the Project El Coyolar, property to the Direction of Water Resources of the Secretary of Natural Resources and Environment.

The handling of the basin is realized by AFE-COHDEFOR in cooperation with the farmers of the District of the Flores, Villa de San Antonio and surroundings.

## Effect:

The valley of Comayagua supplies an excellent contribution to the agriculture sector of Honduras, especially in the production of vegetables. Vegetables are supplied to the national market and also exported to United States and surrounding countries.

With the rehabilitation of the dam, a very important source of water for irrigation in the district of Flores and Villa de San Francisco, 11% and 19% of land that is not cultivated by the lack of water during the season of rain and dry, has been recuperated.

With the production, the standard of living of the farmers can be bettered avoiding the migration to the cities.

## Situation:

(FY 1997 Overseas Survey)(FY 1999 Overseas Survey)

Stage I (Rehabilitation of the Coyolar Dam): 1995~1996.

Stage II (New irrigation system): completed.

Stage III (Small-scale hydropower generation plant (2Mw)): 1999 ~ Mar. 2000.

Stage IV (construction of administrative building and other constructions and a demonstration farm): 1998 ~ 1999.



# STUDY SUMMARY SHEET

## (M/P)

CSA HND/S 102/92

<b>1. COUNTRY</b>	Honduras																	
<b>2. NAME OF STUDY</b>	Rural Telecommunications Network Project																	
<b>3. SECTOR</b>	Communications & Broadcasting / Telecommunication																	
<b>4. TYPE OF STUDY</b>	M/P																	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Empresa Hondurena de Telecomunicaciones (HONDUTEL) Development Division																
	<b>PRESENT COUNTERPART AGENCY</b>																	
<b>6. CONSULTANT(S)</b>	NTT International Corporation																	
<b>7. STUDY PERIOD</b>	Dec.1991 ~ Nov.1992 11month(s) ~																	
<b>8. SITE OR AREA</b>	223rural community areas scattering around the whole country of Honduras																	
<b>9. MAJOR PROPOSED PROJECT(S)</b>																		
<p>The main content of the project is to increase the telephone penetration ratio per 100 inhabitants in the subject areas from 1.19 to 1.66 by providing 12,090 telephone lines until the year 2002.</p> <p>Phase-1 (1994-1997)</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 80%;">1) New telephone exchange stations</td> <td style="text-align: right;">12 Stations</td> </tr> <tr> <td>2) Optical Fiber Cable Transmission System</td> <td style="text-align: right;">12 Sections</td> </tr> <tr> <td>3) Digital Multi Access System</td> <td style="text-align: right;">4 Systems</td> </tr> <tr> <td>4) Subscriber lines</td> <td style="text-align: right;">15,670 Pair x Kms</td> </tr> </table> <p>Phase-1 (1997-2000)</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 80%;">1) New telephone exchange stations</td> <td style="text-align: right;">6 Stations</td> </tr> <tr> <td>2) Optical Fiber Cable Transmission System</td> <td style="text-align: right;">6 Sections</td> </tr> <tr> <td>3) Digital Multi Access System</td> <td style="text-align: right;">6 Systems</td> </tr> <tr> <td>4) Subscriber lines</td> <td style="text-align: right;">14,850 Pair x Kms</td> </tr> </table>			1) New telephone exchange stations	12 Stations	2) Optical Fiber Cable Transmission System	12 Sections	3) Digital Multi Access System	4 Systems	4) Subscriber lines	15,670 Pair x Kms	1) New telephone exchange stations	6 Stations	2) Optical Fiber Cable Transmission System	6 Sections	3) Digital Multi Access System	6 Systems	4) Subscriber lines	14,850 Pair x Kms
1) New telephone exchange stations	12 Stations																	
2) Optical Fiber Cable Transmission System	12 Sections																	
3) Digital Multi Access System	4 Systems																	
4) Subscriber lines	15,670 Pair x Kms																	
1) New telephone exchange stations	6 Stations																	
2) Optical Fiber Cable Transmission System	6 Sections																	
3) Digital Multi Access System	6 Systems																	
4) Subscriber lines	14,850 Pair x Kms																	

<b>PRESENT STATUS</b>	<p>In Progress or In Use</p> <p>Delayed</p> <p>Discontinued</p>
-----------------------	---

**Description :**

## Reasons of Cancellation:

(FY 1994 Domestic Survey)

This project was discontinued because the American firm, AT&T, started providing the exchanges to main towns and villages holding a mortgage on the change for international call.

## Situation before Cancellation:

The Government of Honduras has given high priority to developing a telecommunications network because it is indispensable for social and economic development. The state-owned enterprise responsible for telecommunications services in Honduras (HONDUTEL) also has made great efforts to expand telephone services in rural areas. However, HONDUTEL cannot afford to set up telephone services in rural areas because of technical and financial difficulties. As the economy in Honduras depends on primary products, development of primary industries is of vital importance for the nation. However, there is a great difference in the standard of living between rural areas and urban areas. The government, therefore, is actively promoting the development of rural areas.

## 1. Feasibility Study on Telecommunications Network Expansion Project

No request was submitted in FY 1993 on F/S by HONDUTEL and Ministry of Planning.

## 2. Rural Telecommunications Network Expansion Project

The proposed project had been revised thoroughly by the technical planning department of HONDUTEL by October 1993.

The proposal of the revised plan is to provide 7227 lines for 17 prefectures (212 districts). The project divides the country into four regions (Southeast, Northwest, Midwest and North) and is implemented as four sub-projects.

## \*South-East project

Under implementation (ECU 2.9 mil. Grant from EC and ECU 2.059 mil. domestic fund). It is scheduled to provide 1,511 lines to three prefectures (49 districts).

## \*Other 3 Projects

As for other sub-projects, requests for grants or long-term soft loans have been made to Japan, Mexico, Canada, and international organizations.

# STUDY SUMMARY SHEET

## (M/P+F/S)

CSA HND/S 213/93

<b>1. COUNTRY</b>	Honduras		
<b>2. NAME OF STUDY</b>	Erosion and Sediment Control in the Pilot River Basin, Choloma, San Pedro Sula, Cortes		
<b>3. SECTOR</b>	Social Infrastructure / River & Erosion Control		
<b>4. TYPE OF STUDY</b>	M/P+F/S		
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Ministry of Communications, Public Works and Transportation(SECOPT)	
	<b>PRESENT COUNTERPART AGENCY</b>	SOPTRAVI	
<b>6. CONSULTANT(S)</b>	Pacific Consultants International (PCI) Kokusai Kogyo Co., Ltd.		
<b>7. STUDY PERIOD</b>	Aug.1992 ~ Jan.1994 17month(s) ~		
<b>8. SITE OR AREA</b>	North-western area of Sula Valley (717km <sup>2</sup> )		
<b>9. MAJOR PROPOSED PROJECT(S)</b>			
<p>The Master plan for flood control and sediment control was formulated with the design scale of 50 year flood and recorded maximum sediment disaster in 1974 respectively.</p> <p>1)Choloma River -River improvement 7.8km, embankment 15.6km etc -Check dam 10nos, Consolidation dam 17nos., training levee 1.3km</p> <p>2)El Sauce River/Blanco River -River improvement 7.5km, Diversion channel 2.6km, embankment 19.7km etc -Check dam 23nos., Consolidation dam 7nos., training levee 4.0km channel works 3 places.</p>			

チャメレコン川流域治水・砂防計画調査

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

Among the master plan of the Choloma river, following urgent plan was formulated by the feasibility study.

Urgent Plan of the Choloma River :

Total cost : US\$22,890 X 1,000

F/C : US\$14,197 X 1,000

L/C : US\$ 8,693 X 1,000

-River improvement 3.4km, embankment 6.9km, revetment 3.4km etc

-Check dam 2nos., consolidation dam 2nos., training levee 1no.

-Replacement of railway bridges

The urgent plan of this project covers an area of 712 km<sup>2</sup> including river basin of Choloma, San Pedro Sula and Cortes conforming an industrial center of the country with a total population of approximately 330,000.

Situation:

(FY 1995 Overseas Survey)

This project is now providing to commence the implementation on 1995 and planned to complete on 1997, however, there is no progress due to the difficulty to find the financing.

(FY 1996 Overseas Survey)

The Government of Honduras requested the JICA's grant aid to the Government of Japan for implementation of the above urgent plan.

(1)Improvement of the hydrologic information system

(FY 1997 Overseas FU Survey)

11 pluviometers donated by the study team were installed in the area of study, San Pedro Sula, Valle de Sula in 1996. They are under administration of Municipal Division of Waters(DIMA) and SERNA(Secretary of Natural Resources and Environment).

(2)Elaboration of Maps of Risk

(FY 1997 Overseas FU Survey)

Financial Source/National funds

Administration and Handling/Copeco

Year/1994

(3)Canalization of the Choloma River

(FY 1997 Overseas FU Survey)

Scale/ 8 km of length and 60 m of width in average

Financial Source/External Funds

Amount/US\$ 100,000

Implementing Organ/Executive Commission of Valle de Sula

Year/1995

(4)Construction of Consolidation Reservoir in the Choloma River

(FY 1997 Overseas FU Survey)

Amount/ US\$ 100,000

Implementing Organ/Executive Commission of Valle de Sula

Year/1996

(5) Choloma River Check Dam Construction

(FY 1998 Domestic Survey)

Period: Oct. 1998 ~ Feb. 2001

Contractor: Hazama

(FY 2000 Domestic Survey)

Sabo works in the upstream reaches from Choloma City, which are the 1st stage implementation, have been completed in October 2000. The 2nd stage implementation of the river improvement works in the downstream reaches from Choloma City has been started and will be finished by March 2001.

(6)Alarm System

(FY 1997 Overseas FU Survey)

Finance/External Funds Amount/ US\$ 5,000/year

Administration and Handling/Copeco

Year/1990~1997

(7)Urgent Plan

(FY 1997 Overseas FU Survey)

Subsequent Study:

Based on the result of the basic study conducted by JICA, detailed design study is being undertaken.

Finance: Jan.20.1998 E/N 60 mil.yen (Flood Control and Sabo in Choloma River)

Construction:

2000 scheduled to be completed

(FY 1999 Domestic Survey)

Finance:

15 Jun.1999 E/N 587mil.yen

(FY 1999 Domestic Survey)

Construction: Construction of the Choloma water transmission weir was started at the end of 1999.

## STUDY SUMMARY SHEET (M/P+F/S)

CSA HND/S 214/93

<b>1. COUNTRY</b>	Honduras	
<b>2. NAME OF STUDY</b>	Improvement of the Ports	
<b>3. SECTOR</b>	Transportation / Port	
<b>4. TYPE OF STUDY</b>	M/P+F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Empresa Nacional Portuaria(ENP)
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	The Overseas Coastal Area Development Institute (OCDI) Nippon Koei Co., Ltd.	
<b>7. STUDY PERIOD</b>	Jan.1993 ~ Mar.1994 14month(s) ~	
<b>8. SITE OR AREA</b>	Major ports in Honduras	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
1.Ports Development and Management Strategy. 2.Development plan for Port of Cortes. 3.Management plan for Port of Cortes. 4.Urgent Improvement plan for major ports.		

港湾改善計画調査

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

(FY 1994 Domestic Survey)

The development plan proposed by this study has three steps as follows.

(FY 1995 Overseas Survey)

It will be settled the medium term plan during 1996 to 1999 for the whole tasks of the improvement of the ports.

(FY 1999 Overseas Survey)

"Development Plan for 21st Century" was formulated in 1998, where the investment for the port infrastructure was proposed. Based on the proposals of this Study, the following projects were planned: Cortes Port cargo terminal (2000~2001), Cortes Port dry grain terminal (2000), Castilla second wharf(75m)(2000), Lempira concrete wharf (50m)(2001).

(1)Urgent improvement of ports and harbors

The improvement works of civil facilities and loading/discharging facilities which should be treated as the daily maintenance, and the improvement of management of port have been completed or processing with the responsibility of the port manager.

Construction in Progress:

(FY 1996 Overseas Survey)

May.1995~May.1997 Construction of wharf in Port of Cortes

Construction Trader/COTIZAR

(FY 1997 Overseas FU Survey)

<Administration>

As a consequence of modification in the laydays prices, the shipowners will not lay the ships more than necessary. Moreover, efficiency improvement in cargo handling and reduction of labor work accidents have been achieved.

On the other hand, the cut of working hours resulted from introduction of two shift basis, caused the decrease of salaries of workers, then the government had compensated the salaries.

The decentralization of ENP is being discussed in Congress.

Concession period / 25 years

<Urgent Rehabilitation>

Equipments of importance, with durability and which require low investment cost and are simple to repair will be rehabilitated firstly.

(FY 1999 Overseas Survey)

Five container ships were acquired. No.1 crane, P&H crane, dredger, tag boat, chassis were rehabilitated. Radio communications at the container terminal of Cortes Port was improved.

Inspection/control of the ships going through the Cortes Port No.11 gate was strengthened, Protector of the wharf of Castilla Port was renewed. Cortes Port No.4 wharf was renewed. Yard of Cortes Port and Castilla Port was improved.

(2)Development Plan for Port of Cortes (short-term: target year of 2000; long-term: target year of 2010)

(FY 1996 Overseas Survey)

Subsequent Studies:

Jan.~Jun.1996 Scheduled to be implemented by ENP

Finance:

Finance source is to be determined in 1998

Content:Construction of a new container terminal

Construction:

1998 Scheduled to be commenced

(FY 1997 Overseas FU Survey)

<Construction of basic infrastructure>

(3 unit load berths, dry bulk load terminal, refrigerating warehouse terminal, cabotage terminal, alternative route)

Finance:

ENP US\$ 7 mil. (total expenses up to present)

Situation of Progress:

1.Refrigerating Warehouse Terminal

Financial sources / Spanish government and BCIE

Total amount / US\$ 11.75 mil.

Constructed and in operation

2.Terminal Unit

Urgent projects are not started yet because ENP is waiting for decision making by the government on the privatization (maintenance and expansion of public facilities).

Urgent project cost / 28,948.9 Ls (47.5% for construction of unit)

3.Cabotage Terminal

Cabotage terminal was constructed in East Free Zone at Cortes Port. - "L" shaped, 200m in length, 4.5m in depth (scaled-down due to the financial constraint)

Completed in 1997 cost / US\$ 1.5 mil.

Mitigation of congestion of general berth and efficiency improvement of cargo handling were achieved.

Extension up to 200m is planned.

4.Coastal Traffic Jetty (La Ceiba)

Completed in 1994 cost / US\$ 5.6 mil.

5.Alternative Route (Stage 1)

Road from the Laguna Bridge to Cortes Port cabotage terminal was completed in 1999 (660m in length, 12m in width). Breakwater was also constructed.

The project contributes not only to the mitigation of traffic jam in Puerto Cortes city but also to tourism development improving the landscape.

The new road (850m) from the cabotage wharf to the new container terminal is to be constructed in 2000.

# STUDY SUMMARY SHEET

(F/S)

CSA HND/A 305/94

<b>1. COUNTRY</b>	Honduras				
<b>2. NAME OF STUDY</b>	Irrigated Agricultural Development Project in Jesus de Otoro, Intibuca Department				
<b>3. SECTOR</b>	Agriculture / Irrigation, Drainage & Reclamation				
<b>4. TYPE OF STUDY</b>	F/S				
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Directorate General of Water Resources, Ministry of Natural Resources			
	<b>PRESENT COUNTERPART AGENCY</b>				
<b>6. CONSULTANT(S)</b>	Kokusai Kogyo Co., Ltd. Naigai Engineering Co., Ltd.				
<b>7. STUDY PERIOD</b>	Sep.1992 ~ Feb.1994 17month(s) ~				
<b>8. SITE OR AREA</b>	Jesus de Otoro Basin, Intibuca Department, Honduras (with an area of approx.7,500ha and an estimated population of 16,300)				
<b>9. MAJOR PROPOSED PROJECT(S)</b>					
1)Plan of Irrigation and Drainage:					
	Area of Development	Trunk canal	Branch cana	Administrative Rural road	EIRR
	(ha)	(km)	(km)	(km)	(%)
Left bank of Otro	950	11.5	20.3	32.7	13.2
Right bank of Otro	284	6.6	4.9	11.7	7.7
Right bank of Yucanguare	460	2.2	16.0	18.2	19.0
Left bank of Yucanguare	215	1.5	11.8	13.4	17.1
Naranjo	375	1.6	11.8	13.4	11.2
Mixcre	538	4.1	11.3	15.5	11.9
Cumes	447	4.4	4.8	9.6	16.4
Aro	90	1.9	5.5	7.7	7.2
Total	3,359				
2)Plan of Agricultural infrastructure:					
Rural road: 5.96km, Spillway: 3, Farmers' assembly hall: 8, Agricultural development center: 1					

インテibuカ県ヘス・デ・オトロ盆地灌漑農業開発計画

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

The final report of this survey works has been submitted in March 1994. Based on the report, the Honduran Government officially requested to the Government of Japan during the fiscal year of 1994 to implement this project by Japanese grant aid.

**(FY 1995 Overseas Survey)**

The negotiation regarding to the financial cooperation is carrying on among both government of Japan and Honduras.

**(FY 1996 Overseas Survey)**

The Japanese Government was requested for the provision of grant aid assistance for the implementation of the Irrigation and Drainage Project targetting 460ha of area covering the left bank of the Yucanguare.

**(FY 1997 Domestic Survey)**

The Government of Honduras is preparing to request a grant aid.

The regime has changed soon after the completion of the study. Therefore, all the projects were checked. The Government has decided to request a grant aid for this project but difficulty in allocating national budget and outflow of C/P at that time due to the change of regime and delayed payment of wages are impeding factors.

**(FY 1998 Domestic Survey)**

It seems that the request for a grant aid assistance for irrigation/drainage development project in Yucanguare Area will be submitted.

**(FY 1999 Overseas Survey)**

1997-98 The request for Japan's grant aid for "Irrigation and Drainage Plan for the Right Bank of Yucanguare" was submitted.

Amount: US\$4,200,000. Contents: construction of facilities, procurement of equipment/materials, technical assistance.

**(FY 2000 Domestic Survey)**

No information.

**(FY 1997 Overseas FU Survey)****Causes of Delay:**

The Honduran government defines in its Agricultural Politics(1995-1998) the Valley of Jesus de Otoro as one of the areas with an urgent need for the development of irrigation. However, up to now, actions have not been made in order to reach the project execution. Among the reasons found are,

-the high total cost of the project and a low number of families who would be benefitted in a direct way

-the plan proposed a high percentage participation on the part of the Honduran government, which represent 47.5% of the total cost

-absence of an appropriate legal framework for the hydrological resources.

**Actual Situation of the Areas:****\*Possession of the land**

The legal possession of the land is related to getting credit. All the organism that provide credit in rural areas demand a mortgages. This requires submission of the land title. The government of Honduras developed a plan of expropriation and distribution of land within the framework of agrarian reform with the objective of strengthening families with less than 5 ha.

**\*Farmers' organizations**

The farmers in the zone are organized in groups, associative enterprises and cooperatives with the object of administering and working the land in a collective way. At the same time, this grouping makes technical assistance, credit and commercialization of the products.

**\*Infrastructure**

The road system in the Jesus de Otoro Valley is the same as mentioned in the study. In the last 5 years, 3 communal centers were built in the communities of Aro, San Francisco, and Tatumba.

**Consideration for the Implementation of the Project:****(Recommendation by the FU consulting company)**

For implementation of the project it is necessary to consider aspects such as the number of beneficiaries, the project cost, the chronogram of execution and others.

Firstly, sub-projects which benefit a high number of families of small and medium produce with a high EIRR, namely sub-project of right bank of the Yucanguare river, left bank of the Grande de Otoro river, Naranjo, Mixcure, Aro, right bank of the Grande de Otoro, need to be implemented. The sub-project right bank of the Yucanguare river must be done as a high priority. It is suggested that this sub-project be established as a demonstration center, in which the experiences of the project may be evaluated. At the same time, it can be used to check the changes of attitude of the participating producers, and to give training to other producers of the zone.

The zone of the project is located not far from CEDA (Agricultural Development Training Center) and FHIA (Honduran Agricultural Investigation Foundation), so that the importance of building a development center only for a short period of time in the zone is not clear. Making use of CEDA and FHIA is recommended for the training of technicians as well as producers in the zone.

There are 12 Associative Enterprises of Farmers (EACP) and 18 farmers' groups among farmers' organizations, which is one of the important aspects of the project. This shows that the producers have seen the advantages of being organized. The next step must consist of an organization of the farmers's groups in EACP and of encouraging the non-associated producers. Also the creation of groups of water users will be necessary in each region.

The creation of the legal framework is necessary for the smooth functioning of the irrigation project. The approval of the law of waters by the National Congress is of an urgent because it is necessary to establish a national plan of hydrological resources.

The new agenda of the Honduran government has programed for the next 4 years the implementation of 16,000 ha of irrigation. The bilateral cooperations and support from international organizations are fundamental to achieve the goals.

**Other Organizations:**

The World Bank is conducting the Rural Land Administration Program (US\$ 3.4 mil for 3 years) and Environment Development Project(US\$ 11 mil), and BID is supporting drainage and water supply project. Both banks have no plan to assist irrigation project near future.



# STUDY SUMMARY SHEET

## (M/P)

CSA HND/S 119/96

<b>1. COUNTRY</b>	Honduras	
<b>2. NAME OF STUDY</b>	Maintenance Project of the Vehicle Traffic System in Teguchigalpa	
<b>3. SECTOR</b>	Transportation / Urban Transportation	
<b>4. TYPE OF STUDY</b>	M/P	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Oriental Consultants Co., Ltd. Central Consultant, Inc.	
<b>7. STUDY PERIOD</b>	May.1995 ~ Nov.1996 18month(s) ~	
<b>8. SITE OR AREA</b>	Metro Greater Teguchigalpa	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<ul style="list-style-type: none"> <li>1. Intersection Improvement</li> <li>2. Road Improvement and New Construction Work</li> <li>3. New Bridge Construction</li> <li>4. Improvement of Bus System</li> </ul>		

テグシガルパ市都市交通網整備計画調査

<b>PRESENT STATUS</b>	<p>In Progress or In Use</p> <p>Delayed</p> <p>Discontinued</p>
<p><b>Description :</b></p> <p>(FY 1997 Domestic Survey) Teguchigalpa City is carrying out an intersection improvement project with a loan from Mexico. Teguchigalpa City requested to carry out a bridge construction project over the middle to long-term with a Japanese grant.</p> <p>(FY 1998 Domestic Survey) The review of the project is required due to the damage by hurricane on Oct. 1998.</p> <p>(FY 1998 Overseas Survey) Study regarding the proposed projects (1),(2), and (4) were conducted; (1) Improvement of the traffic toward and the ring road around the National Stadium; (2) Improvement of the intersection of Cabanas Blvd. and Santa Fe; and (3) Installation of the traffic signs at the intersection of Blvd. Jose Cecilio Valle and Golan Street.</p> <p>(FY 1999 Overseas Survey) Training on the transportation/traffic projects was held in Sep. 1997 with financial assistance from Mexico. Twelve experts from the Tegucigalpa Road Committee participated in this training. The Government of Honduras constructed the bridge connecting from Comayagua Sixth Street to Tiloarque.</p> <p>(FY 1999 Domestic Survey)(FY 2000 Domestic Survey) Finance: 1. Project for Reconstruction of Bridges in Teguchigalpa Metropolitan Area Finance: 1999/Dec/17 E/N 73 million JPY 2000/Apr/26 E/N 2,233 million JPY Construction: Constructor: Konoike Construction Co., Ltd.) Consultants: Central Consultant Inc., PCI</p> <p>2. Project for Construction of Choluteca Bypass Bridge Finance: 1999/Dec/17 E/N 68 million JPY 2000/Apr/26 E/N 2,116 million JPY Construction: (FY 2001 Overseas Survey) 2000/Oct/24-2003/Jan/31 Constructor: Hazama Corporation Consultants: Central Consultant Inc., PCI</p> <p>3. Project for Construction of Ilima Bridge and Democracia Bridge Finance: 1999/Dec/17 E/N 85 million JPY 2000/Apr/26 E/N 3,519 million JPY Construction: (FY 2005 Overseas Survey) 2000/Oct/24-2003/Apr/30 Constructor: Hazama Corporation Consultants: Central Consultant Inc., PCI</p>	

# STUDY SUMMARY SHEET

## (M/P)

CSA HND/S 123/96

<b>1. COUNTRY</b>	Honduras	
<b>2. NAME OF STUDY</b>	The Study on the Strategies and Plans for the Upgrading of Health Status	
<b>3. SECTOR</b>	Others / Others	
<b>4. TYPE OF STUDY</b>	M/P	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	MOH(Ministry of Health)
	<b>PRESENT COUNTERPART AGENCY</b>	MOH
<b>6. CONSULTANT(S)</b>	System Science Consultants Inc.	
<b>7. STUDY PERIOD</b>	Jan.1995 ~ Oct.1996 21month(s) ~	
<b>8. SITE OR AREA</b>	whole country	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>The study identified the present condition of the whole nation and analyzed the problems in Phase I. Based on this analysis, Phase II was carried out to plan the strategies and to prepare the National Master Plan. In Phase III, various rural programs/projects were formulated and selected along with the context of this National Master Plan. The components which possibly need financial assistance from the donor countries or the international organizations are shown below;</p> <ol style="list-style-type: none"> <li>1.Model Program for Urban Cities (San Pedro Sula city) <ul style="list-style-type: none"> <li>-AIDS promotion center</li> <li>-Health information center</li> <li>-Maintenance center for medical equipment and facilities</li> </ul> </li> <li>2.Model Program for Poverty Areas (Intibuca and Tegucigalpa) <ul style="list-style-type: none"> <li>-Training/Promotion center for "Healthy Village" in mountainous areas (rural type)</li> <li>-Health Information Center for Urban Poors (urban type)</li> </ul> </li> <li>3.Model Program for Integrated Development Area (Olancho) <ul style="list-style-type: none"> <li>-Information System for improvement of rural health</li> </ul> </li> </ol>		

<b>PRESENT STATUS</b>	<p style="text-align: center;">In Progress or In Use</p> <p style="text-align: center;">Delayed</p> <p style="text-align: center;">Discontinued</p>
<p><b>Description :</b></p> <p>(FY 1997 Domestic Survey) No progress at the moment, although the project is being promoted. It is also because the change of the government is expected due to election results.</p> <p>(FY 1998 Domestic Survey) Higher priority is given to projects in other sectors and the priority of the project became lower accordingly.</p> <p>(FY 1998 Overseas Survey)(FY 1999 Overseas Survey) Integrated Development Model Program in Olancho is to be included in the M/P that would be approved by Japanese government within FY 1998. The request for implementing the Project of Strengthening the Hospital Networks in San Pedro Sula (five emergency clinics, one maternity hospital, their equipment) was submitted to Japanese government.</p> <p>(FY 2000 Domestic Survey) As for the projects in San Pedro Sula city, the B/D was said to be started in 2000. No detailed information was available however.</p> <p>Subsequent Study: (FY 2001 Overseas Survey) Study period: 2002/Mar (B/D) Contents: Regarding the project to enhance the network among urban hospitals (construction of medical facilities and equipment including obstetrical facilities)</p>	

# STUDY SUMMARY SHEET

## (Basic Study)

CSA HND/A 501/96

<b>1. COUNTRY</b>	Honduras	
<b>2. NAME OF STUDY</b>	Forest Resources Management and Development Study in Teupassenti	
<b>3. SECTOR</b>	Forestry / Forestry & Forest Conservation	
<b>4. TYPE OF STUDY</b>	Basic Study	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Japan Forest Technical Association Pasco International Inc.	
<b>7. STUDY PERIOD</b>	Jan.1995 ~ Nov.1996 22month(s) ~	
<b>8. SITE OR AREA</b>	Study Area (190,000ha) and Model Area (40,000ha) located in Teupasenti, Department of El Paraiso.	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>1. Forest Management Guideline for Study Area</p> <ul style="list-style-type: none"> <li>- Established guidelines for land use, forest management, cutting, regeneration, forest protection, social forestry, forest industry development, and forest roads.</li> <li>- Incorporated environmental considerations into the guidelines.</li> </ul> <p>2. Forest Management Plan for the Model Area</p> <ul style="list-style-type: none"> <li>- Established a ten-year forest management plan based on the guidelines prepared above.</li> <li>- Prepared the productivity map for the pine forest (5,000ha) in the Model Area for the effective implementation of the Plan.</li> </ul>		

<b>PRESENT STATUS</b>	<p style="text-align: center;">In Progress or In Use</p> <p style="text-align: center;">Delayed</p> <p style="text-align: center;">Discontinued</p>
<p><b>Description :</b></p> <p>Japanese technical cooperation: (FY 1998 Overseas Survey) April 1998 ~ April 2000 Dispatch of an expert (forestry management)</p> <p>(FY 1997 Domestic Survey) 1. Japanese expert COHDEFOR, the counterpart organization of the Study, has requested that JICA dispatch a Japanese expert for the implementation of the Forest Management Plan. 2. Operational Plan of COHDEFOR Based on the above Plan, COHDEFOR has prepared an operational plan for Teupasenti National Forest for the period of July to December, 1997 which is currently under implementation.</p> <p>(FY 1998 Domestic Survey) COHDEFOR is implementing the project in part of the planned area in accordance with the plan. Part of the forest in the planned area was damaged by a hurricane this year.</p> <p>(FY 1999 Overseas Survey) Annual Operation Plan in 1998 has 2.1 million HNL for forest protection, silviculture, logging, social infrastructure, investigation and administration, etc. Some of those funds was realized. Those funds were mainly used for preparation of logging site. Five lots were prepared in 1998. Three of these lots were sold with the value of 1.28 million HNL and currently under logging.</p> <p>(FY 2001 Domestic Survey) Although the forests were damaged by Hurricane Mitch, they seem to be recovering. The bridges are being reconstructed fully or temporarily. Access roads to the study sites have also recovered.</p>	

# STUDY SUMMARY SHEET

## (M/P)

CSA HND/A 113/97

<b>1. COUNTRY</b>	Honduras	
<b>2. NAME OF STUDY</b>	Small Scale Fisheries Development Project on the North Coast	
<b>3. SECTOR</b>	Fishery / Fishery	
<b>4. TYPE OF STUDY</b>	M/P	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	System Science Consultants Inc.	
<b>7. STUDY PERIOD</b>	Jan.1995 ~ Oct.1997 33month(s) ~	
<b>8. SITE OR AREA</b>	The entire north coast of the country	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>The Study identified the present condition of the area and analyzed the problems in Phase I. In Phase II, the Fisheries Census was carried out to plan the strategies and to prepare basic concept of the Master Plan. Finally, in Phase III, the Study concluded the Master Plan. The Sector Plans included in this Master Plan are shown below;</p> <ol style="list-style-type: none"> <li>1) Plan of Capacity Building for Coastal Resources Management.</li> <li>2) Plan of Small-Scale Fisheries Modernization.</li> <li>3) Plan of Fish Marketing Improvement.             <ul style="list-style-type: none"> <li>- Plan of Trujillo Fish Collection Base Development.</li> <li>- Plan of Fish Marketing Improvement in the Eastern Region.</li> <li>- Improvement Plan of Fresh Fish Sales Method in Consumer's Markets.</li> </ul> </li> <li>4) Plan of Fishing Community Infrastructure Improvement.</li> <li>5) Plan of Fisheries Community Women Support.</li> <li>6) Plan of Fishermen Organization Improvement.</li> <li>7) Plan of Small-Scale Fisheries Credit.</li> </ol>		

北部沿岸小規模漁業振興計画調査

<b>PRESENT STATUS</b>	In Progress or In Use  Delayed  Discontinued
-----------------------	--

**Description :**

(FY 1998 Domestic Survey)

No progress.

A grant aid project "The Project for Modernization of Small-scale Fisheries in the North Coast of the Republic of Honduras" which was implemented with a close coordination with this master plan study finished with the hand-over of facilities and equipment in 1999.



## STUDY SUMMARY SHEET (M/P+F/S)

CSA HND/S 208/00

<b>1. COUNTRY</b>	Honduras	
<b>2. NAME OF STUDY</b>	Study on Water Supply for Tegucigalpa Urban Area in the Republic of Honduras	
<b>3. SECTOR</b>	Public Utilities / Water Supply	
<b>4. TYPE OF STUDY</b>	M/P+F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Metropolitan Division of the National Service Authority for Water Supply and Sewerage (SANAA)
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Pacific Consultants International (PCI)	
<b>7. STUDY PERIOD</b>	Jan.2000 ~ Jan.2001 12month(s) ~	
<b>8. SITE OR AREA</b>	Upstream of the existing Los Laureles Dam	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>As a F/S project, Los Laureles II Project was selected.          Los Laureles II Project comprises the following two components;</p> <ul style="list-style-type: none"> <li>- Construction of Los Laureles II Dam</li> <li>- Sediment Excavation of existing Los Laureles Dam and the planned river channel of the new Los Laureles II Dam</li> </ul>		

テグシガルバ市水供給計画調査

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

(FY2001 Overseas survey)

Service for the expansion and improvement of system, for the improvement of life environment for its inhabitants in Tegucigalpa, SANANAA has been working for the concretion and assessment of this survey.

Finance:

(FY 2001 Domestic Survey)

The construction of Los Laureles II Dam project was officially applied in August 2000.

Since it was not adopted as projects for fiscal year 2000, applicaiton was re-submitted in August 2001. Awaiting for the acceptance.

(FY 2003 Overseas Survey)

A request for grant aid was made to the Japanese government with the objective of constructing the Los Laureles II Dam in the urgent plan for supplying potable water to Tegucigalpa. SANAA implemented field consulting in relation to the hydrological survey and the geological survey in Gwaserike River that is a dam site in the upstream of Los Laureles Dam.

(FY 2004 Domestic survey)

Honduras government has been requesting for JICA grant aid cooperation every year since 2001.

(FY 2004 overseas survey)

About the final designing of the emergency project for the water supply to Tegucigalpa, Los Laureles II, requested the grant aid cooperation in 2003 July 16 via SETCO. The total sum was 3 billion yen. Also based on the domestic finance, SANAA had a consultation on the conformation of geological features for hydrology and land of Los Laureless Dam on Gwaserike River. More over, SANAA had a survey on the private property and houses of the residents who would be harmed by its effects as a transitional preparation. Today, the Honduras government is judging that drawing up of an emergency project for the Teguchigalpa water supply in the same are as Los Laureles II survey area. Also, if the necessary amendments would be done, the capacity of water tank would be expanded. Water tank would be constructed, dividing its work into several phases.

(FY 2005 Domestic Survey)

Subsequent Study: The quantity survey of emergency water supply plan in Tegucigalpa and the study of its environmental and social consideration

Implementing period: the beginning of July 2005 - the end of January 2006

Implementing body: JICA

Objectives:

To confirm the contents of the request and the intention of the Honduran government concerning the plan based on the studies mentioned above, to consider feasibility and validity of implementing a grant-aided cooperation by reviewing the result of development study with necessary information particularly focusing on environmental and social consideration

(FY 2005 Overseas Survey)

In August 2005 - JICA has dispatched a pre-study team to confirm the contents of the request made. Study team has evaluated information. conducted site survey, and analysed the importance of Laureles II with the SANAA.

# STUDY SUMMARY SHEET

## (M/P+F/S)

CSA HND/S 222/02

<b>1. COUNTRY</b>	Honduras		
<b>2. NAME OF STUDY</b>	The Study on flood control and landslide prevention in the metropolitan area of the Republic of Honduras		
<b>3. SECTOR</b>	Social Welfare / Disaster Relief		
<b>4. TYPE OF STUDY</b>	M/P+F/S		
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>		
	<b>PRESENT COUNTERPART AGENCY</b>		
<b>6. CONSULTANT(S)</b>	Pacific Consultants International (PCI)		
<b>7. STUDY PERIOD</b>	Jan.2001 ~ May.2002 16month(s) ~		
<b>8. SITE OR AREA</b>			
<b>9. MAJOR PROPOSED PROJECT(S)</b>			
Pilot Plan: Structural measures: 1) Construction of channels of Choluteca River 2) Stabilization of Berrinche, Reparto 3) Construction small-scale channels in Bambu Canyon and other areas Non-structural measures: 1) Strengthening response capacity of residents 2) Early warning system (SAT) 3) Education for residents and establishing systems			

首都圏洪水・地滑り対策緊急計画調査

PRESENT STATUS	Completed or In Progress Completed Partially Completed Implementing Processing	Promoting Delayed or Suspended Discontinued or Cancelled
<p><b>Description :</b></p> <p>(FY 2003 Overseas Survey)  Details of request:  1)Financing of 2 million USD for development of projects with less environmental impacts such as stabilization of Bambu Jand Campo Cielo and construction of rainwater channels in such districts as Reparto and Kanane.  2)Funds to construct the Estocolmo Bridge.</p> <p>Details of future projects:  1)Strengthening of organizations, fostering of CODELES as an emergency response agency of this city, expansion of equipment for CODELES and strengthening of CODEM.  2)Early Warning System 1 and Siren 4 that needs to be installed, and equipment to support information obtained by various communication technologies by use of river water level detection system, water level scale and rain gauge under the support of PNUD.  3)Introduction of a multiskilled personnel group for the purpose of education of CODEM personnel in relation to the ARC VIEW system and preparation for it.  4)Improvement of capabilities in terms of dealing with site structures (CODEL). Equipment and fosterage.</p> <p>(FY 2004 Domestic Survey)  Funding request: 2002 JICA Grant Aid</p> <p>(FY 2004 Overseas Survey)  Request for an economic Grant Aid was submitted to Japanese government from Ministry of Public Works, Transport and Housing (SOPTRAVI) through Ministry of International Cooperation (SETCO) on 3rd September 2002. Currently, other funding parties have not been secured. The requested amount is 36 million USD, which is planned to be used for urgent construction identified by the study team from Japan. If the reply can not be heard within this fiscal year, it is intending to reconsider the request for economic Grant Aid in 2005.  In 2003 and 2004, 350,000 USD from national budget is used for a construction aiming for a flood and land slide management in cosmopolitan area. These constructions have been direct coordination by SOPTRAVI. Currently, fund raising activities for the implementation of the project are conducted by Municipality of the Central District (AMDC) and other agencies.</p> <p>(FY 2005 Domestic Survey)  While several requests for a Grant Aid have been made regarding flood control and utilisation, priority is being given to urgent water supply to Tegucigalpa metropolitan area, which the project has low priority in comparison.</p>		

# STUDY SUMMARY SHEET

(F/S)

CSA JAM/A 301/85

<b>1. COUNTRY</b>	Jamaica	
<b>2. NAME OF STUDY</b>	Agricultural Development Project on the Black River Lower Morass	
<b>3. SECTOR</b>	Agriculture / (Agriculture in) General	
<b>4. TYPE OF STUDY</b>	F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Ministry of Agriculture, Department of Planning and Policy
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Nippon Koei Co., Ltd. Taiyo Consultants Co., Ltd.	
<b>7. STUDY PERIOD</b>	Feb.1984 ~ Jun.1985 16month(s) ~	
<b>8. SITE OR AREA</b>	Black River Lower Morass Area(situated in the western part of Jamaica near the southern cost in the Parish of St.Elizabeth)	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>1)Major Investment for the Project</p> <p style="margin-left: 20px;">a. Irrigation Area : 3,080 ha</p> <p style="margin-left: 20px;">B. Major Facilities: (1) Diversion Weir: 1place, (2) Irrigation Pump St: 1 place with 4 units of 120kW 700mm diameter, (3) Drainage Pump St. : 4 places with 15 units of 100-125HP 800mm diameter, (4) Irrigation Canal: main 35.2km &amp; secondary 31.6km, (5) Drainage Canal: main 41.3 km, secondary 154.0km &amp; catch drain 17.0km, (6) Farm Road:main 35.2km &amp; secondary 83.4km, (7) Flood Protection Dike: 29.0km, (8) Others: Office &amp; Quarters, Ground water level observation wells &amp; Environment conservation.</p> <p>2)Post Harvest Facility: 5 drying &amp; storage stations and 1 rice mill</p> <p>3)Social Infrastructure: Upgrading/construction of Housing, Schools, Health center Road, Water supply and Community center Implementation period will be 6 years which consists of Phase-I of 3 years including detailed design and Phase-II of 3 years.</p>		

ブラックリバーローアマラス農業開発計画

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

## Causes for Delay or Cancellation:

(FY 1994 Domestic Survey)

At first, the project was suspended due to the high construction cost. Later, the government has changed its agricultural development policy to export oriented agriculture following the change of regime.

(FY 1997 Overseas Survey)

Environmental protection of wet land is necessary. Study to show benefits of draining lands when idle lands are remained untouched, must be carried out.

(FY 1998 Domestic Survey)

It seems that there is little possibility to implement the projects by Japanese ODA. Approximately 14 years have passed since the completion of this study, and the social and environmental situations have been changed. Therefore, it seems the proposed projects will not be implemented without being reviewed.

## Situation:

It was subject to establish a holding company who would be responsible for construction of civil engineering works, development and operation of the pilot farm, land lease and management as well as recruitment, training, selection and settlement of farmers.

However, due to some reasons such as rather expensive cost per unit area, etc., some agency (National Investment Bank) refused to establish the holding company, as of November, 1985.

Proposed membership of the Board of Directors to be appointed by the Government was, Permanent Secretary of the Ministry of Agriculture or his nominee, Commissioner of Land, a representative from the Ministry of Finance, a representative from the Jamaica National Investment Bank, a representative from the National Water Commission, and two other nominees.

## Related Project:

(FY 1997 Overseas Survey)

"National Irrigation Development Plan (NIDP)" (overall development of Jamaica's irrigation sector)

Consulting Company / HARZA International

Imp. Period / Feb.1997~Mar.1998

Cost / US\$ 900,000 (IADB)

Request for financial assistance will be submitted to IADB in Nov.1998. Implementation is scheduled in 1998~2003.

# STUDY SUMMARY SHEET

(F/S)

CSA JAM/A 302/87

<b>1. COUNTRY</b>	Jamaica	
<b>2. NAME OF STUDY</b>	Modernization and Expansion of the Rio Cobre Irrigation Scheme	
<b>3. SECTOR</b>	Agriculture / (Agriculture in) General	
<b>4. TYPE OF STUDY</b>	F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Ministry of Agriculture
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Taiyo Consultants Co., Ltd. Nippon Koei Co., Ltd. Kokusai Kogyo Co., Ltd.	
<b>7. STUDY PERIOD</b>	Jan.1986 ~ Jun.1987 17month(s) ~	
<b>8. SITE OR AREA</b>	22km far from Kingstone in the west (the surveyed area: 274 sq.km, population 130,000)	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>The project area is situated in the eastern part of Jamaica near the southern coast in the parish of St. Catherine.          Rio Cobre Irrigation System: 12,990ha(completed in 1874)          St. Dorothy Irrigation System: 2,340ha(completed in 1963)          The main concepts of the project are:</p> <ul style="list-style-type: none"> <li>- to modernize and expand the present irrigation system by reconstructing and improving existing infrastructures.</li> <li>- to introduce diversified cropping patterns including non-traditional crops into the annual rotation of cropping.</li> <li>- to increase and stabilize yields and production of crops by means of sound management of irrigation and drainage.</li> <li>- to achieve successful small scale farmer enhancement through appropriate training and agricultural support services.</li> <li>- to promote the leveling up of living standards and more equitable distribution of income to the people.</li> </ul> <p>The main civil works are:          1)rehabilitation of headworks, 2)rehabilitation of canals, 3)reservoirs          4)land consolidation, 5)road construction.</p>		

リオ・コブレ農業開発計画

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed Partially Completed Implementing Processing	Delayed or Suspended   Discontinued or Cancelled
<p><b>Description :</b></p> <p>This project has been given high priority in the "Food and Agriculture Policies/production Five-Year plan (1983/84-1987/88)" of the Government.</p> <p>Finance: Own fund and USAID fund</p> <p>Detail: Because the allocated fund was considerably small, the project was partially implemented. The implemented projects were the improvement of a small-scale reservoir and the small -scale land consolidation.</p> <p>(FY 1997 Overseas Survey) All the irrigation projects in Jamaica are to be implemented within the framework of National Irrigation Development Plan (1998-2003). Financial sources are government budget, IADB, FAO, Japanese grant and so on. Within the Rio Cobre project, canals have been modernized under the Government budget.</p>		



## STUDY SUMMARY SHEET (Other Studies)

CSA MEX/S 601/77

<b>1. COUNTRY</b>	Mexico																						
<b>2. NAME OF STUDY</b>	Mexico City Suburban Railways Construction Project																						
<b>3. SECTOR</b>	Transportation / Railway																						
<b>4. TYPE OF STUDY</b>	Other Studies																						
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Secretaria de Comunicaciones y Transportes																					
	<b>PRESENT COUNTERPART AGENCY</b>																						
<b>6. CONSULTANT(S)</b>	Japan Railway Technical Service (JARTS)																						
<b>7. STUDY PERIOD</b>	Sep.1977 ~ Mar.1978 6month(s) ~																						
<b>8. SITE OR AREA</b>	Suburban railways of Mexico City; 5 lines with total extension of 77km																						
<b>9. MAJOR PROPOSED PROJECT(S)</b>																							
<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Alternatives:</th> <th style="text-align: center;">A</th> <th style="text-align: center;">B</th> </tr> </thead> <tbody> <tr> <td>Civil engineering Works(stations)</td> <td style="text-align: center;">9,022</td> <td style="text-align: center;">7,821</td> </tr> <tr> <td>Electric engineering Works (power transmission)</td> <td style="text-align: center;">2,221</td> <td style="text-align: center;">1,395</td> </tr> <tr> <td>Signal and telecommunication equipment (including interference countermeasures)</td> <td style="text-align: center;">1,731</td> <td style="text-align: center;">1,416</td> </tr> <tr> <td>Rolling stock (318 - 369 cars)</td> <td style="text-align: center;">6,107</td> <td style="text-align: center;">4,952</td> </tr> <tr> <td>Rolling Stock bases</td> <td style="text-align: center;">1,327</td> <td style="text-align: center;">1,296</td> </tr> <tr> <td></td> <td colspan="2" style="text-align: center;">(in million pesos)</td> </tr> </tbody> </table>			Alternatives:	A	B	Civil engineering Works(stations)	9,022	7,821	Electric engineering Works (power transmission)	2,221	1,395	Signal and telecommunication equipment (including interference countermeasures)	1,731	1,416	Rolling stock (318 - 369 cars)	6,107	4,952	Rolling Stock bases	1,327	1,296		(in million pesos)	
Alternatives:	A	B																					
Civil engineering Works(stations)	9,022	7,821																					
Electric engineering Works (power transmission)	2,221	1,395																					
Signal and telecommunication equipment (including interference countermeasures)	1,731	1,416																					
Rolling stock (318 - 369 cars)	6,107	4,952																					
Rolling Stock bases	1,327	1,296																					
	(in million pesos)																						
<p>Note: The costs of Alternative A correspond to the figures for 1) and Alternative B for 2) above.</p>																							

メキシコ市内通勤鉄道建設計画

<b>PRESENT STATUS</b>	In Progress or In Use
	Delayed
	Discontinued

**Description :**

## Reasons for Cancellation:

This study was to review, from the technical and economic standpoints, the basic plan for new suburban railway lines which was being prepared by the Mexican Government as part of the overall urban transport improvement policy for Mexico City, and to undertake a pre-feasibility study of the construction plan.

Based on the results of this study, Mexican Government came to the conclusion that the estimated costs of construction would be too large for the already financially-strapped National Railways to bear, and decided on the alternative of subway construction which was being promoted by the Federal District Government.

In other words, the proposals of this study were not adopted for implementation, but served as one of the bases for the important policy decision by the Mexican Government.

## Related Information:

Subway Construction in Mexico City

Fiscal Year	Line	Length	Passenger
1977	2	37km	1.81 mil./day
1988	8	141km	4.04 mil./day

As for the railway connection between Mexico metropolitan and suburbs, the construction plan of 6 radial railways with a radius of 100km is on process.

## STUDY SUMMARY SHEET (Other Studies)

CSA MEX/S 602/79

<b>1. COUNTRY</b>	Mexico	
<b>2. NAME OF STUDY</b>	Suburban Railways Project (Follow-Up)	
<b>3. SECTOR</b>	Transportation / Railway	
<b>4. TYPE OF STUDY</b>	Other Studies	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Secretaria de Comunicaciones y Transportes
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Japan Railway Technical Service (JARTS)	
<b>7. STUDY PERIOD</b>	Jun.1979 ~ Aug.1979 2month(s) ~	
<b>8. SITE OR AREA</b>	Suburbs of Mexico City	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>As part of the railway modernization policy, the Mexican Government is planning the electrification of the entire railway system. The Government requested Japanese technical cooperation concerning feasibility studies on two of the high priority sections selected for electrification: Namely, the section between Mexico City and Queretaro (244km) and the section between Mexico City and Irapuato (95km).</p> <p>In response to the request, the Japanese Government sent a team of experts to assist the undertaking of the feasibility studies. The process are the following;</p> <ol style="list-style-type: none"> <li>1. This study took the following into account. <ol style="list-style-type: none"> <li>(1) Several sypes of electrification are widely applied in the world.</li> <li>(2) Electrification is considered not a simple aggrigation but a "united system" integrating the related factors.</li> </ol> </li> <li>2. This study compared the following types <ul style="list-style-type: none"> <li>- Types of electric generations ; a. AT type, b. direct type</li> <li>- Types of aerial line ; a. multiful type, b. arranged-T type</li> </ul> <p>This study investigated electric characters of each type, and tried to clear the relation between signal systems and each type.</p> </li> <li>3. At last the study suggested gov. of Mexico the following issue be very important. A type of electrification, being the most suitable to the whole situation of the nation, should be selected from many types.</li> </ol>		

近郊鉄道計画(アフターケア)

<b>PRESENT STATUS</b>	In Progress or In Use
	Delayed
	Discontinued

**Description :**

(1)Mexico City-Queretaro (244km)

Construction:

1981 Commenced

1982-1986 Construction suspended due to the decline of oil prices

Feb.1992 80% of construction works completed

1993 Operation on commercial basis scheduled to be started

(2)Queretaro-Irapuato (95km)

Suspended until the section between Mexico City and Queretaro is open.

Detail:

(FY 1994 Domestic Survey)

The findings of this study were also utilized in the "Project of Electrification of Line from Mexico to Irapuato (1981)".

# STUDY SUMMARY SHEET

## (Other Studies)

CSA MEX/S 603/81

<b>1. COUNTRY</b>	Mexico	
<b>2. NAME OF STUDY</b>	Proyecto de Electrificación de la Línea de Mexico a Irapuato	
<b>3. SECTOR</b>	Transportation / Railway	
<b>4. TYPE OF STUDY</b>	Other Studies	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Secretaria de Comunicaciones y Transportes
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Japan Railway Technical Service (JARTS)	
<b>7. STUDY PERIOD</b>	May.1980 ~ Mar.1981 10month(s) ~	
<b>8. SITE OR AREA</b>	Section between Mexico city and Irapuato(351.2km)	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>For each technical field composing the electrification of the railway, various systems are adopted in the world.</p> <p>These systems may have respective merits and demerits. Since the electrification is not a simple cumulation of those technologies but a composite system organizing each regarding technologies. It has been recommended to the Mexican government that it is the most important subject to select the most appropriate system for Mexico among AT feeding, direct feeding, railway track feeding and the other systems from the point of view of that in comparison of electrical characteristics such as of feeding and/or of collection of current, and to make clear the relationship between feeding system and signaling facilities corresponding facilities. The recommendation is consisted of following items :</p> <p>(1)To draw the operation (driving) plans,  (2)Introduction of locomotives,  (3)Design of Railway Lines,  (4)Arrangements of suppliment system of electricity,  (5)Arrangements of signaling facilities  a.Signaling system for double track  b.CTC for whole section  c.New establishment of ATC for whole section,  (6)Arrangements of corresponding system, and  (7)Arrangements of inspection/repairment systems for rolling stocks.</p>		

幹線鉄道電化計画

<b>PRESENT STATUS</b>	In Progress or In Use
	Delayed
	Discontinued

**Description :**

\*Refer to "Suburban Railways Project (follow-up) (1979)".

(1) Mexico City-Queretaro (244km)

**Finance:**

Several institutions relating to NAFINSA financed the project.

Own fund

(FY 1997 Overseas Survey)

1986~1992 (World Bank)

**Construction:**

1981 Commenced

1982-1986 Construction suspended due to the decline of oil prices

Feb. 1992 80% of construction works completed

1993 Operation on commercial basis scheduled to be started

(2) Queretaro-Irapuato (95km)

Suspended until the section between Mexico City and Queretaro is open.

(FY 1997 Overseas Survey)

There is no plan for electrification of section from Queretaro because of low feasibility.

## STUDY SUMMARY SHEET (Other Studies)

CSA MEX/S 604/82

<b>1. COUNTRY</b>	Mexico	
<b>2. NAME OF STUDY</b>	Development Plan of Industrial Ports	
<b>3. SECTOR</b>	Development Plan / Integrated Regional Development Plan	
<b>4. TYPE OF STUDY</b>	Other Studies	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Comision Nacional Coordinadora del Desarrollo, Secretaria de Presidente (SCT)
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	The Overseas Coastal Area Development Institute (OCDI)	
<b>7. STUDY PERIOD</b>	Jul.1980 ~ Mar.1982 20month(s) ~	
<b>8. SITE OR AREA</b>	Altamira Port, Lazaro Cardenas Port, Oschon Port, Salina Cruz Port, Dos Bocas Port, Ensenada Port, Toborobanpo Port, Tocuspan Port	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>The Japanese expert team provided technical advice and guidance on the port development necessary for coastal industrial growth, covering such areas as planning of physical facilities(including cargo facilities at multi-purpose wharves), cargo handling operations, and alternatives of physical development.</p> <ul style="list-style-type: none"> <li>-Plan and design of basic port facilities of major ports.</li> <li>-How to develop and manage industrial ports.</li> </ul>		

臨海工業地帯建設にかかる技術協力計画

<b>PRESENT STATUS</b>	In Progress or In Use
	Delayed
	Discontinued

**Description :**

The progress of development in the selected ports has been as follows:

## (1)Altamira Port

1985 Multi-purpose berth (No.1 Berth) completed for use

Feb.1990 No.2 Berth completed for use

May.1990 Construction of No.3 Berth to be started and to be completed in 1992.

(Infrastructural development to be financed by own funds, and necessary equipment by World Bank.)

## (2)Lazaro Cardenas Port

1985 General cargo berth completed for use No.3 Berth (multi-purpose) will be constructed dependent on the future increase of cargo throughput.

## (3)Oschon Port

Development is suspended due to problems in land acquisition

## (4)Salina Cruz Port

The construction of the breakwater was completed, but the development of the port is suspended. However, the development of oil-exporting port facilities has been under way.

## Maintenance &amp; Operation:

(FY 1996 Overseas Survey)

The private trading company, which is responsible for the comprehensive port management, has been conducting the management of the completed project. Also, the container terminal in the Altamira Port was transferred to a private corporation through concession.

## Effect:

(FY 1996 Overseas Survey)

The project implementation results in the growth of the cargo volume handled in the Port. Between 1985 and 1995, the handled volume grew by 46% in the Altamira Port and by 22.7% in the Lazaro Cardenas Port.

## Progress in the Port Development Plan:

(FY 1996 Overseas Survey)

The capacity of volume, which can be handled in each port, is projected as follows:

	Present volume	Projected capacity
Altamira Port	12mil.ton/year	330mil.ton/year
Lazaro Cardenas Port	18mil.ton/year	160mil.ton/year



# STUDY SUMMARY SHEET

(F/S)

CSA MEX/S 301/83

<b>1. COUNTRY</b>	Mexico	
<b>2. NAME OF STUDY</b>	Guanajuato New Railway Development Project	
<b>3. SECTOR</b>	Transportation / Railway	
<b>4. TYPE OF STUDY</b>	F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Gobierno del Estado de Guanajuato
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Japan Railway Technical Service (JARTS)	
<b>7. STUDY PERIOD</b>	Mar.1983 ~ Nov.1984 20month(s) ~	
<b>8. SITE OR AREA</b>	A line linking major cities between Apaseo el Grande and Francisco del Rincon (167km)	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
(100 million pesos)		
	Civil engineering works	169
	Electric engineering works	86
	Rolling stock bases and workshops	34
	Land acquisition (compensation)	12
	Rolling stock	131

グアナファト州高速鉄道開発計画

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

## Reasons for Cancellation:

The implementation of the proposed project was suspended in October 1983, when the Governor of Guanajuato was replaced together with his technical staff.

Because the construction of highways and the electrification of national railways are currently under way, the present Government of Guanajuato State is unlikely to reconsider the project. Therefore, the project is judged as cancelled.

## (FY1991 Overseas Survey)

After the election in 1991, the opposition party took the political power. As a result, the personnel who knows the background of this project left the state government.

# STUDY SUMMARY SHEET

(F/S)

CSA MEX/S 302/83

<b>1. COUNTRY</b>	Mexico	
<b>2. NAME OF STUDY</b>	Development Project of the Industrial Port of Tuxpan	
<b>3. SECTOR</b>	Transportation / Port	
<b>4. TYPE OF STUDY</b>	F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Comision Nacional Coordinadora de Puertos, Secretaria de Comunicaciones y Transportes
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	The Overseas Coastal Area Development Institute (OCDI)	
<b>7. STUDY PERIOD</b>	Jul.1982 ~ Nov.1983 16month(s) ~	
<b>8. SITE OR AREA</b>	Tuxpan, Veracruz State	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
As a part of industrial port development plan, Tuxpan Port Project was studied.		
(1)Industrial Port 15 berths (3,0550n)		
(2)Commercial Port Container berth 1 berth Bulk cargo berth 2 berths General cargo berth 1 berth		

トクспан工業港開発計画

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed Partially Completed Implementing Processing	Delayed or Suspended  Discontinued or Cancelled
<b>Description :</b>		
<p>Reasons for Cancellation:</p> <p>The project was suspended after the completion of the F/S.</p> <p>The project was identified as part of the industrial port development plan by the Mexican Government. The Tuxpan Port was considered as one of the development projects to support and expedite the petroleum development plan in Chicontepec Basin. Because petroleum-producing strata in the Basin were found to be very deep, the petroleum development was suspended in 1982.</p> <p>In response to the onset of severe economic crisis in 1982, the President De la Madri announced in January 1983 that the industrial port development would be limited to the Altamira Port and the Lazaro Cardenas Port. This policy has been continued by the President Sarinas who took power in December 1988.</p> <p>Under the circumstances, the development of the Tuxpan Port as an industrial port is currently suspended.</p> <p>(FY1991 Overseas Survey)</p> <p>The development of the Tuxpan Industrial Port must be suspended presently, as far as the transportation problems (railway and roads) can not be solved.</p>		

# STUDY SUMMARY SHEET

(F/S)

CSA MEX/S 303/85

<b>1. COUNTRY</b>	Mexico																	
<b>2. NAME OF STUDY</b>	Development Project of the Port of Manzanillo																	
<b>3. SECTOR</b>	Transportation / Port																	
<b>4. TYPE OF STUDY</b>	F/S																	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Comision Nacional Coordinadora de Puertos, Secretaria de Comunicaciones y Transportes																
	<b>PRESENT COUNTERPART AGENCY</b>																	
<b>6. CONSULTANT(S)</b>	The Overseas Coastal Area Development Institute (OCDI)																	
<b>7. STUDY PERIOD</b>	Sep.1984 ~ Oct.1985 13month(s) ~																	
<b>8. SITE OR AREA</b>	Manzanillo, Colima State																	
<b>9. MAJOR PROPOSED PROJECT(S)</b>																		
Manzanillo Port will be developed as a hub port in Mexico.																		
<table style="width: 100%; border: none;"> <thead> <tr> <th style="text-align: left;">Facilities</th> <th style="text-align: left;">Scale or capacity</th> </tr> </thead> <tbody> <tr> <td>- Dredging</td> <td>1,170,000 cum</td> </tr> <tr> <td>- Quaywall (-12m)</td> <td>900 m</td> </tr> <tr> <td colspan="2">(agri-bulk berths: 2 berths, container berth: 1 berth)</td> </tr> <tr> <td>- Railway</td> <td>1,500 m</td> </tr> <tr> <td>- Road</td> <td>7,500 m</td> </tr> <tr> <td>- Storage</td> <td>15,000 sqm</td> </tr> <tr> <td>- Water and electricity supply facilities</td> <td>1 system</td> </tr> </tbody> </table>			Facilities	Scale or capacity	- Dredging	1,170,000 cum	- Quaywall (-12m)	900 m	(agri-bulk berths: 2 berths, container berth: 1 berth)		- Railway	1,500 m	- Road	7,500 m	- Storage	15,000 sqm	- Water and electricity supply facilities	1 system
Facilities	Scale or capacity																	
- Dredging	1,170,000 cum																	
- Quaywall (-12m)	900 m																	
(agri-bulk berths: 2 berths, container berth: 1 berth)																		
- Railway	1,500 m																	
- Road	7,500 m																	
- Storage	15,000 sqm																	
- Water and electricity supply facilities	1 system																	

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed Partially Completed Implementing Processing	Delayed or Suspended   Discontinued or Cancelled
<b>Description :</b>		
<p>Subsequent Studies: D/D completed (Mexican Side)</p> <p>Finance: The application for an OECF loan fell through. Construction has been partly financed by the World Bank sector loan, but mostly by own funds.</p> <p>Construction:            1986 Land development behind Berth B and construction of Berth C started            1987 Cargo handling facilities behind Berth B, Berth C and petroleum tanks and associated facilities completed            1988 Land development and surface pavement behind Berth C completed            1990 A container yard and a berth behind Berth C (land reclamation started in 1990, and the Berth expected to be completed in 1991)            1992 Berth C is scheduled to be completed and to be operated from the forth quarter (FY 1991 Overseas Survey)            Feb.1993 completion of 9 Berths (FY 1992 Overseas Survey)</p>		

# STUDY SUMMARY SHEET

(F/S)

CSA MEX/S 304/87

<b>1. COUNTRY</b>	Mexico									
<b>2. NAME OF STUDY</b>	Repair Dockyard in Lazaro Cardenas									
<b>3. SECTOR</b>	Transportation / Marine Transportation & Ships									
<b>4. TYPE OF STUDY</b>	F/S									
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Banco Mexicano SOMEX								
	<b>PRESENT COUNTERPART AGENCY</b>									
<b>6. CONSULTANT(S)</b>	Overseas Ship-building Cooperation Centre (OSCC)									
<b>7. STUDY PERIOD</b>	Mar.1987 ~ Mar.1988 12month(s) ~									
<b>8. SITE OR AREA</b>	Industrial City of Lazaro Cardenas which is centrally located in the Pacific coast									
<b>9. MAJOR PROPOSED PROJECT(S)</b>										
<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Facilities</th> <th style="text-align: left;">Scale</th> </tr> </thead> <tbody> <tr> <td>Floating dock</td> <td>230m x 55m</td> </tr> <tr> <td>Work Bay</td> <td>230m x 40m</td> </tr> <tr> <td colspan="2">Repair berth and other associated facilities</td> </tr> </tbody> </table> <p>Max. size of objective ship is about 60,000 DW Type, with width below 32.2m (abt 40,000Gt) which is max. sizes of ship who can navigate the Panama Channel at present.</p> <p>Start of preparation for construction : Jan., 1990            Start of Phase I construction : July, 1990            Completion of " : Dec., 1992            Start of Phase II construction : Jan., 1995            Completion of " : Dec., 1996</p>			Facilities	Scale	Floating dock	230m x 55m	Work Bay	230m x 40m	Repair berth and other associated facilities	
Facilities	Scale									
Floating dock	230m x 55m									
Work Bay	230m x 40m									
Repair berth and other associated facilities										

ラサロカルデナス港修繕ドック整備計画

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

Reasons for Cancellation:

SOMEX initially expected to select one of its 117 subsidiary enterprises for operation and management of the proposed dockyard. However, privatization of those enterprises was completed in October 1988.

Along with the election of the new President in December 1988, top management of SOMEX was also replaced, necessitating the suspension of the proposed project.

(FY1991 Overseas Survey)

Furthermore, the privatization of the SOMEX itself was determined in 1992 and the necessary procedure is being taken including personnel transfer. The project is now judged cancelled.



## STUDY SUMMARY SHEET (Other Studies)

CSA MEX/S 605/88

<b>1. COUNTRY</b>	Mexico	
<b>2. NAME OF STUDY</b>	Air Pollution Control Plan in the Federal District	
<b>3. SECTOR</b>	Administration / Environmental Problems	
<b>4. TYPE OF STUDY</b>	Other Studies	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Departamento del Distrito Federal, Direccion General de Reordenacion Urbana y Pro Ecologia
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Pacific Consultants International (PCI) Research, Analysis and Computing	
<b>7. STUDY PERIOD</b>	Feb.1987 ~ Dec.1988 22month(s) ~	
<b>8. SITE OR AREA</b>	Mexico City Metropolitan Area	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>The study did not identify specific projects per se, but reviewed various measures for air pollution control which the Mexican Government has been either implementing or plans to implement, and evaluated the expected effects of these measures. On the basis of the findings, the study made the following recommendations:</p> <ol style="list-style-type: none"> <li>1) Introduction of the secondary air supply device for used cars;</li> <li>2) Further desulphurization of gasoline;</li> <li>3) Improvement of rules and regulations in accordance with the Environmental Law;</li> <li>4) Strengthening of the air pollution monitoring network;</li> <li>5) Institution building and manpower training; and</li> <li>6) Strengthening of surveillance over sources of pollutants.</li> </ol>		

メキシコ市大気汚染対策

<b>PRESENT STATUS</b>	In Progress or In Use
	Delayed
	Discontinued

**Description :**

## Utilization of Study:

The Study results have been incorporated into "the Integrated Air Pollution Control Program" which was commenced in 1990 and "Air Pollution Improvement Program in Mexico Valley 1995-2000" which has been implemented since Mar.1996.

## Subsequent Studies:

Feb.1989-Sep.1991 "Air Pollution Control Plan of Stationary Sources in the Metropolitan Area (F/S)" (JICA)

Jun.1993-Jul.1995 "Survey Works for the Introduction of Combustion Technology for Air pollution Control at the Federal District (M/P)" (JICA)

## Finance:

Nov. 7.1990 L/A 69,338 mil.Yen

(The Mexico City Sulfur Dioxide Emission Reduction Project)

\*Content of project:

1)Desulfurization of heavy oil

2)Desulfurization of diesel oil

Sep.27.1994 L/A Japanese Import & Export Bank(Untied Loan)

21,400 mil.Yen

. (Air Pollution Control Plan of Stationary Sources)

## Project-Type Technical Cooperation:

Jul.1.1995-Jun.30.1997 "National Center for Environmental Research and Training in Mexico"

## Others:

(FY 1996 Overseas Survey)

As anti-air pollution measures, some of the following projects have been implemented or will be implemented.

1.Regulation on the source of air pollution

a)Production and supply of improved fuel,

b)Countermeasure program against exhaust.

c)Hoy no circula "No driving Day" program.

2.Enactment of legislation

3.Monitoring on air pollution

4.Monitoring and inspection on the stationary source of air pollution

5.Inspection on vehicles

6.Reinforcement of organizations (Establishment of Metropolitan Area Environment Committee and Ministry of Environment of Federal District)

# STUDY SUMMARY SHEET

(F/S)

CSA MEX/S 305/90

<b>1. COUNTRY</b>	Mexico		
<b>2. NAME OF STUDY</b>	Improvement of the Pacific Coast Ports		
<b>3. SECTOR</b>	Transportation / Port		
<b>4. TYPE OF STUDY</b>	F/S		
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Puertos Mexicanos	
	<b>PRESENT COUNTERPART AGENCY</b>		
<b>6. CONSULTANT(S)</b>	The Overseas Coastal Area Development Institute (OCDI) Nippon Koei Co., Ltd.		
<b>7. STUDY PERIOD</b>	Mar.1989 ~ Jul.1990 16month(s) ~		
<b>8. SITE OR AREA</b>	Port of Salina cruz, Larzaro cardenas, Manzanillo, Mazatlan, Guaymas and Engenada		
<b>9. MAJOR PROPOSED PROJECT(S)</b>			
(Lazaro cardenas)		(Manzanillo)	
Pavement etc. : 49050 s.m		Dredging : 750000 c.m	
C.F.S. : 1 nos		Pavement etc. : 133000 s.m	
Gate : 1 nos		C.F.S. : 1 nos	
Utilitis : 1 nos		Quay wall : 1 nos	
Gantry Crane : 1 nos		Utilities : 1 nos	
Transfer Crane : 1 nos		Gantry Crane : 2 nos	
Others : 1 nos		Transfer Crane : 4 nos	
		Others : 1 nos	

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled
<b>Description :</b>		
<p>Improvement Plan of Each Port</p> <p>Finance:  The World Bank committed 45 million dollar loan in order to implement the improvement plan of each port (Total amount of investment: 50 million dollars). Spanish and Mexican governments also provided financial resources.</p> <p>Construction:</p> <p>(1)Manzanillo Port  Dec.1990-Jan.1993 Equipment Procurement (US\$ 5.52 million)  1989-1994 Infrastructure Development (US\$ 10.65 million)  Spanish Govt., the World Bank and Mexican Govt. provided financial resources.  1992 New container terminal, scheduled to operate.</p> <p>(2)Lazaro Cardenas Port  Dec.1990-Feb.1994 Equipment Procurement (US\$ 8.18 million)  Spanish Govt. and the World Bank provided financial resources.  1992 Container terminal, scheduled to operate construction of additional gantry crane.</p> <p>*For the realization of efficient cargo handling systems, some measures such as privatization are taken based on this study.</p> <p>Situation:  (FY 1995 Overseas Survey)  The implementation of this project has been permitted by the Administrative Office of the Port. The tasks such as consultant services to plan the construction of container terminals are included.</p>		

# STUDY SUMMARY SHEET

(F/S)

CSA MEX/S 306/94

<b>1. COUNTRY</b>	Mexico	
<b>2. NAME OF STUDY</b>	Wastewater Treatment in the Federal District of Mexico	
<b>3. SECTOR</b>	Public Utilities / Sewerage	
<b>4. TYPE OF STUDY</b>	F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Department of the Federal District (DDF)
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Pacific Consultants International (PCI)	
<b>7. STUDY PERIOD</b>	Feb.1994 ~ Feb.1995 12month(s) ~	
<b>8. SITE OR AREA</b>	Mexico DF and a part of Mexico State	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>Despite of presence of the sewage treatment system which is good for 80% of population, major portion of collected sewage is flowing into Gran Canal and Emisol Central and grow worse the water quality and the environment at the lower reach. Under these circumstances, followings will be implemented.</p> <p>1)Feasibility Study on the Master Plan drawn for:</p> <ul style="list-style-type: none"> <li>- All of collected sewage will be treated and utilized as for the irrigation water,</li> <li>- And improve the water quality and the environment at the lower reach (Target period is 2015).</li> </ul> <p>2)Detailed Design (at the primary stage) of the treatment facility by means of dirty mud activation method in order to realize the level of water quality which will meet with the level of regulation concerned settled by the government on 1992.</p> <p>3)Draw up the guidelines manuals and transfer the technologies concerned.</p>		

メキシコ連邦区下水処理計画調査

PRESENT STATUS	Completed or In Progress Completed Partially Completed Implementing Processing	Promoting Delayed or Suspended Discontinued or Cancelled
<p><b>Description :</b></p> <p>Finance: (FY 1996 Overseas Survey) Dec.5.1996 IDB Loan *Content of project:Construction of drainage and treatment plant (FY 1996 Domestic Survey) 12 March 1997 L/A 45,112 mil. Yen "Metropolitan Mexico Sanitation Project" *Content of project:Construction of four treatment plants (Texcoco Norte, Coyotepec, El Salto, Nextlalpan). *This project is co-financed by the IDB and OECF and its total cost is US\$1,053 million.</p> <p>Construction: (FY 1998 Overseas Survey) Construction works and bid have not been started.</p> <p>Situation: (FY 1995 Overseas Survey) A Private enterprise which will be with the good technological level and has the capacity to invest the fund should be selected until 2nd semester of 1996. This enterprise has to construct and operate the plant for 10 years. The implementation works will be carried on under BOT system. Definite annual amount as for the volume of treated sewage will be paid by the state. Supervision of the implementation will be done by OECF and the WB, and the audit by the Ministry of Finance of Mexican Government.</p>		

# STUDY SUMMARY SHEET

## (M/P)

CSA MEX/A 101/95

<b>1. COUNTRY</b>	Mexico	
<b>2. NAME OF STUDY</b>	Integrated Agriculture, Livestock and Rural Development in the Coast of Jalisco	
<b>3. SECTOR</b>	Agriculture / (Agriculture in) General	
<b>4. TYPE OF STUDY</b>	M/P	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	SAGAR
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Japan Agricultural Land Development Agency	
<b>7. STUDY PERIOD</b>	Jan.1995 ~ Nov.1996 22month(s) ~	
<b>8. SITE OR AREA</b>	Mexico, Jalisco State Coastal Area (8 provinces, 1.2million ha)	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>5 projects and 10 programs were proposed. Projects/ Programs with high priority are as follows.</p> <ol style="list-style-type: none"> <li>1.Farm Products for Export Promotion Program.</li> <li>2.Agricultural and Stock Farm Products Distribution Improvement Program.</li> <li>3.Agricultural and Stock Farm Products Processing Facility Project.</li> <li>4.Small-Scale Irrigation Project</li> <li>5.WID.Organization Reinforcement Program.</li> </ol>		

ハリスコ州海岸地域農牧業農村総合開発計画

<b>PRESENT STATUS</b>	In Progress or In Use
	Delayed
	Discontinued

**Description :**

The Govt. of Mexico is preparing to submit a request for assistance to implement a part of proposed projects to Japan.

(FY 1996 Overseas Survey)

According to the proposed project, 8 cities have been implementing the investment project in the year of 1996/1997.

1. "Farm Products for Export Promotion Program"

The Products Improvement Program was formulated for the production of banana, sesame, mango, melon, watermelon, sugar cane and papaya as well as the Dried Fruits Program for papaya, lemon and banana.

2. "Agricultural and Stock Farm Products Distribution Improvement Program"

The collecting place for the stock farm products was constructed and the market information system for producers was established.

3. "Agricultural and Stock Farm Products Processing Facility Project"

The packing facility for mango, melon and papaya was constructed.

4. "Small-scale Irrigation Project"

Various irrigation facilities are to be constructed in the second unit as the Fertilizer Irrigation Project is implemented.

5. "WID Organization Reinforcement Program"

The Domestic Works Training Program, including sawing, cooking, first-aid treatment and sweets making, and the program to integrate women into the producers groups are to be implemented.

(FY 1997 Domestic Survey)

JICA Expert dispatched to SAGAR is examining a realization of priority projects. T/R is being prepared to request assistance from Japan for small-scale irrigation project.

(FY 1998 Overseas Survey)

During the period of 1996-98, the following activities have been made.

1. "Farm Products for Export Promotion Program"

Principal component of the project is the application of fertilizer and irrigation technology to horticulture (water melon, melon, chile). Seeded area has been enlarged and the number of cultivations and production per hectare has been increased. Municipalities such as Cihuatlan, Casimiro Castillo, La Huerta are participating this activity. Cultivation of eggplant, cabbage, tomato, okra, macadamia for export is being introduced. Small-scale horticulture has been started in Puerto Vallarta. Seeding technology was firstly applied to Casimiro Castillo, and La Huerta from 1996 to 98, then to Tomatlan, and Cihuatlen from 1998 to 99.

3. "Agricultural and Stock Farm Products Processing Facility Project"

Two plants for processing mango for export were constructed in Tomatlan and Cihuatlen. Training regarding operation is being conducted.

Others:

SAGAR is implementing the extension of irrigation and training to the concerned producers under the program of "Alliance for Rural Area".

(FY 1999 Overseas Survey)

1. "Farm Products for Export Promotion Program"

220 Tractors equipped with harrow and plow, 40 irrigation equipment (sprinklers), 250 sprayers, 250 tracks were introduced. Advanced technology of fertilizer and irrigation are applied for 2,000 ha and the new way of sowing is used for the cultivation of water melon, melon, papaya. Therefore, quality, quantity, and productivity of the agricultural products have been greatly improved and enhanced. Okura, beans, squash for export are able to be cultivated.

2. "Agricultural and Stock Farm Products Distribution Improvement Program"

Communication network model on agricultural/livestock activities connecting both public and private institutions through the artificial satellite is under examination.

3. "Agricultural and Stock Farm Products Processing Facility Project"

The packing machines for mango, lemon, water melon, papaya, and banana were introduced. A milk collecting center and the centers for livestock shipping were constructed. Those projects are financed by federal and state government, and producers.

4. "Small-scale Irrigation Project"

Irrigation system (sprinklers) were installed at 40 sites, 25 of which are financed by both the federal government and the producers and the rest 15 of which are financed by only producers. The total investment is US\$12,000,000. Benefited area is 2,000ha and the number of beneficiaries is 300 producers.

The irrigated area development program (US\$10,000,000; first unit for 5,000ha and second unit for 5,000ha) is to be completed.

5. "WID Organization Reinforcement Program"

The training of domestic works such as including sawing, sweets making, handicrafts is conducted.

(FY 2005 Domestic Survey)

No information to be specifically mentioned.

(FY 2005 Overseas Survey)

Senior Volunteers (SV) were dispatched from October 28th 2001 to October 27th, 2004 for a follow up of the development study. SV facilitated soil conservation and improvement, farming technology improvement, and farming management improvement.

Although the activities does not mean a realisation of the project proposed in the D/S, which requires huge investments, part of the projects have been revised to possess a higher feasibility.



# STUDY SUMMARY SHEET

## (M/P)

CSA MEX/S 120/96

<b>1. COUNTRY</b>	Mexico	
<b>2. NAME OF STUDY</b>	Determination of the Investment Strategy for the Tourist Promotion	
<b>3. SECTOR</b>	Tourism / (Tourism in) General	
<b>4. TYPE OF STUDY</b>	M/P	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Pacific Consultants International (PCI)	
<b>7. STUDY PERIOD</b>	Sep.1995 ~ Dec.1996 15month(s) ~	
<b>8. SITE OR AREA</b>	Cancun, Los Cabos, Puerto Vallarta, Mazatlan, Acapulco and Huatulco	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>1.Cancun  Revitalization of Cancun Tourism Center  Formation and Reinforcement of Mundo Maya Excursion Route.  Improvement of Tourism Base in the Southern Part.</p> <p>2.Los Cabos  Tourism Development in East Cape.  Revitalization of La Paz Tourism Center  Formation of Tourism Corridor La Paz-Copa-Canyon.</p> <p>3.Puerto Vallarta  Reinforcement of Puerto Vallarta City.  Tourism Development focusing on Mestizo-Mexican Culture.</p>		

観光促進投資戦略策定のための調査

<b>PRESENT STATUS</b>	In Progress or In Use
	Delayed
	Discontinued

**Description :**

(FY 1997 Domestic Survey)

- The Ministry of Tourism reviewed the results of the JICA study for incorporating its recommendations and action plans into the new policy of tourism development and promotion.
- The Municipal Government of Benito Juarez in Cancun requested to the Federal Government the implementation of the Nipcutte Lagoon Comprehensive environment improvement project.

(FY 1998 Overseas Survey)

(1)Cancun

Documentes and information are utilized as the base of development promotion activities.

(2)Los Cabos

South Baja California Tourist Service Promotion Program was formulated based on this study.

(3)Puerto Vallarta

This study is utilized as the base for formulating the tourist promotion plan in this area.

Tourist promotion activities in this area are as follows.

- Reinforcement of regionalization strategy in the context of tourist route.
- West San Sebastian: development of accomodation for the tourists of the route of Puerto Vallarta - San Sebastian, commercialization of the same route by Tron Airline, development of infrastructure of Vallarta - mountain, road development of Mascota - Puerto Vallarta.
- Air route of Puerto Vallarta - Guadajara: commercialization of package tour for tourists from overseas.
- Start of promotion of convention center, golf courses, ecology park.
- Rural tourism in this area and neighboring area.

(FY 2000 Overseas Survey)

(1)Puerto Vallarta

The results of this Study have been utilized as the base for formulating the tourist promotion plan in this area. 45% of proposed projects has been implemented. After the next election, the government would continue to realize the proposed projects.

(2)Los Cabos

The results of this Study have been utilized as the base for formulating the tourist promotion plan in la Paz and Cabo del Este.

(3)Cancun

This study is utilized as the base for formulating the tourist promotion plan in this area.

Tourist promotion activities in this area are as follows.

- Cancun City Center: Expansion of Pedestrian Area in Tulum and Uxmal Avenue, Redevelopemnt of Las Palapas Park.
- Cancun TouristCenter: Partial Redevelopemnt of Punta Cancun Area, Tourism Promotion by Private Sector named Corazone, Accommodation-140 Hotels and 24,610 Rooms (1999),141 Hotels and 25,368 Rooms (2000) .
- Route of Mayan Culture: Tourists Agencies run 3 day trip and 7 day trip along the route of Mayan ruins.
- Investment and New Projects in Sourthern Part: Service Center in Kohunlich Archeological Site, Oxtankah, and Dzibanche. Development of Mahahual Port, Expansion of Roads(Chetumal-Bacalar(constructed), Bacalar-Mahahual(planned)).

(FY 2002 Overseas Survey)

The projects for promoting tourism and development, implemented during the period between 2001- 2002 are following:

1. Cancun1.

1-1.Training programs on tourism, targeted for tourist agents and civilians,

1-2.Establishing the Caucun Visitor Center and the Conference Center, aimed at attracting conference and activating tourist industries,

1-3.Modernizing transportation network,

1-4.Improving environment for the lake system, etc.

2. Los Cabos

2-1.Opening new hotel

2-2.Increasing domestic and international fright in Loreto, etc.

3.Cancun

3-1.Developing eco-tourism in several areas,

3-2.Implementing government-financed training programs for staff, etc.

# STUDY SUMMARY SHEET

## (M/P+F/S)

CSA MEX/A 225/98

<b>1. COUNTRY</b>	Mexico		
<b>2. NAME OF STUDY</b>	Sustainable Development Plan of Forests at Villages in Oaxaca		
<b>3. SECTOR</b>	Forestry / Forestry & Forest Conservation		
<b>4. TYPE OF STUDY</b>	M/P+F/S		
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>		
	<b>PRESENT COUNTERPART AGENCY</b>	Direction General of Forestry, Undersecretariat of Natural Resources, Secretariat of Environment, Natural Resources and Fisheries (SEMAENAP).	
<b>6. CONSULTANT(S)</b>	Japan Forest Technical Association Pasco International Inc.		
<b>7. STUDY PERIOD</b>	Jan.1997 ~ Oct.1998 21month(s) ~		
<b>8. SITE OR AREA</b>	<p>&lt;M/P&gt; Study Area of 190,000ha (at the beginning of the Study, the Study Area was approx. 160,000ha, but in the course of the Study, that area has extended to 190,000ha in consideration of administrative boundary).</p> <p>&lt;F/S&gt; Pilot Area of 13,000ha (at first, the Pilot Area was defined in 18,000ha, but this area needed to be changed due to the forest fire. For 5,000ha, affected by the fire, a Forest Management Guideline, which indicate measures to rehabilitate the damaged area, was prepared).</p>		
<b>9. MAJOR PROPOSED PROJECT(S)</b>			
<p>&lt;M/P&gt;</p> <p>A M/P was prepared as a Sustainable Forestry Development Plan for the Communities (indigenous communities of Mexico) located in the Study Area of steep mountain region in which the forest resources are practically the only natural resources. The objective of the Plan is to accomplish development of these Communities through the promotion of forest management and production. The principle of the M/P is to execute forestry operations to maintain the sustainability of various forest functions such as public and economic utilities. Based on this principle, the Plan indicated how the Communities should take measures to develop forestry operation and production. This Plan should be considered and used as a model for cases of which the Communities develop their forestry operation and production. In the M/P, some model cases are analyzed comparatively depending on forest conditions and other geographical conditions, by estimating cost, income, and profitability. And also the perspective of Communities' development is mentioned.</p> <p>&lt;F/S&gt;</p> <p>For three Communities which were selected in the Study Area (at first, four Communities had been selected, but one of them was damaged by forest fire, and therefore, it became impossible to prepare Forest Management Plan. So, for this Community, a guide on forest rehabilitation of damaged area was prepared), the Forest Management Plans were prepared for each individual and independent implementation by themselves. These Plans took various conditions of Communities into consideration, such as forest resources' situation, location, socio-economic situation, and inhabitants' opinions, in order to suggest the principle and measures on their own forestry operation. Furthermore, next ten years' operation plan was arranged based on forest classification by their functions and long term perspective of forestry management. However, it needs very long term till the wood products are obtained through the forestry management. Therefore, Feasibility was examined taking into account 90 years, that is the sum of 60 years, which is the period to start to yield from the forest renewed by this plan, and more 30 years, in which it will be able to yield stably. The judgement of feasibility was done by Present Net Value. Main contents of the forestry operation are: 1)tending (weeding, improvement cutting, and thinning), cutting (thinning and final cutting), regeneration (mainly by natural regeneration), and forest improvement in commercial forest, 2)forest improvement in fuel wood's forest, and 3)construction and maintenance of forest roads. Furthermore, the environmental impact consideration on forestry operation was conducted.</p>			

オアハカ村落林業振興計画調査

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

(FY 1999 Domestic Survey)  
 Major part of the Sierra Juarez Region, in which the Study Area located, has no relevant natural resources but forest resources, therefore, the inhabitants of the Communities earn by only agriculture in steep lands and going to foreign or domestic cities to work. However, the communities are found in poverty situation. Scales, qualities, and other conditions of forest resources that form most important resources in this region differ by each communities. But, to considerable measure, forest resources have contributed to improve living basic conditions and to generate income for inhabitant. Nevertheless, in the past, private forestry enterprises operated devastating cuttings without consideration to sustainability, therefore, pine trees, that have high commercial value, have been reducing. Consequently, it is very difficult for major part of communities to execute continuous forestry production.

Under such a situation, Oaxaca Office of SEMAENAP is making effort to improve communities' situation of this region through the forestry development. Therefore, this office expects the Forest Management Plans, prepared by this Study, will be carried out to accomplish that objective, and will contribute as a model of adequate forest management. In case of implementation, Oaxaca Office of SEMARNAP will take responsibility to offer communities technical and administrative support. However, this office has shortage of technical staff and finance to give sufficient support. So, SEMARNAP is desiring Japanese cooperation for continuation of this project. After the Study terminated, SEMAENAP has requested Japanese short term experts, and two Japanese experts (Forest Management and Forest Fire Prevention) were dispatched in relation with this project.

(FY 1999 Overseas Survey)  
 SEMARNAP Office in Oaxaca State now revises the plans of study and search the possibility to support the communities for the operation of the project. DIRECTION General of Forest will negotiate the support of JICA.

Dispatch of expert:  
 (FY 2001 Domestic Survey)  
 Short-term expert (one, Participatory Forestry Management): From Mar. to Apr.2001  
 Long-term expert (one, Technical Advice on the Rural Forestry Diffusion): Two years from Oct.2001

(FY 2003 Domestic Survey)  
 Target of the request for funds:  
 JICA Time of request: August 2002  
 Condition in relation to the realization of the request: A project to realize the plan formulated in the development studies was proposed by a local NGO, and was adopted (requested by NGO, subject to application of Development Welfare Support Project). Because the scheme of Development Welfare Support Project was abolished, the project will be implemented as a Technical Cooperation Project and is now prepared for signing of R/D.  
 Fixed contents (amount) in the case that the fund raising is realized: Amount of approximately 15 million yen

# STUDY SUMMARY SHEET

## (M/P)

CSA MEX/S 112/99

<b>1. COUNTRY</b>	Mexico	
<b>2. NAME OF STUDY</b>	Study on Development of the National Water Quality Monitoring Program in Coastal Areas	
<b>3. SECTOR</b>	Administration / Environmental Problems	
<b>4. TYPE OF STUDY</b>	M/P	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Nacional Water Comission (CNA)
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Pacific Consultants International (PCI)	
<b>7. STUDY PERIOD</b>	Jan.1999 ~ Mar.2000 14month(s) ~	
<b>8. SITE OR AREA</b>	Tampico area and nation-wide coastal areas	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
1) National Coastal Water Quality Monitoring Network Development of 10 Regional Laboratories and 16 Monitoring Site Offices 2) Tampico Area Improvement of the existing Tampico Laboratory and development of a monitoring Care Center for the National Monitoring Network.		

沿岸部水質環境モニタリング計画調査

<b>PRESENT STATUS</b>	In Progress or In Use
	Delayed
	Discontinued

**Description :**

(FY 2000 Domestic Survey)

No information is available because the political situation was changed by the election after the completion of this study.

(FY 2002 Overseas Survey)

Alteration of regime has thrown the society into confusion. However, the factors, hampered the project from progressing as planned were economic/financial problems. Despite this, it was determined to construct a laboratory at headquarter of Northern region, as continuing project, operated by CAN. There also comes possibility of building facilities for the water quality monitoring center in Altamira city of Tamaulipas state before long. Water quality monitoring program in Tampico has continued to be implemented, based on basic principles, presented in the final report of National program. The criteria, proposed by JICA experts have been adopted in National program.

(FY 2003 Overseas Survey)

Part of the observation of water quality in Altamira and Tampico city of Tamaulipas state have been conducted using there own budget.

Improvement and expansion have been conducted for local water quality institution in northern port area in Altamira of Tamaulipas state.

(FY 2004 Domestic Survey)

1. Proposed Project: National Water Quality Monitoring Program

2. Funding Party: the World Bank, and Mexican Gov. budget

3. Amount: Loan from the World Bank through "Water Quality Resource Management Project" is planned to total to 186.5 million USD from 1996 to 2005 period (part of the fund will be used for renewal, alteration, and purchasing of evaluation equipment of water quality evaluation laboratory).

4. Content: The project plans for national wide comprehensive water quality monitoring not only for coastal water but including surface water and groundwater.

5. Design/Construction progress

1) Project Name: Coastal Water Quality Monitoring Reference Laboratory Construction

2) Construction Period: Start 2000 End November 2003

3) Content: Based on the proposal of this D/S, Project-Type Technical Cooperation is planned to be implemented in improving capability of Costal Water Monitoring Reference Laboratory, as a new FY 2004 project.

6. Progress of the Implemented Projects

1) Project Name: "Coastal Water Quality Monitoring Network Empowerment Assistance Plan"

2) Benefit:

Direct Beneficiaries - local water quality analyst of CAN (13 location nation wide)

Indirect Beneficiaries - All Mexican nationals

(FY 2005 Domestic Survey)(FY 2005 Overseas Survey)

Subsequent study: Study on Development of the National Water Quality Monitoring Programme in Coastal Areas (JICA Technical Cooperation Project)

Implementing body: Mexican government State Water Committee

Situation:

August 2005: Preparatory study was completed.

Early 2006: The programme is to be started.

Relationship with the study: The Mexican government State Water Committee would implement this technical cooperation project by utilising the world bank loan funds, targeting State Water Committee Northern Coastal Area Reference Laboratory built in the Tamauripas Altamira city in 2003.

# STUDY SUMMARY SHEET

(M/P)

CSA MEX/A 118/99

<b>1. COUNTRY</b>	Mexico	
<b>2. NAME OF STUDY</b>	Integrated Agricultural , Livestock and Rural Development of the Soconusco Region ( the Rural Development District No. 8 in Tapachula ) in Chiapas	
<b>3. SECTOR</b>	Agriculture / (Agriculture in) General	
<b>4. TYPE OF STUDY</b>	M/P	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Secretariat of Agriculture, Livestock and Rural Development (SAGAR) Secretariat of Agriculture and Livestock (SAG)
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Pacific Consultants International (PCI) Naigai Engineering Co., Ltd.	
<b>7. STUDY PERIOD</b>	Jun.1998 ~ Aug.1999 14month(s) ~	
<b>8. SITE OR AREA</b>	Soconusco Region in the State of Chiapas	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
M/P:		
<ol style="list-style-type: none"> <li>1. Invigoration of Rural Society</li> <li>2. Strengthening of Agriculture and Livestock Production System</li> <li>3. Agriculture and Rural Infrastructure Development</li> <li>4. Environmental Conservation</li> </ol>		
Pre F/S: Soconusco Region ,Santa Cruz Area, Mixcum Area		
<ol style="list-style-type: none"> <li>1.Santa Cruz Area ( Improvement of agricultural and livestock production of low income farmers in the area by the following development plan. Plan for the introduction of mixed agriculture swine breeding ,Plan to strengthen technical assistance and extension services, Plan to improve agricultural with and livestock commercialization system and agro industrial promotion and Plan to improve agricultural and rural infrastructure)</li> <li>2.Mixcum Area ( Plan for the introduction of mixed agriculture with swine breeding, Plan to strengthen agricultural extension services, Plan to improve commercialization and promote agro industry and Plan to develop rural infrastructure)</li> <li>3.Plan for the Promotion of Ecological Agriculture( Promotion of sustainable agriculture, Promotion of agricultural practices using natural resource and Measure for forestry resource)</li> </ol>		

<b>PRESENT STATUS</b>	In Progress or In Use
	Delayed
	Discontinued

**Description :**

(FY2000 Domestic Survey)

Two Japanese experts(Short term experts; Sustainable agriculture specialist and small animals specialist) were requested by SAGAR to Japanese Government on 1999, however there is no information about the progress after the request.

(FY 20002 Domestic Survey)

Dispatch of experts has not been realized. Furthermore, there is no progress for the implementation.

Japanese Technical Cooperation

(FY2002 Overseas Survey)

Training experts in Japan: 1 trainee, Oct - Nov, 2002,

Dispatching experts: staying in Tapachula.

(FY2002 Domestic Survey)

The local Govt. requested for project-type cooperation, and JICA conducted contact mission in Aug 2002. However, no information is available on the status of projects.

(FY 2004 Domestic Survey)

1. Finance:

1) Proposed Project: Project on Assistance Plan for Small Producers in El Soconusco, Chiapas

2) Funding Party: Project-type Technical Cooperation

3) Amount: Approximately 150 million YEN (1st March, 2003 - 28th February, 2006)

4) Contents:

(1) Project Objectives: To become cable of conducting new projects for village development, where municipal taking a leading role with corporations from the SDR and the SAGARPA.

(2) Outcome: the following can be considered as an outcome

- New organisations to be established in 4 villages (Tapachula, Pavencul, Acagoyagua, Union Juarez) to promote new businesses.

- New businesses to be established by local initiatives in 5 villages (Pevencul, Tuzantan, Jaramillo, Los Cacaos, San Rafael), taking into account individual situations.

- Assistance will be given by SDR and SAGARPA in establishing organisation for new businesses in 4 villages.

(3) Japanese Implementation Structure

- Long-term consultants: 2 personnel (organisational management, project management/operation)

- JOCV: 3 personnel (Community Development)

(4) Short-term dispatch of experts

- August 2002 Short-term experts (Village Study)

- August-September 2004 Short-term experts (Community Development)

2. Other Progresses:

1) Project Name: Project on Assistance Plan for Small Producers in El Soconusco, Chiapas

2) Beneficiaries: Residents in Chiapas, Soconusco district

Soconusco district has 16 municipalities with 5,500 square km of land. Population is 920 thousand (1995).

(FY 2005 Domestic Survey)

No information to be specifically mentioned.



# STUDY SUMMARY SHEET

## (M/P+F/S)

CSA MEX/S 217/99

<b>1. COUNTRY</b>	Mexico	
<b>2. NAME OF STUDY</b>	Study on Solid Waste Management for Mexico City	
<b>3. SECTOR</b>	Public Utilities / Urban Sanitation	
<b>4. TYPE OF STUDY</b>	M/P+F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Gobierno del Distrito Federal, Direccion General de Servicios Urbanos (DGSU)
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Kokusai Kogyo Co., Ltd.	
<b>7. STUDY PERIOD</b>	Jun.1998 ~ May.1999 11month(s) ~	
<b>8. SITE OR AREA</b>	M/P: Mexico City (DF: Distrito Federal) F/S: Bordo Poniente Area	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>1) Introduction of a composting facility in order to minimize final disposal amount (Scale of facility: 1250 ton/day)</p> <p>2) Vertical Expansion of the existing landfill up to 24m in order to secure disposal capacity for the future waste disposed of. (Capacity secured is to be 17 million ton)</p> <p>3) Construction of a new landfill in order to secure disposal capacity for the future waste disposed of. (Site area: 250 ha, Capacity: 17million ton)</p>		

メキシコシティ廃棄物対策計画調査

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

(FY 2000 Domestic Survey)

Regarding implementation of the projects, the Mexican side requested the Japanese Government to dispatch an expert. Then, the vice-leader of the Study has been dispatched in December 2000 and is working in Mexico. At present, DGSU has prepared to implement the two of the three proposed projects, i.e., Composting Facility and Vertical Expansion of the Existing Landfill.

(FY 2002 Domestic Survey)

Construction of compost facility and enlargement of existing disposal facilities are implemented using its own capital.

(FY 2003 Overseas Survey)

A compost plant in Bordo Poniente that composts organic wastes is expected to be constructed in 2000 and formally operated from the following year after finishing the test operation stage. In the landfill of Bordo Poniente, 13 wells were constructed or placed and five more wells are expected to be constructed or placed in 2004.

(FY 2004 Domestic Survey)

Dispatch of experts: 1 personnel Solid waste treatment December 2000 - December 2003.

(FY 2004 Overseas Survey)

1. Design/construction:

1) Bordo Poniente ultimate disposal facility has completed Phase IV load test, which presented satisfactory result with no signs of ground deformation, which may result in risks of facility stability and exudation.

2) Bordo Poniente Phase IV closing project has been prepared. This includes expansion design from 12 m to 15 m, resulting in 3.85 years longer life span, usable till 2007.

2. Progress of Design/Construction: 95 percent

3. Completion:

1) Study and project related to ultimate disposal facility and compost plant has fully completed. In December 2004, the first annual geological examination will be conducted.

2) Operation of ultimate disposal plant exceeding the maximum level scheduled in FY 1992 will start from July, 2004 and will be operated until the closer according to the plan.

4. Operation/management body after completion: Technical Director of M. en C.

# STUDY SUMMARY SHEET

## (M/P)

CSA MEX/S 101/04

<b>1. COUNTRY</b>	Mexico	
<b>2. NAME OF STUDY</b>	Development Study of Environmental Management in the Caribbean Coast of Quintana Roo	
<b>3. SECTOR</b>	Administration / Environmental Problems	
<b>4. TYPE OF STUDY</b>	M/P	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Kokusai Kogyo Co., Ltd.	
<b>7. STUDY PERIOD</b>	Mar.2003 ~ Aug.2004 17month(s) ~	
<b>8. SITE OR AREA</b>	Othon P.Blanco, Felipe c. Puerto, Solidaridad	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>1. Waste water facilities development</p> <p>2.</p> <p>1) Improvement of waste collection rate, 2) implementation of safe closure of disposal site, 3) reduction of waste, 4) improvements in service fee collection system, and 5) establishment of waste management legislation</p> <p>3. Groundwater monitoring system development, and establishment and improvement of groundwater preservation</p> <p>4. Diagnose water quality, evaluate, and implement necessary measures in order to preserve coastal water environment.</p>		

ユカタン半島東部沿岸地域衛生環境管理計画 (地球環境部)

<b>PRESENT STATUS</b>	<p>In Progress or In Use</p> <p>Delayed</p> <p>Discontinued</p>
<p><b>Description :</b></p> <p>(FY 2005 Domestic Survey) No information to be specifically mentioned.</p> <p>(FY 2005 Overseas Survey) Although infrastructure development is in delay compared to infrastructure development plan noted in the MP, water distribution management plan is in progress according to proposal made in the M/P, which CAPA officials has utilised knowledge and techniques gained through the study.</p> <p>For the urban solid waste disposal management, while majority of executive officials has been replaced in SEDUM, technical staffs participated in the study has remained. On the other hand, for the regional level, majority of staffs from prior regime has been replaced, which the outcome of the study has not been passed on with low acknowledgement.</p> <p>For the model project for waste water disposal, waste water disposal system has been constructed in other village utilising experience gained from the model project joined by CAPA as a CP.</p> <p>Comprehensive solid waste management system developed with SEDUM and 3 province as a CP is still in operation, which SEDUM intends to publicise the system on the homepage in the near future.</p>	

# STUDY SUMMARY SHEET

(F/S)

CSA NIC/S 306/93

<b>1. COUNTRY</b>	Nicaragua		
<b>2. NAME OF STUDY</b>	Water Supply Project in Managua		
<b>3. SECTOR</b>	Social Infrastructure / Water Resources Development		
<b>4. TYPE OF STUDY</b>	F/S		
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	INAA INTER	
	<b>PRESENT COUNTERPART AGENCY</b>		
<b>6. CONSULTANT(S)</b>	Kokusai Kogyo Co., Ltd.		
<b>7. STUDY PERIOD</b>	Dec.1991 ~ Mar.1992 3month(s) Jun.1992 ~ Sep.1993 15month(s)		
<b>8. SITE OR AREA</b>	the area of the southern side of Lake Managua (about 880km <sup>2</sup> )		
<b>9. MAJOR PROPOSED PROJECT(S)</b>			
<p>1)Development of a new groundwater source in North Ticuantepe in the Eastern sub-area and installation of the facilities for water conveyance to the existing water distribution pond in Altamira.</p> <p>2)Development of residual groundwater sources in the Eastern sub-basin and installation of the facilities for water conveyance to the existing water distribution pond in Americas no.4.</p> <p>3)Groundwater development in the area adjacent to the east of the Study Area and installation of the facilities for water conveyance to Managua City.</p>			

マナグア市上水道整備計画調査

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed Partially Completed Implementing Processing	Delayed or Suspended   Discontinued or Cancelled
<p><b>Description :</b></p> <p>(1)Development of New Groundwater Source in Ticuantepe and Installation of Water Conveyance to Altamira Pond. Subsequent Studies: Jul.1994 B/D Commenced Feb.1995 E/N 84mil.Yen (Project for Improvement of Water System in Managua City (D/D))</p> <p>Finance: Jun.1995 E/N 1,516 mil.Yen (Project for Improvement of Water System in Managua City)</p> <p>*Components Construction of water supply system Provision of machinery for pumping and its installation FY 1996 E/N 1,393 mil.Yen (Project for Improvement of Water System in Managua City)</p> <p>Construction: Nov.1995~Mar.1998 Implementation Consulting Firm/Kokusai Kougyo, Nippon Jogesuido Sekkei</p> <p>(2)Development of Residual Groundwater Sources (FY 1996 Domestic Survey) This project is planned to be implemented as the Phase-II following to the presently-implemented Phase-I. The request is to be submitted to the Japanese Government as the 1998 grant aid project. (FY 1997 Overseas Survey) Study for Phase II was requested. Basic Study has been completed in Dec.1997. INAA is promoting legalization of land for the project. Finance: (FY 1999 Domestic Survey)(FY 1999 Overseas Survey) 11 Jan. 1999 E/N 99mil.yen. 14 May 1999 E/N 2,867mil.yen.</p> <p>Construction: (FY 1999 Overseas Survey) Phase I: May 1999 ~ Mar. 2000. Phase II: Apr. 2000 ~ Mar. 2001. *Contents: excavation of 15 wells, construction of 2 water supply tanks, construction of a pumping station, etc.</p> <p>(3)Groundwater Development in the Adjacent Area to East of Study Area (FY 1996 Domestic Survey) The development study should be implemented to formulate a long-term plan on the water source of Managua City, with considering the possibility of water intake from Lake of Nicaragua.</p>		

# STUDY SUMMARY SHEET

## (M/P+F/S)

CSA NIC/S 201/94

<b>1. COUNTRY</b>	Nicaragua	
<b>2. NAME OF STUDY</b>	Road Improvement and Rehabilitation Study	
<b>3. SECTOR</b>	Transportation / Road	
<b>4. TYPE OF STUDY</b>	M/P+F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Ministry of Construction and Transportation (MCT)
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Central Consultant, Inc. Nippon Koei Co., Ltd.	
<b>7. STUDY PERIOD</b>	Feb.1993 ~ Jun.1994 16month(s) ~	
<b>8. SITE OR AREA</b>	Whole of the country	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>Following projects of the road arrangement have been selected as for the feasible projects.</p> <p>1)Managua - Masaya (8.52km) Level or two level crossing, expansion of road width to 4 lanes, reconstruction of 2 bridges, renovation fo pavement and partial course.</p> <p>2)Managua - Masaya (17.38km)</p> <p>3)Managua - Tipitapa (4.30km) Renovation of the structure mainly</p> <p>4)Nandaime - San Venito (65.13km) Improvement of pavement including facillities for drainage and sidewalks.</p> <p>5)Telica - San Isidro (95.76km) Same as above (with a little inferior level of renovation).</p>		

ニカラグァ道路網整備計画調査

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

(1) Road  
(FY 1997 Overseas Survey)

1. Managua ~ Masaya (segment of La Morita bridge ~ Ticuantepe)  
Subsequent Study: 1998 Review, D/D (BASS-private-fund)  
Finance: 1997 Private fund  
Construction: to be started after D/D

2. Managua ~ Tipitalapa  
Subsequent Study: 1998~1999 D/D (DANIDA)

3. Rivas ~ Tola  
Subsequent Study: 1999 F/S, D/D to be carried out

4. Somotillo ~ Guasaule  
Subsequent Study: 1996~1997 B/D, D/D (IBRD US\$ 134,292)  
Construction: not started yet

5. El Crucero ~ Nejapa  
Subsequent Study: F/S  
Construction: not started yet (fund is not procured)

6. Siuna ~ Puerto Cabezas  
No schedule for F/S nor construction

7. Chinandega ~ El Viejo  
F/S not undertaken (fund is not procured)

8. Matagalpa ~ Siuna  
(Matagalpa-Santa Emilia - rehabilitation, Santa Emilia-El Tuma-La Dalia - pavement, La Dalia-Waslala - rehabilitation)  
Subsequent Study: 1996 D/D (government budget, EU, BID)  
Finance: government budget, EU, BID  
Santa Emilia-El Tuma-La Dalia US\$ 6.84 mil  
Matagalpa-Santa Emilia, La Dalia-Waslala US\$ 5.19 mil  
Construction:  
Santa Emilia-El Tuma-La Dalia  
Apr. 1997 commenced Contractor/NAP, Consulting Firm/CISCONCO  
La Dalia-Waslala  
Mar. 1997 commenced Contractor/Consortio Nacional, Consulting Firm/INACONSULT

9. Sebaco ~ Matagalpa  
Subsequent Study: Apr. 1998 F/S and D/D started (own fund)

10. La Virgen ~ Rivas (a part of Nandaime ~ Rivas ~ Penas Blancas project)  
Subsequent Study: D/D (DANIDA)  
Finance: 1995 Government budget US\$ 1,897,201.37  
Denmark Govt US\$ 13,856,223.29  
Construction: 1995 commenced Contractor/Denmark firm

11. Esteli ~ Somoto, Somoto ~ Yalaguina ~ Ocotal, Ocotal ~ Las Manos  
Apr. 1998~end of 1998 F/S, D/D and EIA are to be undertaken (BID)

(2) Bridge  
(FY 1997 Domestic Survey, Overseas Survey)

1. Sebaco, La Madera  
Subsequent Study: 1996~1997 B/D and D/D  
Study cost / 65.3 mil.yen  
Construction: 1996~Apr. 1997 Contractor/Hazama, Cousultant/Cental

2. Las Lajas  
Subsequent Study: 1995~1996 B/D and D/D  
Study cost / 65.6 mil.yen  
Construction: 1995~1996 Contractor/Hazama, Cousultant/Cental  
Finance:  
"Project for Reconstruction of Bridges in Principal highways"  
(for 1 and 2)  
Dec. 1994 E/N 518 mil.yen  
Jun. 1995 E/N 260 mil.yen  
E/N 401 mil.yen

3. Rio Leona, Telica, Cinco Cruces, La Pavona, Los Llanos  
(a part of Izapa-Leon-Chinandega)  
Subsequent Study: 1998 B/D and D/D  
Finance: IBRD, government budget  
Construction: 1998~1999  
Contractor/IMPREGILO (Italia), Consulting Firm/Federic Harris

4. Las Banderas, La Tonga, Estero Real  
Subsequent Study:  
(FY 1999 Overseas Survey)(FY 1999 Domestic Survey)  
16 Jan. 2000 E/N 82mil.yen (D/D)  
Finance:  
(FY 2000 Domestic Survey)  
May 2000 E/N 2351 mil.yen "Project for Reconstruction of Bridges in Principal highways"

5. El Venado, Mayaris

ニカラグア道路網整備計画調査



## STUDY SUMMARY SHEET (M/P+F/S)

CSA NIC/S 202/95

<b>1. COUNTRY</b>	Nicaragua																						
<b>2. NAME OF STUDY</b>	Improvement of the Solid Waste Management System for the City of Managua																						
<b>3. SECTOR</b>	Public Utilities / Urban Sanitation																						
<b>4. TYPE OF STUDY</b>	M/P+F/S																						
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Municipality of Managua																					
	<b>PRESENT COUNTERPART AGENCY</b>																						
<b>6. CONSULTANT(S)</b>	Kokusai Kogyo Co., Ltd.																						
<b>7. STUDY PERIOD</b>	Mar.1994 ~ May.1995 14month(s) ~																						
<b>8. SITE OR AREA</b>	Final disposal plan: Acahualinca sanitary reclamation disposal plant																						
<b>9. MAJOR PROPOSED PROJECT(S)</b>																							
<p>1)Improvement in collecting and cleaning system at public area.                  2)Improvement in existing Los Cocos workshop.                  3)Promotion on community consciousness and participation.                  4)Construction of Acahualinca new final disposal plant.</p>																							
<p>*PROJECT COST (US\$1,000 / C\$1,000,000 / 1US\$=C\$7.1183 / 1C\$=Yen14.357)</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">M/P</th> <th style="text-align: left;">Total(C\$mil.)</th> <th style="text-align: left;">Local Cost(C\$mil.)</th> <th style="text-align: left;">Foreign Cost(US\$1,000)</th> </tr> </thead> <tbody> <tr> <td>1)</td> <td>114.33</td> <td>47.12</td> <td>9,439</td> </tr> <tr> <td>2)</td> <td>11.50</td> <td>0.88</td> <td>1,492</td> </tr> <tr> <td>3)</td> <td>0.68</td> <td>-</td> <td>46</td> </tr> <tr> <td>4)</td> <td>148.57</td> <td>20.52</td> <td>17,989</td> </tr> </tbody> </table>				M/P	Total(C\$mil.)	Local Cost(C\$mil.)	Foreign Cost(US\$1,000)	1)	114.33	47.12	9,439	2)	11.50	0.88	1,492	3)	0.68	-	46	4)	148.57	20.52	17,989
M/P	Total(C\$mil.)	Local Cost(C\$mil.)	Foreign Cost(US\$1,000)																				
1)	114.33	47.12	9,439																				
2)	11.50	0.88	1,492																				
3)	0.68	-	46																				
4)	148.57	20.52	17,989																				

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

The municipality of Managua desires the implementation of the project including the construction of disposal plant. Existing disposal plant in Managua city will be filled within 4~5 years. Technology guidance by the study team has been highly evaluated owing to the success on pilot project implemented in this study. Dispatch of experts is expected.

(FY 1997 Overseas Survey)

Municipality of Managua has carried out activities as follows. Fund has not been procured yet for remaining projects.

(1)Improvement in gathering and cleaning system at public area

Expansion of collection service area by introducing new route

Installation of containers(15 cu.m)

(2)Construction of Acahualinca new final disposal plant

Legalization of land for construction of disposal plant

Subsequent Study:

(FY 1997 Overseas Survey)

B/D implementing

Finance:

(FY 1997 Overseas Survey)(FY 1999 Overseas Survey)

Request for financial assistance was submitted to Japanese government in January 1996.

\*Contents of the request: provision of equipment/materials for operating the system, construction of the new final disposal plant, the improvement in existing Los Cocos workshop, promotion on community consciousness and participation.

(FY 2001 Domestic Survey)

Own fund ( 2 million Cordoba)

Japanese Technical Cooperation (Dispatch of Expert):

(FY 2001 Domestic Survey)

Period: From Apr. to May 2000

Dispatched agency: Managua city

Fields: Waste Treatment Planning (1)

Geological Evaluation / Civil Planning (1)

Environment Evaluation (1)

Detail:

(FY 1998 Domestic Survey)

Japanese government pointed out that financial inability caused the failure in privatizing the collecting system, and proposed that the project contents should be changed and environmentally re-assessed. Priority of the project is reviewed, considering the rehabilitation of the damage by hurricane.

FY 1999 Overseas Survey)

Since Acahualinca was flooded by the hurricane Mitch, it was excluded from the candidate sites. Three JICA experts are to be dispatched for selection/evaluation of the candidate site for a new disposal plant.

(FY 2001 Domestic Survey)

Three experts were dispatched to Managua city from Apr. to May 2000. As the result of survey by the experts, the location of future disposal plant was selected in CHILITEPE-SOUTH among 5 proposed sites. They said that the proposed site for the disposal plant was far from the city center and needed a large investment like a relay site, therefore, the proposal was made to develop sanitary conditions of the exist plant in order to make the present function longer for the time being. As the reaction to this proposal, Managua city secured 2 million Cordoba for the betterment of exist Acahualinca disposal plant and the betterment works are scheduled to start in Oct.2001. Moreover, Managua city made a request on dispatch of Japanese experts for the purpose of the technical advice, however, the request was not adopted because of the delay of its submit.

(FY 2005 Overseas Survey)

Municipality of Managua has requested the Japanese Government for a technical and financial assistance for small-scale enterprise development, assistance, and strengthening as well as improving living standards on health, employment, and sanitation aspects.

Several subsequent projects and studies has been conducted. For an examples, improvement of solid waste collection system has been implemented with a Yen loan, construction of gas well in Acahualinca final disposal plant has been implemented with a loan from IADB, and improvement of Los Cocos disposal plant is made with own fund.

## STUDY SUMMARY SHEET (M/P+F/S)

CSA NIC/S 215/97

<b>1. COUNTRY</b>	Nicaragua	
<b>2. NAME OF STUDY</b>	Sanitation and Improvement of Urban Environment of Principal Cities	
<b>3. SECTOR</b>	Public Utilities / (Public Utilities in) General	
<b>4. TYPE OF STUDY</b>	M/P+F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Kokusai Kogyo Co., Ltd.	
<b>7. STUDY PERIOD</b>	Jul.1996 ~ Dec.1997 17month(s) ~	
<b>8. SITE OR AREA</b>	1. Urban area in Granada 14.3m <sup>2</sup> 2. Rural poor area 1.31 km <sup>2</sup>	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
(F/S)		
<ol style="list-style-type: none"> <li>1. Improvement of solid water management system.</li> <li>2. Improvement of the urban environment for the model city.</li> </ol>		

地方主要都市衛生環境整備計画

PRESENT STATUS	Completed or In Progress Completed Partially Completed Implementing Processing	Promoting Delayed or Suspended Discontinued or Cancelled
<p><b>Description :</b></p> <p>(FY 1998 Domestic Survey) The environment statement for the new disposal site was approved by the Ministry of Environment in 1998.</p> <p>(FY 1999 Overseas Survey) In April 1998, the request for Japan's grant aid for the provision of equipment/materials for waste collection in Granada, Leon, and Chinandega was submitted (435.72mil.yen).</p> <p>(FY 2001 Domestic Survey) As the government of Nicaragua put the highest priority on "Improvement of the Solid Waste Management System for the City of Managua" studied in 1995 by JICA, the proposed projects by this Study seems unlikely to be realized under the situation that the priority project is not realized.</p> <p>(FY 2002 Overseas Survey) Granada City attempts at capacity building for implementing "Improving System for Waste Treatment", as part of its projects, environmental team will be organized in 2003. Garbage collection point was constructed in Villa Sandino district.</p> <p>(FY 2003 Overseas Survey) Based on the result of the studies, funds to implement the "Review and Revision" study in the first quarter of 2004 was requested to the "Casa de Tres Mundos" fund. At the time when the aforementioned review and revision are completed in April 2004, a formal request for support to the implementation of this project in Granada City and Nicaragua will be made in order to facilitate the introduction and the implementation of the project.</p>		

# STUDY SUMMARY SHEET

## (M/P)

CSA NIC/S 108/98

<b>1. COUNTRY</b>	Nicaragua	
<b>2. NAME OF STUDY</b>	Comprehensive Transportation Plan in the Municipality of Managua	
<b>3. SECTOR</b>	Transportation / Road	
<b>4. TYPE OF STUDY</b>	M/P	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Municipality of Managua
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	ALMEC Corporation Yachiyo Engineering Co., Ltd.	
<b>7. STUDY PERIOD</b>	Jan.1998 ~ Feb.1999 13month(s) ~	
<b>8. SITE OR AREA</b>	Entire municipality of Managua	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<ol style="list-style-type: none"> <li>1. Road Development(including a toll way of 88.6km): construction 225.9km; widening 101.1km</li> <li>2. Public Transport <ul style="list-style-type: none"> <li>-Development of public transport corridor(Busway)</li> <li>-Development of 6 public transport terminals</li> </ul> </li> <li>3. Traffic Management <ul style="list-style-type: none"> <li>-Intersection improvement (installation or upgrading of 259 signals)</li> <li>-Development of pedestrian/bicycle path</li> <li>-Transport Demand Management (TDM)</li> </ul> </li> </ol>		

<b>PRESENT STATUS</b>	<p style="text-align: center;">In Progress or In Use</p> <p style="text-align: center;">Delayed</p> <p style="text-align: center;">Discontinued</p>
<p><b>Description :</b></p> <p>(FY 1999 Domestic Survey)  Dispatch of an urban transport expert from Japan was planned in order to follow-up the formulated M/P(as of Nov. 1998). However, no candidates were found.  As for the proposed projects, the interest of donors including Japan Embassy, World Bank, and Inter-American Development Bank is currently directed toward the restoration of the country which was deeply damaged by Hurricane Mitch that hit Nicaragua in November 1998, and therefore no progress has been made yet .</p> <p>(FY 1999 Overseas Survey)  Municipality of Managua has implemented the intersection improvement project. 18 signals were installed at the municipal center.  Experts are to be dispatched from Japan. They will support Municipality of Managua to plan the priority projects.  Financing from IDB was proceed for implementing the F/S on busway.</p> <p>(FY 2000 Overseas Survey)  Municipality of Managua constructed 5 circular arch roads (Centoamerica, Universitaria, Larreynaga, Jean Paul Genie, Periodista) to interconnect 5 mainroads. In order to expand road network and to reconstruct bus network, F/S on municipal busway system has been implemented.</p> <p>(FY 2002 Overseas Survey)  The activities of General Plan of City Maguana are as follows:  1.Transportation1.  1-1.F/S for "Urban development program, and improving public transport", which was implemented by Spanish Funds, was confirmed on the JICA's proposal (especially, on specific transportation roads). Study on technical, economic, financial, legal, environmental feasibility was conducted. Utilization of alternative roads for cars and reorganization of lines including these roads were examined.  1-2.Technical survey on reformation of bus transportation route was carried out.  1-3.Constructing terminal facilities for Maguana City:  3 terminals were constructed by Grant Aid (11 mill. Dollars, under contract with Hazama Corporation).  1-4.Constructing bridges for cars in Maguana City:  11 bridges were constructed by Loan Aid (4.68 mill. Dollars, under contract with Hazama Corporation).  1-5.Renovating transport vehicles: to be carried out on domestic funds.  2.Construction of roads:  Under practice.</p> <p>(FY 2003 Overseas Survey)  The study in relation to the FS of the "Busway Road No.1 (North Street)"was approved in the framework of strengthening and modernization of ALMA, commenced in 2000 and completed in February 2002. The project obtained financing of 450,000 US dollars worth of funds from Spain. Based on the result of the studies, construction has been implemented in succession on its own funds.</p>	

# STUDY SUMMARY SHEET

## (M/P+F/S)

CSA NIC/A 205/00

<b>1. COUNTRY</b>	Nicaragua	
<b>2. NAME OF STUDY</b>	The study on Agricultural Development for the Region 2 and 4 in the Pacific Coast	
<b>3. SECTOR</b>	Agriculture / (Agriculture in) General	
<b>4. TYPE OF STUDY</b>	M/P+F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	The Ministry of Agriculture and Live Stock: MAG
	<b>PRESENT COUNTERPART AGENCY</b>	The Ministry of Agriculture, Livestock and Forestry: MAG-FOR
<b>6. CONSULTANT(S)</b>	Pacific Consultants International (PCI) Asia Air Survey Co., Ltd.	
<b>7. STUDY PERIOD</b>	Jun.1997 ~ Jun.2000 36month(s) ~	
<b>8. SITE OR AREA</b>	M/P: The Region II and IV in the Pacific Coast F/S: (1) Telica area, (2) El Espino Area, (3) Model Development Area (Pacific Coast Region II)	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>M/P:</p> <ul style="list-style-type: none"> <li>- Model Projects: Telica Area Development Project, Malacatoya Area Development Project, El Espino Area Development Project, Carazo, Masaya Area Project.</li> <li>1) Increase agricultural productivity, 2) organization of farmers, 3) integrated agricultural development that includes farmer assistance components that centers branding of agricultural projects</li> <li>- Irrigation Projects: El Sauce Irrigation Project, Cayanlipe Irrigation Project, Zarzales Irrigation Project</li> <li>- Road Rehabilitation Project: Village Road Maintenance Project</li> <li>- Seed Production Projects: Basic Grain Seeds Production Project (Region II) - Construction of seed production processing center, production/distribution of good seeds.</li> <li>CESASUR Support Project (Region 4) - Construction of Basic Grains and Vegetable Seeds Production Center</li> <li>- Experimental Research Project: Rehabilitation of Cotton Research Center</li> <li>-Strengthening of Extension Services Project: Strengthening of Extension Services Project</li> <li>-Marketing: Market Information Gathering and Extension Strengthening Project</li> <li>-Farmers' Organizations: Farmers' Organizations Strengthening Project, Strengthening of Supporting Institutions of Farmers' Organizations, Formation of Communal Leaders, Communal Association Formation Strengthening Project</li> <li>-Agricultural Credit: Development of Agricultural Credit System for Small and Medium Scale Farmers</li> <li>-Environmental Protection Project: Seedling Production for Reforestation Project, Silvi-agricultural Areas Reforestation Project, Erosion Protection Project</li> </ul> <p>F/S: Project name (1) Agricultural development model plan for the TELICA area. (2) Agricultural Development odel plan for the El Espino area, (3) Agricultural development model plan.</p>		

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

(FY 2001 Domestic Survey)

MAG-FOR, the counter part organization in Nicaragua, understands the purpose and importance of this project, and recognizes that the first step of the development, which is the execution of the plan, will contribute to the small-scaled farmers in the future.

Therefore, at present, MAG-FOR prepares the project application for the international financial institutions including Inter-American Development Bank.

The engineer of Pacific Consultants International who was engaged in the development research of JICA, is in the neighbor country Costa Rica at present, therefore, an administrative officer of MAG-FOR and a Japanese expert visited there for an advanced case research in Aug. 2001 in view of the execution of this project.

(FY 2003 Domestic Survey)

The Irrigation Team (DGDT) implemented the operation plan in coordination with Japanese experts based on the suggestions made in the studies. The following results were yielded.

- a) Selection of 31 places out of 55 candidates.
- b) The study report was reviewed in terms of the description that implementation of the study was difficult in the Regions II and IV.
- c) Specific proposals were made about prerequisites in connection with implementation of the execution process of model agriculture development, enhancement of irrigation and drainage unit, development of cultivation techniques system by dissemination through UNAN |Leon and INTA, and reinforcement and fosterage of producer groups.

(FY 2004 Domestic survey)

No special matters.

(FY 2004 overseas survey)

No special matters.

(FY2005 Domestic Survey) (FY2005 Overseas Survey)

Fund has not yet been secured.



# STUDY SUMMARY SHEET

## (M/P+F/S)

CSA NIC/S 223/02

<b>1. COUNTRY</b>		Nicaragua
<b>2. NAME OF STUDY</b>		The Study on Vulnerability Reduction for Major Roads in the Republic of Nicaragua
<b>3. SECTOR</b>		Transportation / Road
<b>4. TYPE OF STUDY</b>		M/P+F/S
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Ministry of Transport and Infrastructure (MTI)
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>		Oriental Consultants Co., Ltd. Japan Engineering Consultants Co., Ltd.
<b>7. STUDY PERIOD</b>		Jan.2002 ~ Jan.2003 12month(s) ~
<b>8. SITE OR AREA</b>		M/P: Part of National Roads, including 1)El Espino - San Benito (NIC. 1), 2)Sebaco - Jinotega (NIC. 3), 3) Matagalpa - Da Lida (NIC. 5), 4)Yalaguina - Las Manos (NIC. 15), 5)Chinandega - Guasaule (NIC. 24), 6)Telica - San Isidro (NIC. 26) F/S: Part of National Roads, including 1)El Espino - San Benito (NIC. 1), 2)Sebaco - Jinotega (NIC. 3), 3) Matagalpa - Da Lida (NIC. 5), 4) Telica - San Isidro (NIC. 26)
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>M/P: To implement stability surveys at 6 national roads in total, and to identify disaster critical spots</p> <p>F/S: To propose Counter measures for the 30 disaster prevention spots, to divided them into 3 groups in consideration of economic impact, and to prepare manuals for 5 types of mission (Disaster prevention survey, disaster prevention planning, design / construction, maintenance / operation, design criteria / drawings).</p> <p>[Nic.1] (Total 6 sites) Junquillal(Gabion mat), San Nicolas(Gabion mat), N001AA280 (Horizontal drainage), Las Chanillas(Concrete Block), San Ramon(Gabion Ma), N001A290 (Removal of loose rocks, installation of netting and drainage)</p> <p>[mNIC.3](Total 3 sites) N003B400(Cutting and drainage), N003B370(Cutting and drainage), N003B320(Retaining wall and fill, drainage and re-vegetation)</p> <p>[NIC.26](Total 3 sites) N026B160(Remoal of loose rocks), Papalon(Gabion mat and riprap with mortar), Solis(Gabion mat and riprap with mortar)</p> <p>Package 2</p> <p>[NIC.3](Total 1 sites) El Guayacan(New bridge)</p> <p>[NIC.5](Total 1 sites) N005A010(Cutting and drainage)</p> <p>[NIC.26](Total 5 sites) N026A060(Cutting, shotcrete and drainage), La Banderita (Masonry wall and Gabion mat), N026B140(Cutting, shotcrete, horizontal drainage), N026A150 (Cutting, drainage, and lateral carriageway drainage), San Juan de Dios(Gabion mat)</p> <p>Package 3</p> <p>[NIC.1](Total 7 sites) N001A240(Removal of loose rocks, installation of netting), N001B230(Removal of loose rocks, installation of netting), N001B170(Cutting and drainage), N001B150(Cutting, shotcrete and drainage), N001B120(Cutting and drainage), Rio Inali(Gabion mat and stone masonry), Rio Tapascoli(Gabion mat)</p> <p>[NIC.3](Total 4 sites) N003C230(Cutting and concrete protect with vegetation, and lower down embankment plus drainage), N003E170(Cutting, drainage, concrete dam and culvert beneath road), N003C150(Cutting and drainage above road, embankment, Vegetation and drainage below), N003C140(Cutting with drainage and horizontal drainage above road, embankment, vegetation, and drainage below)</p>		

主要道路網の自然災害に対する脆弱性診断及び道路防災計画調査

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

(FY 2003 Domestic Survey)

In order to implement counter measure project against disaster critical spots, which are consisted of 7 spots for slopes, and 1 spot for scouring of bridge foundation, on the NIC3 proposed by the study, Nicaraguan government requested Japanese government in 2003 to provide the necessary assistance.

(FY 2003 Overseas Survey)

The Japanese government determined to dispatch two Japanese volunteers in order to allow the person in charge of the organization in question of Nicaragua to acquire the knowledge about utilization of the road disaster prevention manual.

(FY 2004 Domestic Survey)

No information to be specifically mentioned.

(FY 2004 Overseas Survey)

1. Grant Aid

Grant Aid of 9.2 million USD. This includes construction of dam and land slide prevention and maintenance. Although the request has been made for disaster prevention for a major road in 2002, there has been no reply.

2. Progress:

1) Due to a restrictive finance, MTI is conducting a construction to mitigate the disaster only for a site which requires immediacy.  
2) Accepted 2 JOCV in 2004. They have visited major road site included in the fragility survey target area and has prepared a inspection manual for irrigation, slope, and bridge. All of these activities have been conducted with a corporation with traffic department of MTI. In the first year's activity with the MTI, they have prepared the following report.

- Identification of road disaster nad its cause.  
Inspection of Sebaco-Jinotega (NIC. 3) km135+433 promo hill site and reclaimed hill. Inspection of irrigations between Telica - San Isidro (NIC. 26) km 167km to 171km. Slope inspection between El Espino - San Benito (Nic. 1). Inspection of major site bwtween Sebaco - Matagalpa (Nic. 3). Inspection of 69km point in Nan Daimé - beniaus Brankas (Nic. 2). Preparatory inspection of major road. Inspection of 6 bridges.

(FY 2005 Domestic Survey)

The study team was working to realise the project though was not selected. Parts of the project road damaged by the Hurricane "Mitch" were rehabilitated with a financial support from other countries. Thus, there is a possibility of conducting similar project, which implementation of the project is prospected to be difficult.

# STUDY SUMMARY SHEET

## (M/P)

CSA NIC/S 101/04

<b>1. COUNTRY</b>	Nicaragua		
<b>2. NAME OF STUDY</b>	The Maser Plan Study on Forest Management for Disaster Prevention in the Northern Pacific Region in the Republic of Nicaragua		
<b>3. SECTOR</b>	Social Welfare / Disaster Relief		
<b>4. TYPE OF STUDY</b>	M/P		
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>		
	<b>PRESENT COUNTERPART AGENCY</b>		
<b>6. CONSULTANT(S)</b>	Sanyu Consultants Inc.		
<b>7. STUDY PERIOD</b>	Dec.2000 ~ Oct.2004 46month(s) ~		
<b>8. SITE OR AREA</b>	Chinandega prefecture (9 cities), Leon prefecture (10 cities), and Managua prefecture (1 city): total of 20 cities		
<b>9. MAJOR PROPOSED PROJECT(S)</b>	<p>Natural forest management: 16,500 ha  Forestation: 7,700ha  Agroforestry: 11,600ha  Silvopastoral: 15,000ha  Total: 50,800ha</p> <p>Afforestation facilities: 22,297  Home garden: 175ha  Improved stove: 1,750  Gravity irrigated land: 2,310ha  Diversifying agriculture products: 2,310ha  Compost production: 2,310 households  Improved pasture cultivation: 1,500ha</p>		

北部太平洋岸地域防災森林管理計画 (地球環境部)

<b>PRESENT STATUS</b>	In Progress or In Use
	Delayed
	Discontinued

**Description :**

(FY 2005 Domestic Survey)

Participatory forest management plan is planned to be implemented in 3 cities and 9 villages in Leon. The objectives of the project is to improve living standard of local people and to increase water conservation capacity of the forest through sustainable activities of the local people by building capacities for forest management techniques, utilising the experience gained in the study.

(FY 2005 Overseas Survey)

Subsequent study: Disaster prevention forest management B/D

Implementing body: JICA

Objective: To implement activities for disaster prevention forest management action program proposed in the study, participated by local people, local authority, and officials from regional experts of Forestry Department Master Plan project, and to decide implementation method in accord with the plan.

Funding:

Funding party: JICA

Amount: 200 million USD

## STUDY SUMMARY SHEET (M/P+F/S)

CSA NIC/S 201/05

<b>1. COUNTRY</b>	Nicaragua		
<b>2. NAME OF STUDY</b>	The study on improvement of water supply system in Managua in the Republic of Nicaragua		
<b>3. SECTOR</b>	Public Utilities / Water Supply		
<b>4. TYPE OF STUDY</b>	M/P+F/S		
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>		
	<b>PRESENT COUNTERPART AGENCY</b>		
<b>6. CONSULTANT(S)</b>	Nihon Suido Consultants Co., Ltd. Asia Air Survey Co., Ltd.		
<b>7. STUDY PERIOD</b>	Jul.2004 ~ Nov.2005 16month(s) ~		
<b>8. SITE OR AREA</b>			
<b>9. MAJOR PROPOSED PROJECT(S)</b>			

ニカラグア国マナグア市中長期上水道施設改善計画調査 (地球環境部)

<b>PRESENT STATUS</b>	Completed or In Progress Completed Partially Completed Implementing Processing	Promoting Delayed or Suspended Discontinued or Cancelled
<p><b>Description :</b> (FY 2006 Domestic Survey) No information to be specifically mentioned.</p>		

## STUDY SUMMARY SHEET (Basic Study)

CSA PAN/S 501/81

<b>1. COUNTRY</b>	Panama	
<b>2. NAME OF STUDY</b>	Topographic Mapping Project of the Caribbean Coastal Area	
<b>3. SECTOR</b>	Social Infrastructure / Survey & Mapping	
<b>4. TYPE OF STUDY</b>	Basic Study	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Instituto Geografico Nacional
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	International Engineering Consultants Association	
<b>7. STUDY PERIOD</b>	Jan.1979 ~ May.1980 16month(s) ~	
<b>8. SITE OR AREA</b>	Northwest region along the Caribbean coast(8,000 sq.m)	
<b>9. MAJOR PROPOSED PROJECT(S)</b>	National base maps (scale:1/50,000, 12 plates)	

カリブ海沿岸地区地図作成事業

<b>PRESENT STATUS</b>	In Progress or In Use
	Delayed
	Discontinued

**Description :**

## Utilization of the Study:

The result of the study is utilized especially in electric communication, broad casting and social infrastructure. The map will be utilized for the future development planning of the area.

## (FY 1995 Overseas Survey)

In December 1995, Instituto Geografico National was Provided the equipment necessary to produce Topological maps by JICA.

The production of Topological maps are strongly desired in Panama because many of the existing maps are considered inaccurate.



## STUDY SUMMARY SHEET (Basic Study)

CSA PAN/A 501/83

<b>1. COUNTRY</b>	Panama	
<b>2. NAME OF STUDY</b>	Fisheries Resources Survey of the Atlantic Coast	
<b>3. SECTOR</b>	Fishery / Fishery	
<b>4. TYPE OF STUDY</b>	Basic Study	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Bureau of Marine Resources, Department of Commerce and Industry
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Universal Fisheries Inc.	
<b>7. STUDY PERIOD</b>	Jun.1981 ~ Mar.1984 33month(s) ~	
<b>8. SITE OR AREA</b>	In the water basin within 200 nautical miles, deeper than 100m, in the offshore of Caribbean Sea of Republic of Panama	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>The main objection of this study is to make up basic datas of fisheries resources distribution in Carrebean sea area. The study is considered to distribute the nation's large and middle scale fisheries.</p> <p>-Survey of fishery development in the shore of the Atlantic Ocean (1981,82,83). -Improvement of fishing base.</p>		

大西洋岸漁業資源調査

<b>PRESENT STATUS</b>	In Progress or In Use  Delayed  Discontinued
<b>Description :</b>  Utilization of the Study: (FY 1993 Overseas Survey) This study drew international attention to the fisheries resources of the Atlantic Ocean. Three groups of private firms including Japanese firms are interested in investing in the fishery. The result of the study is fully utilized. The final report is well utilized as an explanation note to these groups and as basic document for authorization of fishery right in the Department of Commerce and Industry.  (FY 1995 Overseas Survey) The fisheries resources of the Atlantic Ocean needs to be developed. The study report is considered to be very useful for its development.	

# STUDY SUMMARY SHEET

(F/S)

CSA PAN/S 301/84

<b>1. COUNTRY</b>	Panama	
<b>2. NAME OF STUDY</b>	Short-Wave Broadcast Station Project	
<b>3. SECTOR</b>	Communications & Broadcasting / Broadcasting	
<b>4. TYPE OF STUDY</b>	F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Ministry of Interior and Justice
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	NHK Integrated Technology	
<b>7. STUDY PERIOD</b>	Jun.1984 ~ Jan.1985 7month(s) ~	
<b>8. SITE OR AREA</b>	Entire country	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
Necessary experimental equipment and facilities are proposed to undertake the following services. 1)Domestic broadcasting (short-wave). 2)International broadcasting (short-wave). 3)International broadcast relay.		

短波放送施設建設計画

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

The reasons for Cancellation:

(FY 1991 Overseas Survey)

The hearing of the project was impossible owing to the political and economic disorder caused by the American invasion.

(FY 1995 Overseas Survey)

Since the break-down of the military government there has been no need to broadcast the propaganda to the world with short-wave.

Because the latest technology, such as the optic fiber, is on higher demand than short-wave, the resumption of the proposed project seems to be unlikely.

# STUDY SUMMARY SHEET

(F/S)

CSA PAN/S 302/84

<b>1. COUNTRY</b>	Panama	
<b>2. NAME OF STUDY</b>	Urban Transport Project in the Panama Metropolitan Area (ESTAMPA II)	
<b>3. SECTOR</b>	Transportation / Urban Transportation	
<b>4. TYPE OF STUDY</b>	F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Ministry of Public Works
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Yachiyo Engineering Co., Ltd.	
<b>7. STUDY PERIOD</b>	May.1983 ~ Jan.1985 20month(s) ~	
<b>8. SITE OR AREA</b>	Panama Metropolitan Area	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>1) Construction of Corredor Norte and arterial roads connecting thereto.</p> <ul style="list-style-type: none"> <li>- Corredor Norte</li> <li>- Via El Paical Extension</li> <li>- Via Martin Sosa Extension</li> <li>- Via Cerro Ancon Extension</li> <li>- Via San Miguelito Oeste</li> </ul> <p>2) Existing Road Improvement Projects</p> <ul style="list-style-type: none"> <li>- Via Espana</li> <li>- Via Bolivar, San Miguelito Intersection</li> <li>- Via Cerro Ancon</li> <li>- Via El Paical</li> </ul> <p>3) Bus Center Projects (four bus centers)</p> <p>4) Bus Maintenance Center Project</p>		

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

(1) New construction of Trunk Road

Subsequent Study:

D/D completed (IDB loan)

(Consulting firm: Lavalin International of Canada)

Finance:

(FY 1997 Overseas Survey)

Jul. 1995 Private fund US\$ 328,767,614

1-North Corridor (Corredor Norte)

(FY 1995 Overseas Survey)

May 1995 PYCSA, a Panamanian representative of a Mexican Contractor, obtained the approval to be the contractor of Corredor Norte as well as of Panama-Colon express highway.

\*Contents of project: 1st Stage Albrook-San Miguelito

(FY 1998 Domestic Survey) Opening.

2nd Stage San Miguelito-Tucumen

2-Panama - Colon Highway

(FY 1997 Overseas Survey)

\*Contents of project

Panama City ~ Madden

Manei ~ Colon

Construction:

(FY 1996 Domestic Survey)

A Mexican Construction Company has been implementing the Construction. The road is scheduled to be open to traffic in 1997.

(2) Road Improvement Project

Finance:

A Mexican construction company is expected to fund the project.

(FY 1996 Overseas Survey)

Construction:

Footbridge was constructed at crosspoint of Martin Sosa, San

Miguelito, Domingo Diaz.

Bus stops were set up at more than 30 points.

(FY 1995 Overseas Survey)

(3) Bus Center Project

Finance:

A Mexican construction company is expected to fund the project.

(FY 1996 Overseas Survey)

Construction:

New bus center was established in front of Panama University.

(FY 1995 Overseas Survey)

Situation:

The construction site for a bus center has been changed from that proposed in this study. (FY 1996 Domestic Survey)

## STUDY SUMMARY SHEET (Basic Study)

CSA PAN/A 502/84

<b>1. COUNTRY</b>	Panama	
<b>2. NAME OF STUDY</b>	Survey for the Forest Inventory	
<b>3. SECTOR</b>	Forestry / Forestry & Forest Conservation	
<b>4. TYPE OF STUDY</b>	Basic Study	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	National Direction of Renewable Natural Resources
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Japan Forest Technical Association	
<b>7. STUDY PERIOD</b>	Dec.1982 ~ Mar.1985 27month(s) ~	
<b>8. SITE OR AREA</b>	An area of 1,534 sq.km of Donoso District in Colon State of Panama	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>Guideline for forestry development plan in undeveloped area in Donoso District in Colon State was prepared containing the following components:</p> <ol style="list-style-type: none"> <li>1)Introduction of forest planning system;</li> <li>2)Promotion of forest products industry;</li> <li>3)Enforcement of land use planning; and</li> <li>4)Enrichment of forest experimentation and study.</li> </ol>		

<b>PRESENT STATUS</b>	In Progress or In Use
	Delayed
	Discontinued

**Description :**

## Utilization of the Study:

(FY 1991 Overseas Survey)

Technology and methods which were transferred to Panama during the study are utilized in the formulation of guidelines for forest resources development.

(FY 1995 Overseas Survey)

Because the Panamenian Government is satisfied with the JICA study, it desires JICA to conduct new surveys in other areas.

(FY 1997 Overseas Survey)

The results of the study were utilized to draw up "Panama Forestry Action Plan". Moreover, the study is used as reference for several types of surveys undertaken by INRENARE, Fundacion PANAMA, CONFOREC S.A., Simons Reid Collins, etc.

## "Sustainable Forestry Development in Donoso District"

(FY 1997 Overseas Survey)

## Subsequent Study:

Jul.1996~Dec.1997

"Forest Inventory" and biodiversity / socioeconomic information have been actualized.

Implementing Organization / INRENARE

## Finance:

Nov.1995 Government budget B.372,800 (including a cost for survey)



# STUDY SUMMARY SHEET

(F/S)

CSA PAN/S 303/87

<b>1. COUNTRY</b>	Panama	
<b>2. NAME OF STUDY</b>	Corredor Sur Development Project in the Panama Metropolitan Area (ESTAMPA III)	
<b>3. SECTOR</b>	Transportation / Urban Transportation	
<b>4. TYPE OF STUDY</b>	F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Ministry of Public Works
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Yachiyo Engineering Co., Ltd.	
<b>7. STUDY PERIOD</b>	Jul.1986 ~ Feb.1988 19month(s) ~	
<b>8. SITE OR AREA</b>	Area along the Bay at the southern Panama metropolitan area	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
Corredor Sur I (in the built-up area)	Expansion into 6 lanes, new construction: about 10km	
Corredor Sur II (suburbs)	New construction of 6 lanes and 4 lanes: about 12km	
Major access road	Expansion into 6 lanes, new construction: about 13km	
Extension of Corredor Sur	Expansion into 4 lanes: about 2km	

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed Partially Completed Implementing Processing	Delayed or Suspended   Discontinued or Cancelled
<p><b>Description :</b></p> <p>Subsequent Studies: In progress by ICA (FY 1996 Overseas Survey).</p> <p>Finance: (FY 1996 Domestic Survey) The public tender was invited. As a result, the cabinet approved in Aug.1996 the ICA (Mexico) and the Panamanian body corporate to undertake the construction.</p> <p>(FY 1997 Overseas Survey) 1997 Tender Cost / US\$ 222 mil.</p> <p>Administration Period: 30 years</p> <p>Construction: (FY 1996 Overseas Survey) Scheduled to be implemented from mid-1997.</p> <p>(FY 1997 Overseas Survey) Construction was started in 1997.</p>		

# STUDY SUMMARY SHEET

## (M/P+F/S)

CSA PAN/S 215/93

<b>1. COUNTRY</b>	Panama	
<b>2. NAME OF STUDY</b>	Rehabilitation Plan and Container Terminal Operation Plan at the Port of Cristobal	
<b>3. SECTOR</b>	Transportation / Port	
<b>4. TYPE OF STUDY</b>	M/P+F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	National Port Authority
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	The Overseas Coastal Area Development Institute (OCDI) Pacific Consultants International (PCI)	
<b>7. STUDY PERIOD</b>	Oct.1992 ~ Sep.1993 11month(s) ~	
<b>8. SITE OR AREA</b>	Port of Cristobal and Surrounding Area	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>Master Plan(2010)</p> <p>Project 1 : New Container Terminals(Telfers Island)  Short Term(2000) : Container Berth(d=13.0m,I=300m), Area 10.5ha, Container Crane 2, Transfer Crane 7  Long Term(2010) : Container Berth(d=13.0m,I=600m), Area 21.0ha, Container Crane 4, Transfer Crane 14</p> <p>Project 2 : Modernization of Existing Container Terminal  Short Term(2000) : Expansion 1.8ha, Transfer Crane 1, (additional)  Long Term(2010) : Expansion 3.3ha, Transfer Crane 4, (additional)</p> <p>Project 3 : Modernization of Existing Piers and Mole Area  Short Term(2000) : Pier No.7:Demolition of Quay Shed 7,900m2, Mole:Pavement for Open Storage Area 5,000m2  Long Term(2010) : Pier No.8:Reform to Passenger Terminal, Mole:Pavement for Open Storage Area etc. 20,660m2</p> <p>Project 4 : Access Road  Short Term(2000) : Access to Bolivar, Highway(2 lanes) 2.3km  Long Term(2010) : Bypass Route to R16(4 lanes) 3.0km</p>		

クリストバル港管理運営システム計画調査

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

(FY 1995 Overseas Survey)

The proposals of the study have been implemented only partially(\*).  
 This is because various reasons relating to the privatization of the Port management have caused the delay in the project implementation.  
 A private firm will utilize the study results once it starts the rehabilitation works and the operation of the container terminal.

\*-the close of Pier No.7 and the construction of the container terminal there and the provision of the permission to construct the management facility of the Panama-Colon Route at Pier No.6.

(FY 1996 Overseas Survey)

The operation of the Port of Cristobal was privatized, which is expected to result in the upgrading of service and the improvement of its efficiency. The construction and improvement works are to be implemented under the supervision of the National Port Authority. The operation right of the Port has been transferred to Hutchinson International Terminal by concession and the construction is planned to be started from May 1997.

<Medium Term Plan>

Finance:  
 BOT

Construction:

(FY 1997 Overseas Survey)

1994~1995  
 Completed Components  
 Pier No.7 / Demolition of Quay Shed  
 Pavement for open storage area

Remaining Components:

(FY 1997 Overseas Survey)

(Implementation has delayed due to privatization of the Cirstobal Port)  
 Expansion of open storage area  
 Development of new port in Telfer island

# STUDY SUMMARY SHEET

(F/S)

CSA PAN/S 307/93

<b>1. COUNTRY</b>	Panama	
<b>2. NAME OF STUDY</b>	Study of Alternatives to the Panama Canal	
<b>3. SECTOR</b>	Transportation / Marine Transportation & Ships	
<b>4. TYPE OF STUDY</b>	F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Commission for the Study of Alternatives to the Panama Canal
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Mitsubishi Research Institute Inc. Yachiyo Engineering Co., Ltd.	
<b>7. STUDY PERIOD</b>	Jul.1991 ~ Aug.1994 37month(s) ~	
<b>8. SITE OR AREA</b>	Canal Zone	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>Economic and Impacts Study (A)</p> <ul style="list-style-type: none"> <li>- To construct the third locks at both entrances capable of handling ships of a design of 150,000 DWT.</li> <li>- To prepare approach channels from the third locks to the present Canal. To widen the Gaillard Cut.</li> </ul> <p>Engineering and Cost Estimate Study (B)</p> <p>Most feasible alternative reported by the Commission is as follows.</p> <ul style="list-style-type: none"> <li>- construction with one lane lock for 150,000DWT ship parallel to the existing locks.</li> <li>- two lane canal except one lane on Culebra Cut.</li> <li>- The alternative project shall be constructed by the year 2020.</li> <li>- Sea level canals are estimated not feasible.</li> </ul>		

パナマ運河代替案調査

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

By the Final Report of the commission (Sep.1993), existing canal will be available until 2020 and after 2020, improved canal by this project will be necessary. The project shall be completed by 2020.

The canal is to be transferred from USA to the Republic of Panama in Dec.31,1999. This project has been suspended and the Commission was closed after completing the study.

(FY 1995 Overseas Survey)

In October 1995, the Ministry of Foreign Affairs of Panama produced the tentative report with which it is planning to request foreign donors to renew this study. In order to renew the study the Panamanian government has decided to allocate 34% of total cost (431,500US\$/year) while it expects foreign donors to contribute the remains.

(FY 1997 Domestic Survey)

In September 1997, International Panama Canal Conference was held by government of Panama and management method after the handover was discussed. Panama Canal Committee reported larger amount of services than estimated by the F/S and asserted that implementation of project should be earlier than as it planned.

(FY 1998 Domestic Survey)

The projects proposed by F/S have been implemented. The government established Panama Canal Bureau. M/P is under formulation with the idea of "School, Technology and Science City Development Project" as a development. This is planning to be financed by IDB.

(FY 1997 Overseas Survey)

Related Study:

"Transit Project"

Executing Organ / Ministry of Foreign Affairs, International Canal Conference

Consulting Firms / Advanced Logistics, Europroject, World Ltd.

Imp.Period / 7 months

Study Cost / US\$ 400,000 (EU fund)

Components of the study / evaluation of the Panama Canal development alternative plan, study for long term plan

Based on the results of above mentioned study, new department was founded in the Canal Committee for preparation of the construction of the third locks.

Related Private Investment Project:

1.Port

Projects such as privatization of Mansanillo Port and Coco Solo Port, are being implemented by ARI (Interoceanic Region Authority) and private sector. Construction of a container terminal at Colon Port has been started in September 1996 by the Taiwanese company. Negotiations on investment are being held in the area of tourism and other areas.

2.Road

North Corridor 1998 opened

South Corridor 1997 construction started

Panama-Colon Highway construction started

Railway Transistmico 1998 rehabilitation started

3.Canal

Widening of Culebra Cut 1995~2002

Capacity Increase Program(Canal Committee) 1996~

Gaillard widening

# STUDY SUMMARY SHEET

(F/S)

CSA PAN/S 308/93

<b>1. COUNTRY</b>	Panama	
<b>2. NAME OF STUDY</b>	Improvement of Panama-Colon Highway	
<b>3. SECTOR</b>	Transportation / Road	
<b>4. TYPE OF STUDY</b>	F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Ministry of Public works
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Yachiyo Engineering Co., Ltd. Chodai Co., Ltd. Asia Air Survey Co., Ltd.	
<b>7. STUDY PERIOD</b>	Dec.1992 ~ Mar.1994 15month(s) ~	
<b>8. SITE OR AREA</b>	Area between Panama and Colon	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>1)Construction of a full access controlled 4-line highway with design speed of 110km/h in Alcade Diaz Section(20.2km).</p> <p>2)Construction of a full access controlled 4-line highway with design speed of 110km/h in Sabanitas Section(26.2km).</p>		

パナマ・コロロン間高速道路計画調査

<b>PRESENT STATUS</b>	Completed or In Progress  Completed Partially Completed Implementing Processing	Promoting  Delayed or Suspended  Discontinued or Cancelled
<p><b>Description :</b></p> <p>Subsequent Studies: Implemented by PYCSA</p> <p>Difference with JICA's Proposals: The proposed route was changed and shortened. As a result, the negative impact on environment was mitigated. Also, the project cost was decreased.</p> <p>Finance: (FY 1995 Domestic Survey) The Government of Panama signed on an agreement with PYSCA, a Panamanian Representative of a Mexican Contractor, and approved the construction works of the Panama-Colon express highway. Based on this agreement the construction has been commenced by means of BOT Process. Total Cost/328 mil.B *Components Section I: Alcade Diaz-Madden Section II: Madden-Colon</p> <p>(FY 1998 Overseas Survey) According to the contract with PYSCA, it is prescribed that PYCSA will be responsible for study, design, construction, maintenance, operation and management for 30 years and that the responsibility will be transferred to the government.</p> <p>Construction: 1. Section I (FY 1998 Overseas Survey)(FY 1999 Overseas Survey) Jul.1996-June 1999 (completed) (FY 1999 Domestic Survey)(FY 1999 Overseas Survey) The highway is now possible for use.</p> <p>2.Section II (FY 1998 Overseas Survey)(FY 1999 Overseas Survey) Not yet started.</p> <p>Situation: (FY 1995 Overseas Survey) The original HCA survey was partially modified for the environment conservation. PYCSA has been requesting for IDB loan.</p>		



# STUDY SUMMARY SHEET

## (M/P+F/S)

CSA PAN/S 201/95

<b>1. COUNTRY</b>	Panama	
<b>2. NAME OF STUDY</b>	Development of Tourism in the Coastal Area	
<b>3. SECTOR</b>	Tourism / (Tourism in) General	
<b>4. TYPE OF STUDY</b>	M/P+F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Panamanian Institute of Tourism
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Yachiyo Engineering Co., Ltd. Pacific Consultants International (PCI)	
<b>7. STUDY PERIOD</b>	Mar.1994 ~ Oct.1995 19month(s) ~	
<b>8. SITE OR AREA</b>	Bastimentos, Arco Seco, Farallon, Metropolitana, Portobelo, Las Perlas	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>1)Chame Resort Development -Formation of coastal resort hotel complex as a guidance development project in Farallon zone (total cost 284,630 BI/1,000).</p> <p>2)Panama Canal Tourism Development -Formation of continuous tourist attraction space utilizing the natural scenery and historic spot by preparing 10 sites as tourist bases along the Panama Canal (Total Cost 239,825).</p> <p>3)Flower and Green City Project -Beautification of airport, airport and city connection road and parks, to improve the first impressions of tourists for Panama (Total Cost 32,495).</p> <p>4)Portobelo Tourism Development -Formation of tourist resort along the coast, enclosing the Portobelo National Park by conserving and redeveloping the historical town of Portobelo (Total cost 131,063).</p> <p>5)Caribbean Coast, Costa Arriba Road Development -Reform of Sabanita-Cuango trunk road, caribbean coast(Total Cost 42,808).</p> <p>6)Superspeed Boat Sea Route Development -Formation of Super speed Boat Day-Trip-Tour Bloc among Panama city, Rey Island and Chame to correspond to tourist demand. Improvement of port facilities, access road, parking, passenger terminal (Total Cost 68,056).</p>		

沿岸域観光開発計画

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

(FY 1996 Overseas Survey)

As of Dec.1996, the revision of No.22 of Sep.15, 1960 Law is under deliberation. The promotion of tourism, the formulation of tourism development project, the human resource development of the concerned departments and the financing for the preservation of historical, cultural heritages are on agenda. Other than that, the proposals have been presented with respect to legislations and systems.

Also, Project financed by private sector is being carried out at the M/P target area.

(FY 1997 Overseas Survey)

There is no plan for public investment.

(1)Panama Canal Tourism Development

(FY 1996 Overseas Survey)

API has concluded a contract with a private company, "Emapresa Intercarib" and has ordered the formulation of the Land Utilization Plan and the Investment Promotion Program of this Project.

(FY 2000 Domestic Survey)

A private hotel enterprise bought the right as a concession to use the restored facilities in a canal area with the Panama Canal and runs some resort hotels.

(FY 2001 Overseas Survey)

Concerning special legislation applied to the Canal district, API is in charge of development projects promotion while ACP is in charge of integrated control in the restoration area.

(2)Flower and Green City Project

(FY 1997 Overseas Survey)

This project has been partially implemented by the City of Panama, the main implementing body.

(FY 2000 Domestic Survey)

The Panama City shows interest in the plan and is seeking for available fund sources.

(FY 2001 Domestic Survey)

Main reason of interruption: Lack of finance for infrastructure improvement.

Subsequent study: Necessary design work has not started yet.

Fund procurement: Interested in yen loan.

(FY 2001 Overseas Survey)

This project has not been implemented as planned, however, the municipality of Panama is implementing Green Area Project with their own financial source and fund from private enterprises.

(3)Portobelo Tourism Development

(FY 2000 Domestic Survey)

Spanish Government has completed the restoration of the Customs House, the main building in Portobelo Remains. Some private enterprise shows the interest in the tourism development.

Fund Procurement:

(FY 2001 Overseas Survey)

Financial source: Agency for International Cooperation, Spain.

1. Tourism facilities construction/improvement (Construction of visitors center, craft house, two harbors and Christbelo Museum, Signs for tourists in Portobelo, Pavement, Rehabilitation of Portobelo Plaza, etc.), 2. Formulating tourism strategy plan, 3.Waste water treatment, 4.Training, etc.

(4) Chame Tourist Center Development

(FY 2001 Overseas Survey)

Utilized as a reference for planning of Escondia Resort and Malina Project (private investment project). The project application for institutions such as Panama Tourist Board and Authority of National Environment is being processed.

(5) Carribean Coast, Costa Aliba Road Improvement on Caribu and Aliba Coast

(FY 2001 Overseas Survey)

Portobelo-Palenque Road: Asphalt pavement Improvement was implemented.

San Antonio-Guaira Road: Soil pavement Improvement was implemented.

There's a tourist designated area based on laws. The area has developed its relimitazationto Santa Isabel and Grande Island. (Grande Island Standard Project is being formulated. Portobelo is integrated into local municipalities tourism project.

(6) Superspeed Boat Route Development

(FY 2001 Overseas Survey)

Only Farageon Tourism Development Project was implemented. Farageon Port is one of the ports of shipping route development.

Utilization of the study results:

(FY 2001 Domestic Survey)

Fully utilized as a guideline of tourism development.

(FY 2005 Domestic Survey)

Private sector financed development is in progress along the Panama Canal centring American military base.

Especially, tourism development of the Pacific side proposed in the study has become a district to be developed by private sector.

# STUDY SUMMARY SHEET

## (M/P+F/S)

CSA PAN/S 216/97

<b>1. COUNTRY</b>	Panama	
<b>2. NAME OF STUDY</b>	Development Plan of the Port of Balboa	
<b>3. SECTOR</b>	Transportation / Port	
<b>4. TYPE OF STUDY</b>	M/P+F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	The Overseas Coastal Area Development Institute (OCDI) Pacific Consultants International (PCI)	
<b>7. STUDY PERIOD</b>	Mar.1996 ~ May.1997 14month(s) ~	
<b>8. SITE OR AREA</b>	The current area of the Port of Balboa, including the required area to be developed based on the future projection.	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
(M/P) Container Terminal (Farfan), Oil Terminal.		
(F/S) Container Terminal (Diablo), Berths for tuna boats and sand barges, Increasing the depth of the pier for passenger cruiser ships, etc.		

バルボア港開発計画調査

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

(FY 1998 Domestic Survey)

In Panama, there are more than 20 ports, most of which are owned and administrated by APN (Autoridad Portuaria Nacioal). Major ports such as Balboa, Cristbal, Coco Solo Norte and Vacamonte (fishing), are located around the Panama Canal.

In recent years, fully-equipped container terminals have been constructed in the scheme of BOT. Close to Cristbal on the Caribbean Sea, MIT(Manzanillo International Terminal) was opened in 1993, and it was decided that a part of Coco Solo Norte would be developed as a container terminal through concession by the Evergreen in 1995.

On the Pacific side, another BOT contract to develop Balboa was signed with Panama Ports Company, S.A.(PPC) in December, 1996. At that time, the JICA Study was forming the long-term plan for 2015, in which a recommended plan for the said contract was also included. Similarly in coming years, Balboa is expected to be developed appropriately based on the Master Plan.

(FY 2001 Domestic Survey)

The new terminal, Balboa Container Terminal (BCT) was constructed which cost US\$120 million and opened on 14, Nov. 2000. The Panama Ports Company (PPC) operates the new terminal and became to operate both Ports of Cristobal and Balboa. The period of contract with the government of Panama is 50 years resulted from 25 years plus 25 years.

The specification of the BCT is the length of quay of 350 m, depth of water of 12.9 m, area of yard of 8.4 ha, 3 Super Panamax Gantry Cranes, cargo handling equipment in yard of 9 RTG and annual container handling capacity of 600,000 TEU. According to the demand forecast by the Company, the demand has been expected continuously well, therefore, the phase 3 works were commenced to add the capacity of 300,000 TEU at the completion in Nov.2002.

Construction Progress:

(FY 2001 Overseas Survey)

Phase I and II are being implemented as scheduled.

1) Completed activities: 350m Berth, 3 Cranes, 16 Cranes for Yard, 8.4ha Container Yard, 16.5m depth Deep Water Berth, 12.9m Water Channel, 468 Connection Point for Freeze Container, Port Shipping Movement Management House, Custom and Immigration Office, Access Road to Port and Berth 14 & 15.

2) Under construction: 720m Extension Berth, 16.8ha Container Yard (Phase III), 12.1ha Container Yard (Phase IV), Shipping Route Dredging, Mastanijo River Branch (Outlet Channel).

3) Activities to be implemented: 1,500m Berth, 12 Cranes, 27 Cranes for Yard, 50ha Container Yard.

Difference with the JICA Study:

(FY 2001 Overseas Study)

The railroad improvement project was implemented without affecting the port development and has been changed to utilize both of the transportation means at most. Farfan district is not considered as the expansion area of Barboa Port at the present. The area has a possibility to be commissioned to an enterprise which starts new shipping line operation. However, Panama Port Authority has not been received the application.

# STUDY SUMMARY SHEET

## (M/P+F/S)

CSA PAN/S 224/02

<b>1. COUNTRY</b>		Panama
<b>2. NAME OF STUDY</b>		The Study on Solid Waste Management Plan for Municipality of Panama in the Republic of Panama
<b>3. SECTOR</b>		Public Utilities / Urban Sanitation
<b>4. TYPE OF STUDY</b>		M/P+F/S
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Municipality of Panama
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>		Kokusai Kogyo Co., Ltd.
<b>7. STUDY PERIOD</b>		Nov.2001 ~ Feb.2003 15month(s) ~
<b>8. SITE OR AREA</b>		M/P: the municipality of Panama (Area: approximately 2.5 thousand square meters, Population: approximately 700 thousand) F/S: the municipality of Panama (Area: approximately 2.5 thousand square meters, Population: approximately 700 thousand)
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>M/P:</p> <p>The M/P targeted for 2015 is divided into three phases (Phase 1 targeted for 2005, Phase 2 for 2010, and Phase 3 for 2015), consisting of respective short-term, mid-term, and long-term goals. Specifically, the current collection rate of 92% is to be improved to 100% by 2006, separate collection is to be introduced from 2007, and the separate collection rate is to reach 50% by 2015.</p> <p>In 2005, a transfer and transport system (Phase 1: 300 tons/day, Phase 2: 600 tons/day) is to be introduced in the eastern part of the city.</p> <p>In 2007, resource recovery facilities are to be introduced with a capacity of 25 tons/day, and will gradually increase to 220 tons/day by 2015.</p> <p>The final disposal site is to be expanded approx. 6,400,000 m<sup>3</sup> to ensure use from 2006 to 2015.</p> <p>As for the results of the economic evaluation of the M/P, the citizens' willingness to pay obtained from the public opinion survey is regarded as the benefit, and the B/C is 1.002 and the EIRR is 0.47%.</p> <p>F/S: Of the projects proposed in the M/P, the Cerro Patacon Final Disposal Site Expansion Project, which was determined to be an urgent and effective project, was implemented as the F/S, and the Transfer and Transport System was implemented as the Pre-F/S</p> <p>Cerro Patacon Final Disposal Site Expansion Project</p> <p>Scope: the area is approx. 28 ha, the landfill operation period is from 2006-2015, and the landfill capacity is 6,400,000m<sup>3</sup> (Phase 1: 2006-08, 1,300,000m<sup>3</sup>; Phase 2: 2008-10, 1,200,000 m<sup>3</sup>; Phase 3: 2010-11, 1,00,000 m<sup>3</sup>; and Phase 4: 2012-2015, 2,800,000m<sup>3</sup>). Through implementation of this study, the sanitary level of the final disposal site will be improved and the impact on the surrounding environment will be mitigated. With the willingness to pay obtained from the public opinion survey regarded as the benefit, the B/C is 1.2 and the EIRR is 8.9%. Consequently, the project is determined to be economically feasible.</p> <p>As the site for the transfer station is not determined, this project was implemented as the Pre-F/S. It is composed of the transfer station and transport system, and the respective scope is 300 tons/day for Phase 1 (2007) and 600 tons/day for Phase 2 (2008).</p> <p>The economic evaluation was carried out using willingness to pay as with the final disposal site, and B/C was found to be 1.25 and EIRR 17.5%. Consequently, the project is determined to be economically feasible.</p>		

パナマ行政区廃棄物管理計画調査

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

(FY2003 Overseas Survey)

Formulation of the master plan and organization of the development unit (execution unit) are in progress at present. The following plans have been pushed forward.

- 1) Review of collection routes.
- 2) Review of cleaning routes.
- 3) Preparation of condition document for grant of business rights to operate the SELO PATAKON Landfill.
- 4) The condition document for grant of business rights of the transfer plant in the eastern part of Panama area was prepared.
- 5) The city's measures for administrative adjustment of the Civic and Household Health Office are in progress.

(FY 2004 Domestic Survey)

There has been a request for the project-type technical cooperation.

(FY 2004 Overseas Survey)

1. Progress description of proposed project:

- 1) Garbage landfill:
  - Construction of fourth stage, and expansion of the one in progress (2005 summer)
  - Disposal of effusion. Construction of pump lake as the second stage of the existing pond. Public project pending (2005 summer)
- 2) Transfer and transport:
  - Transport station: Searching for a place, making a contract with the estate agency is planned. Designing and Construction are expected against JICA.
- 3) Machinery facilities: Collection cars: Based on necessity of an acquisition of the collected machines as indicated in the survey, supplied 30 trucks in 2004. During 2005, because 15 would be supplied as addition to 30, number of the vehicles would be secured in advance.
  - 20 yards long packer vehicles (20)
  - 16 yards long packer vehicles (10)
- 4) Construction:
  - Facilities and infrastructures: Anticipate for a transfer of central office to reclaimed land for the improvement in working condition and space. JICA technical cooperation is anticipated for site preparation (dumping area, diversification plant, and treatment plant) and selection of a site.
2. Feasibility of subsequent studies:
  - Requested JICA for an expansion of the study on solid waste management plan for municipality of Panama in August 2004
3. Finance:
  - 1) Reclamation treatment site: Own funding, DIMAUD Investment
  - 2) Equipment preparation: Investment from regional banks
  - 3) New facilities construction: Own fund
4. Other progress:
  - 1) Strengthening, analysis, selection of the site, economic feasibility, financial improvement for construction/establishment of transfer station pilot project. Introduction of implementation team, a JICA technical cooperation as part of the request on August 2004.
  - 2) Rout improvement program has continued by installing a new equipment for the for waste collection in 21 site.
  - 3) Conducted discussion with related agencies, such as ANAM and MINSA, for recycling reusable waste, using waste diversification plant.
  - 4) In addition to the commercialization program, improvements in environmental education in school and communities during school terms.
  - 5) In addition to commerce programs, reinforcements of environmental education taught at schools and regions during learning terms

(FY 2005 Overseas Survey)

Several measures have been taken in order to develop capacity by implementing the output of the result of the study and the data configured. In addition, improvements for additional plan is being considered.

# STUDY SUMMARY SHEET

## (M/P)

CSA PAN/S 101/04

<b>1. COUNTRY</b>	Panama	
<b>2. NAME OF STUDY</b>	The Study on the Comprehensive Ports Development Plan	
<b>3. SECTOR</b>	Transportation / Marine Transportation & Ships	
<b>4. TYPE OF STUDY</b>	M/P	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Autoridad Maritima de Panama, (Panama Maritime Authority, AMP)
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Pacific Consultants International (PCI)	
<b>7. STUDY PERIOD</b>	May.2003 ~ Sep.2004 16month(s) ~	
<b>8. SITE OR AREA</b>	Nationwide	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>1. Assistance for city development suitable as a gateway for international tourist site at the Bocas del Toro port and the Almirante port</p> <ol style="list-style-type: none"> <li>1) Constructions of passenger terminals,</li> <li>2) improvements of cargo shipments to the remote islands, and</li> <li>3) environmental maintenances in Bocas del Toro city</li> </ol> <p>2. Construction of Chiriqui port to facilitate regional industrial development</p> <ol style="list-style-type: none"> <li>1) Promotions of regional industry by reducing shipment costs of regional import and export cargos,</li> <li>2) furtherance of new industry and employments (shipments to the south of Costa Rica, and attraction as tuna ships</li> </ol> <p>3. Coquillhat port development to secure a sea line to remote islands</p> <ol style="list-style-type: none"> <li>1) Maintenances of shipment route to costal communities and improvements of services, and</li> <li>2) a move of substitute functions due to an abolishment of the Panama Port.</li> </ol> <p>4. Establishment of local activation centre for coastal residents in Darien prefecture, local industry development, and management of marine resources through La Parma port development</p> <ol style="list-style-type: none"> <li>1) Maintenances of shipment routes to the Darien prefecture coastal community and improvements of services,</li> <li>2) providing regional small scaled fishermen with accesses to markets, and</li> <li>3) maintenances of a haul of fish, improvements of efficiency in commerce fishery industry, and promotions of regional industry (shrimp processing, timber processing and others)</li> </ol>		

<b>PRESENT STATUS</b>	In Progress or In Use
	Delayed
	Discontinued

**Description :**

(FY 2005 Domestic Survey)

As of 2005, of the proposed 4 projects, AMP is conducting a tender utilising BOT scheme for Bocas del Toro Port and Almirante Port.

(FY 2005 Overseas Survey)

No information to be specifically mentioned.



# STUDY SUMMARY SHEET

## (F/S)

CSA PER/A 301/77

<b>1. COUNTRY</b>	Peru		
<b>2. NAME OF STUDY</b>	Proyecto de la Construcción del Complejo Pesquero del Centro		
<b>3. SECTOR</b>	Fishery / Fishery		
<b>4. TYPE OF STUDY</b>	F/S		
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>		
	<b>PRESENT COUNTERPART AGENCY</b>		
<b>6. CONSULTANT(S)</b>	Japan Port Consultants Co., Ltd.		
<b>7. STUDY PERIOD</b>	Oct.1976 ~ Dec.1976 2month(s) ~		
<b>8. SITE OR AREA</b>	Ventanilla		
<b>9. MAJOR PROPOSED PROJECT(S)</b>			
<ul style="list-style-type: none"> <li>-Planning of proper scale facilities and their arrangement in fishing base</li> <li>-Basic design of the structure</li> <li>-Estimate of construction cost and period</li> <li>-Economic and financial analysis</li> </ul>			

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

## Subsequent Study:

(FY 1998 Overseas Survey)

1988-90 F/S (Review study) undertaken

Cost/ US\$60,000 (FONDEPES)

Difference with JICA's proposal/ Reduction of the scale of the project was proposed in order to implement the project with a grant aid assistance.

## Finance:

The grant aid has been requested based on the F/S (Dec.1990), and waiting for the response. The implementation of the project is delayed because of the financial problem.

## Situation:

(FY 1993 Overseas Survey)

-It is ready to commence the implementation whenever the fund becomes available.

-Following effects are expected on this Project :

- 1)Supply enough sea foods to 6.5 millions of inhabitants in the metropolitan area,
- 2)Export sea products and earn foreign exchange,
- 3)Rural development by means of the establishment of a new fishing port, and
- 4)Create new employment opportunities.

(FY 1995 Overseas Survey)

- This project is very important and eagerly wished to materialize.

- It is expected much more technical transfer in the field of harbor industry, since technological innovation of fisheries industry becomes necessary.

- It is considered followings as for the subjects in the near future:-

- 1) Construction of new facilities at a fishing port near by Lima.
- 2) Improvement of the Port of Callao, and
- 3) Construction of new fishing ports at the central part of the country.

(FY 1996 Overseas Survey)

Potential financial sources are counter value and grant aid. The Govt of Peru continues negotiation for grant aid.

(FY 1997 Overseas Survey)

Request for a grant aid assistance has been submitted in May 1997.

# STUDY SUMMARY SHEET

## (M/P+F/S)

CSA PER/S 201B/83

<b>1. COUNTRY</b>	Peru	
<b>2. NAME OF STUDY</b>	Development Project of the Port of Callao	
<b>3. SECTOR</b>	Transportation / Port	
<b>4. TYPE OF STUDY</b>	M/P+F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Empresa Nacional de Puertos S.A.
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	The Overseas Coastal Area Development Institute (OCDI)	
<b>7. STUDY PERIOD</b>	Jul.1982 ~ Sep.1983 14month(s) ~	
<b>8. SITE OR AREA</b>	Lima Capital Area (metropolitan area)	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>&lt;M/P&gt;</p> <p>The main purpose of the Short-term Plan through 1987 is containerization and provision of enough facilities.</p> <ul style="list-style-type: none"> <li>- container berths 4 new berths</li> <li>- grain berths 2 new berths</li> <li>- general cargo berth 1 new berth 2 renovated berths</li> <li>- petroleum berth 1 new berth</li> <li>- breakwater, basin, handling equipment</li> </ul> <p>&lt;F/S&gt;</p> <p>To handle 8.4 million tons in 1987, the following facilities will be prepared.</p> <p>The main purpose of the Short-term Plan through 1987 is containerization and provision of enough facilities.</p> <ul style="list-style-type: none"> <li>- container wharf 1 berth with -12m depth and with 15ha area</li> <li>- grain wharf 1 berth with -12m depth (for 60,000 DWT)</li> <li>- container crane 2 cranes</li> <li>- handling machines 2 machines</li> </ul>		

カジャオ港整備計画

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

## Subsequent Studies:

1991~92 Pre-F/S conducted by ENAPU based on the short-term plan proposed by this Study. (FY 1994 Domestic Survey)  
Oct.~Dec.1994 F/S

## Finance:

Upon the request of the Peruvian government,OEFC implemented SAPROF study from October 1994 to the end of 1994. (FY 1994 Domestic Survey)  
Mar.1996 L/A 16,624 mil. Yen (Collao Port Improvement Project)

\*Contents of Project (D/D included)

(1)Improvement of one wharf of container and grain

(2)Take measures against environment impact by Counterpart Agency  
(FY 1996 Domestic Survey)

## (FY 1997 Overseas Survey)

The location of a grain terminal was modified to be constructed in parallel with No.1 terminal.

The total project cost is US\$ 221,212,000. Government budget is allocated in addition.

Depending on the result of D/D, construction of second container terminal will be considered. (fund will be procured separately)

## Construction:

## (FY 1997 Overseas Survey)

Under implementation

Jul.1988 D/D to be finished

2001 Civil works to be finished

2002 Equipment to be installed

## Detail:

## (FY 1991 Overseas Survey)

The Peruvian government still puts high priority on this project and, after modifying the project scale, plans to request the Japanese government for the financial assistance again during 1992.

## (FY 1992 Overseas Survey)

The capacity of the port facilities to handle cargoes is likely to far exceed the expected volume of cargoes in future. The request for the budget allocation submitted to the National Planning Authority was turned down.

## (FY 1993 Overseas Survey)

The revision of M/P in order to make it more applicable to the present situation and the implementation of F/S have been under consideration.

## (FY 1994 Domestic Survey)

After the completion of F/S, during the 1980's, no progress was made for the project implementation. However, the Fujimori administration still gives high priority to this project.

## (FY 1995 Overseas Survey)

The request was submitted to the Japanese government for the financial assistance. The Peruvian government is expecting an OEFC loan.

## (FY 1996 Overseas Survey)

Proposals of M/P have been modified in some aspects as parallel berth proposed at SAPROF. After SAPROF short-term plan was recommended as follows.

-Construction of container terminal with the length of 270 m (silo and equipment included)

-Dredging of access area and new terminal (14 m)

## Reasons for Delay:

-F/S was evaluated by special unit at Ministry of Economy and Finance.

-Min. of Economy and Finance proposed the participation of private sector for implementation.

-Responsible agency has altered to Min. of Transport,Communication,Housing and Construction.

-It took time to fill in the english questionnaire prepared by OEFC.

-Negotiation for contract delayed.

# STUDY SUMMARY SHEET

(F/S)

CSA PER/A 302/84

<b>1. COUNTRY</b>	Peru	
<b>2. NAME OF STUDY</b>	Chancay-Huaral Valley Rehabilitation Project	
<b>3. SECTOR</b>	Agriculture / (Agriculture in) General	
<b>4. TYPE OF STUDY</b>	F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Instituto nacional de ampliacion de la frontera agricola
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Naigai Engineering Co., Ltd. Chuo Kaihatsu Corporation	
<b>7. STUDY PERIOD</b>	Feb.1984 ~ Mar.1985 13month(s) ~	
<b>8. SITE OR AREA</b>	Chancay-Huaral valley, 80km from Lima	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
Irrigated area : 20,200 ha Intake facilities : 8 places Irrigation canal : 175km Pond : 18 places Drainage canal : 70 km Underdrainage : 407 km Road : 174 km Dike : 14 km The cost above is estimated in 1984 prices.		

チャンカイ・ワラル谷かんがい復旧計画

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed Partially Completed Implementing Processing	Delayed or Suspended  Discontinued or Cancelled

**Description :**

The project was given top priority for early implementation to raise the self-sufficiency of basic foods and to increase exports.

Rehabilitation of irrigation and drainage facilities :  
The priority project proposed in the F/S was implemented by the grant from the Japanese Government. 14,400 ha of farm land was developed in two stages.

Subsequent Studies:  
Jan.~May.1989 B/D (Naigai Engineering Co.,Ltd)  
Jul.1989 D/D (Naigai Engineering Co.,Ltd)  
(FY 1997 Overseas Survey)  
Out of B/D target areas, La Esperanza area has been pended.

Finance:  
Nov.1987 Request for grant aid  
Jun.27.1989 E/N 984 mil.yen (Reconstruction of Irrigation and Drainage System in the Chancay-Huarel Valley-Phase1/2)  
Oct.1990 E/N 691 mil.yen (Reconstruction of Irrigation and Drainage System in the Chancay-Huarel Valley-Phase2/2)

Construction:  
Jan.1990~Mar.199 1st Stage implemented  
Feb.1991~Aug.1993 2nd Stage implemented  
(Jul.1991~Jul.1992 Construction was suspended due to the act of terrorism)  
\*Contents (2nd Stage)  
Irrigation canal (8.2km)  
Intake weir (3)  
Drainage canal (30.1km)  
Equipment  
Service center  
Contractor / Taisei Kensetsu

Operation and Management :  
(FY 1998 Domestic Survey)  
Water-users' association is in charge of management and operation. The equipment provided by grant aid assistance became decrepit.

Remaining Project :  
(FY 1998 Domestic Survey)  
Regarding the Rural Modernization Project in Esperanza Region, a request is to be submitted.

Situation:  
(FY1995 Overseas Survey)  
At present, necessary measures are carrying on to request the detailed design and the implementation at Esperanza region which has been planned by the F/S of this project.

(FY1997 Domestic Survey)  
As for the remaining project, Peruvian government has submitted a request for grant aid assistance to Japanese government.

(FY 1997 Overseas Survey)  
Remained components are irrigation, facilities for transportation of agricultural product, equipment in La Esperanza.  
Requesting a grant aid assistance.

# STUDY SUMMARY SHEET

## (M/P+F/S)

CSA PER/S 202B/86

<b>1. COUNTRY</b>	Peru	
<b>2. NAME OF STUDY</b>	Development Project of Jorge Chavez Lima-Callao International Airport	
<b>3. SECTOR</b>	Transportation / Air Transportation & Airport	
<b>4. TYPE OF STUDY</b>	M/P+F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Ministerio de Transportes y Comunicaciones
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Japan Airport Consultants, Inc.	
<b>7. STUDY PERIOD</b>	Jul.1985 ~ Jun.1986 11month(s) ~	
<b>8. SITE OR AREA</b>	Existing Lima Int'l Airport in Lima, Peru	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>&lt;M/P&gt;</p> <p>The Master plan was formulated to meet the demand of 2005 and the improvement measures to be taken under the master plan are summarized as follows;</p> <p>1)Grading of Runway Strip 2)Bituminous overlay of Runway 3)Bituminous overlay of Taxiway and construction of a high-speed exit taxiway 4)Expansion of Apron with concrete pavement 5)Expansion of main terminal building and construction of satellites 6)Relocation of export cargo terminal and customs office 7)Construction of a Airport administration building 8)Relocation of fire station 9)Expansion of car parks 10)Replacement of VOR aid NDB, introduction of MLS, and installation of weather data recorder.</p> <p>&lt;F/S&gt;</p> <p>The short-term development plan of the airport was prepared, to solve the problems of the existing facilities and also to meet the demand of 1995. The improvement measures for the short-term development plan are summarized as follows.</p> <p>1)Bituminous overlay of Runway(3,507m x 45m) 2)Construction of a high-speed exist taxiway 3)Expansion of Apron(31 spots) 4)Expansion of Main terminal building and construction of satellites(40,000m2) 5)Relocation of export cargo terminal and customs office(14,000m2) 6)Expansion of Car parks(1,370 cars) 7)Replacement of VOR and NDB, introduction of PAPI, upgrading of ALS to Cat-II.</p>		

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed Partially Completed Implementing Processing	Delayed or Suspended   Discontinued or Cancelled
<b>Description :</b>		
<p>Subsequent Studies: (FY 1996 Domestic Survey) Oct.1995~Aug.1996 F/S (US\$430,000) funded by US Trade and Development Agency. (FY 1998 Domestic Survey) COPRI ordered an American Consultant Persons Aviation to formulate a M/P on airport development by the participation of private sector.</p> <p>Proposed Project: 1.Expansion of passenger's terminal 2.Construction of GA aprons, terminals and hungers. 3.Renovation of roads and expansion of parking lot (2,600 vehicles) 4.Construction of parallel runways (3,480 x 45) 5.Construction of parallel taxiways Total Cost: Approximately US\$370mil.(1)Runway</p> <p>Finance: (FY 1998 Domestic Survey) Although OECF Loan was pledged, Government of Peru converted their policy to implementing the project by introducing the private sector funds (planned amount of investment: US\$ 400 million), and established COPRI for promoting private sector participation. (FY 1997 Domestic Survey) Date for signing L/A is not scheduled yet. (Land purchase by Peruvian government has a rough passage) Loan amount: 26,269mil.yen *Contents of the project: Runway, establishment of national ATL system</p> <p>Construction: 1998~2003 (schedule)</p> <p>(FY 1996 Domestic Survey) In order to utilize the present runway by the completion of a new runway, the Government is planning to undertake the urgent rehabilitation work of the present runway with the World Bank fund. The complete rehabilitation and expansion of the runway will be implemented after a new runway is constructed.</p> <p>(FY 1998 Domestic Survey) The contents of the construction work depends on the technical proposal by the private entities which will be awarded. The urgent rehabilitation work of raising the present runway with the World Bank fund was completed at the end of Nov. 1998.</p> <p>Future Prospects: (FY 1998 Domestic Survey) The schedule for the airport development by the private sector participation is as follows: Jan. 1999 Bid announcement. Explanatory sessions will be held in Europe, U.S., and Japan. May 1999 Deadline of the technical proposal. July 1999 Open of the commercial proposal, award, and contract. Aug. 1999 Transfer of the airport.</p>		



## STUDY SUMMARY SHEET (Basic Study)

CSA PER/S 501/86

<b>1. COUNTRY</b>	Peru	
<b>2. NAME OF STUDY</b>	Topographic Mapping Project for Satipo Area, Department of Junin	
<b>3. SECTOR</b>	Social Infrastructure / Survey & Mapping	
<b>4. TYPE OF STUDY</b>	Basic Study	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Instituto Geografico Nacional
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	International Engineering Consultants Association	
<b>7. STUDY PERIOD</b>	Jun.1982 ~ Feb.1987 56month(s) ~	
<b>8. SITE OR AREA</b>	Satipo Area(20,000 sq.km.)	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
1)Aerophotos Scale: 1/60,000 Coverage: 31,259 sq.km 2)Topographic maps 64 plates, covering 12,070 sq.km		

フニン県サティボ地区地形図作成事業

<b>PRESENT STATUS</b>	<p style="text-align: center;">In Progress or In Use</p> <p style="text-align: center;">Delayed</p> <p style="text-align: center;">Discontinued</p>
<p><b>Description :</b></p> <p>Utilization of the Study:  (FY 1991 Overseas Survey)  The maps are highly appreciated.  (FY 1995 Overseas Survey)  The performances of this study project are enrolled into the map of whole country and are utilized for the planning for the works of enterprises concerned by the Presidential Office, the Ministry of Agriculture, etc. The aerial photographs are utilized to draw the map of the whole country in scales of 1 &amp; 50 and 100 thousand. The measures are taken to make it possible to print these maps automatically.  (FY 1996 Overseas Survey)  The output of study is utilized for petroleum exploration.</p> <p>Prospect for the Future:  (FY 1991 Overseas Survey)  Cooperation is desired to computerize these mapping works from now on.  (FY 1995 Overseas Survey)  The National Geographic Institute hopes for further Japanese assistance in land use mapping, automated drawing system, and so on.</p>	

# STUDY SUMMARY SHEET

## (M/P)

CSA PER/S 101/87

<b>1. COUNTRY</b>	Peru	
<b>2. NAME OF STUDY</b>	Disaster Prevention Project in the Rimac River Basin	
<b>3. SECTOR</b>	Social Infrastructure / River & Erosion Control	
<b>4. TYPE OF STUDY</b>	M/P	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Instituto Nacional de Defensa Civil (Institute of National Defence)
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Nippon Koei Co., Ltd.	
<b>7. STUDY PERIOD</b>	Feb.1987 ~ Mar.1988 13month(s) ~	
<b>8. SITE OR AREA</b>	Rimac river basin 3,500 sq.km	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>Major recommendations:</p> <ol style="list-style-type: none"> <li>1) To carry out a feasibility study soon</li> <li>2) To implement non-structural measures <ul style="list-style-type: none"> <li>- Establishment and implementation of land use regulation</li> <li>- Establishment of a coordinated administrative organ to implement the overall watershed management</li> <li>- Establishment of an implementing agency of disaster prevention structural measures</li> <li>- Training of engineers</li> </ul> </li> </ol>		

<b>PRESENT STATUS</b>	In Progress or In Use
	Delayed
	Discontinued

**Description :**

Owing to the political destabilization and the serious constraints in public finance, it is extremely difficult to find funds for implementing the proposals of the study.

## Subsequent Studies:

Oct.1995, a project conforming team of JICA visited Peru and conformed a F/S project of disaster protection at the upper stream of Atarjea.

## \*Contents of F/S

F/S includes water treatment of Rimac river basin (from drainage to the junction of San Mateo river and Santa Eularia river. It also includes control system of 7 rivers at Chosica area.

## Detail:

(FY 1991 Overseas Survey)

The process of specifying areas for feasibility study was suspended after the Japanese expert who had been assigned for this purpose left the country because of the political and social destabilization. The National Institute of Civil Defense assigns high priority to the implementation of the proposals of the study.

(FY 1992 Overseas Survey)

The maps and basic data have been utilized in the determination of priority for emergency works.

(FY 1993 Overseas Survey)

Under the present economic situation, there will be no possibility to implement this project unless divide into several stages and carry out one by one, since it is too expensive to repair the collapsed portion according to the recommendation made by Japanese Side.

The maps and basic data, which come out as the results of the survey works, are very useful for the disaster prevention in this river basin.

Dispatch of experts who will manage and administrate the disaster prevention in this river basin are requested.

(FY 1995 Overseas Survey)

- Following to the indications of this master plan, INDC is implementing the disaster protection works at the dangerous points by their own detailed plans since this project did not provide any detailed designs. These works were designed and requested to INDC by each autonomies.

- The technologies introduced by this project is very high in the costs. So, it is difficult to apply. After that, in Peru, a new bank protection method has been developed, and this method is very effective, even now.

(FY 1996 Domestic Survey)

"Improvement of Rimac River Basin" may be implemented as the 1997 development study.

(FY 1997 Domestic Survey)

F/S on Rimac River bank protection is supposed to be implemented in FY 1998.

(FY 1997 Overseas Survey)

The materialization of project has delayed due to financial problem and higher priority of other projects.

In case of implementation, M/P needs to be up-dated in accordance with the change of circumstances.

# STUDY SUMMARY SHEET

(F/S)

CSA PER/S 301/89

<b>1. COUNTRY</b>	Peru	
<b>2. NAME OF STUDY</b>	Improvement of Sewerage System in Southern Part of Lima	
<b>3. SECTOR</b>	Public Utilities / Sewerage	
<b>4. TYPE OF STUDY</b>	F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Servicio de agua potable y alcantarillad de Lima (SEDAPAL)
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Nippon Jogesuido Sekkei Co., Ltd.	
<b>7. STUDY PERIOD</b>	Apr.1989 ~ Mar.1990 11month(s) ~	
<b>8. SITE OR AREA</b>	16 southern districts of Lima City (122 sq.m, pop. 1.8 million)	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>The project proposes to treat the raw sewage from the Surco drainage canal and to utilize treated water for agricultural and other purposes in San Bartolo Plains.</p> <ul style="list-style-type: none"> <li>-Intake Facility</li> <li>-Transmission Facility</li> <li>-Grit Chamber Facility</li> <li>-Sewerage Treatment Plant</li> </ul>		

リマ市南部下水道整備計画

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

## Subsequent Studies:

(FY 1996 Domestic Survey)

Review study was implemented with the World Bank loan in Dec.1995.

Waste water treatment plan for Lima City was formulated in 1996.

(FY 1996 Domestic Survey)

Oct.1996 D/D was commenced.

Consultant:Nippon Jogesuido Sekkei

\*Difference from JICA's proposal:

(FY 1998 Domestic Survey)

Change of the treatment measure; Construction of Huascar treatment plant and cancellation of No.26 Park STP; and Rehabilitation of San Juan sewerage treatment plant.

## Finance:

(FY 1996 Domestic Survey)

Sep.24.1996 L/A 12,660 mil.yen

(Improvement of Sewerage System in Southern Part of Lima)

\*Components

- construction of sewerage treatment plant (San Bartro, Huascar)

- expansion of sewerage treatment plant (San Juan)

- wastewater pipeline 37.2 km

The objective of this project is to improve the sewerage system in this area. It aims to improve public health and to prevent environmental degradation in the Maric River and the coastal area.

It includes a designing work, F/S on the Surco sewerage treatment project and EIA on a whole project.

## Construction:

(FY 1997 Overseas Survey)

May.1998 ~ May.2000

(FY 1999 Overseas Survey)

1.Construction of the water transmission channel (50km): Jun.1999 ~ Feb.2001.

2.Construction of the San Parto water treatment plant: Feb.1999 ~ Feb.2001.

3.Construction of the Huascar plant and rehabilitation/expansion of the San Juan plant: Sep.1999 ~May 2001.

## Others:

(FY 1998 Domestic Survey)

If the project for Cerro La Chira Sewerage Treatment Plant is implemented, all the sewerage can be treated in the southern part of Lima City.

# STUDY SUMMARY SHEET

## (M/P+F/S)

CSA PER/A 201B/90

<b>1. COUNTRY</b>	Peru															
<b>2. NAME OF STUDY</b>	Fisheries Development Plan of the Fishing Port Construction in the Central Coast of Peru															
<b>3. SECTOR</b>	Fishery / Fishery															
<b>4. TYPE OF STUDY</b>	M/P+F/S															
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Ministerio de Pesqueia (MIPE) de Planificacion Y Presupuesto														
	<b>PRESENT COUNTERPART AGENCY</b>															
<b>6. CONSULTANT(S)</b>	TETRA Co., Ltd. System Science Consultants Inc. Joint Venture/															
<b>7. STUDY PERIOD</b>	Mar.1989 ~ Dec.1990 21month(s) ~															
<b>8. SITE OR AREA</b>	Ventanilla															
<b>9. MAJOR PROPOSED PROJECT(S)</b>	<p>&lt;M/P&gt;The proposed fishing port in Ventanilla is planned as a fishery base for supplying fish products to residents in the central district of Peru, aiming at moving and expanding the functions of the present fishing port in the Callao Port. The facilities of the fishing port will be provided to meet the landing of 88,788 tons in the target year of 2005.</p> <p>i) Basic facilities * -7.5 m quay ( 91 m in length) * -4.0 m quay (480 m in length) * -2.0 m quay (510 m in length)</p> <p>ii) Function facilities * Fish market, sorting facilities * Freezer, cold storage facilities * Ice making machine * Other facilities</p> <p>&lt;F/S&gt; The purpose of the urgent plan is to develop Ventanilla fishing port having basic and functional facilities which will accommodate fishing boats of under 300GRT. with view to transfer fishing port function of existing Callao Port to ventanilla fishing port.</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">1) basic Facilities</td> <td style="width: 50%;">2) Functional facilities</td> </tr> <tr> <td>Southern Breakwater: 355m</td> <td>Sorting facilities: 1,780sq.m</td> </tr> <tr> <td>Northern Breakwater: 320m</td> <td>Cold Storage: 1,250t</td> </tr> <tr> <td>Quay Wall(-4.0): 345m</td> <td>Ice Plant: 22t/day</td> </tr> <tr> <td>Revetment: 565m</td> <td>Ice storage: 450t</td> </tr> <tr> <td>Anchorage: 16,800 sq.m</td> <td>Others</td> </tr> <tr> <td>Dredging:</td> <td></td> </tr> </table>		1) basic Facilities	2) Functional facilities	Southern Breakwater: 355m	Sorting facilities: 1,780sq.m	Northern Breakwater: 320m	Cold Storage: 1,250t	Quay Wall(-4.0): 345m	Ice Plant: 22t/day	Revetment: 565m	Ice storage: 450t	Anchorage: 16,800 sq.m	Others	Dredging:	
1) basic Facilities	2) Functional facilities															
Southern Breakwater: 355m	Sorting facilities: 1,780sq.m															
Northern Breakwater: 320m	Cold Storage: 1,250t															
Quay Wall(-4.0): 345m	Ice Plant: 22t/day															
Revetment: 565m	Ice storage: 450t															
Anchorage: 16,800 sq.m	Others															
Dredging:																

沿岸漁港開發計畫

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

(FY1991 Overseas Survey)

The proposed projects by M/P was integrated into the National Plan. In Phase I the project scale was considerably reduced and has been implemented with the government budget of FY 1991 and FY 1992.

MIPE has put high priority on this project and is willing to implement it as soon as the finance is secured. The Japanese government was requested for the financial assistance in December 1991.

(FY 1997 Domestic Survey)

No further information.

(FY 1997 Overseas Survey)

Request for financial assistance was submitted to Japanese Government in May 1997.



## STUDY SUMMARY SHEET (Basic Study)

CSA PER/S 502/92

<b>1. COUNTRY</b>	Peru	
<b>2. NAME OF STUDY</b>	The Topographic Mapping of Lima Metropolitan Area	
<b>3. SECTOR</b>	Social Infrastructure / Survey & Mapping	
<b>4. TYPE OF STUDY</b>	Basic Study	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Institute Geografico Nacional (IGN)
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	International Engineering Consultants Association Aero Asahi Corporation	
<b>7. STUDY PERIOD</b>	Feb.1990 ~ Jul.1992 29month(s) ~	
<b>8. SITE OR AREA</b>	Lima Metropolitan Area 1,570 km <sup>2</sup>	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
1.Air-Photographing Scale 1:30,000 1,570 km <sup>2</sup> 2.Tophgraphic Napping Scale 1:10,000 1,250 km <sup>2</sup> 3.Landuse Mapping Scale 1:10,000 500 km <sup>2</sup>		

リマ首都圏都市基本図作成

<b>PRESENT STATUS</b>	<p style="text-align: center;">In Progress or In Use</p> <p style="text-align: center;">Delayed</p> <p style="text-align: center;">Discontinued</p>
<p><b>Description :</b></p> <p>In spite that Air-Photographs and Topographic Maps have already completed, the Land Use Mapping is still suspended due to the unexpected tragic accident (three JICA experts were killed by terrorist).</p> <p>Utilization of the Study: Air-Photographs and Topographic Maps will be applied for promoting various urban developing project or land preserving project.</p> <p>(FY 1995 Overseas Survey) The topographic maps with a scale of 1/10,000 are utilized for the urban planning works to expand the metropolitan area, and the aerial photographs are used to grasp the circumstances at neighboring areas of the metropolitan area.</p> <p>(FY 1996 Overseas Survey) Sectors like education, mineral resources, agriculture and energy are benefited by this study. (Especially public and private institutions which carry out infrastructure projects.</p> <p>Request: (FY 1995 Overseas Survey) In future it is desirable to computerize the drawing works of topographic maps and to draw up the land utilization maps.</p> <p>(FY 1996 Overseas Survey) Update of 1/10,000 map and technical assistance are important.</p>	

## STUDY SUMMARY SHEET (M/P+F/S)

CSA PER/S 218/99

<b>1. COUNTRY</b>	Peru	
<b>2. NAME OF STUDY</b>	The Study on the Integrated Water Pollution Control for Puno Interior Bay of Lake Titicaca	
<b>3. SECTOR</b>	Administration / Environmental Problems	
<b>4. TYPE OF STUDY</b>	M/P+F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	National Institute of Development (INADE), Special Bilateral Project for Lake Titicaca (PELT), Ministry of the President
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Pacific Consultants International (PCI) Environmental Technologic Consultants Co., Ltd.	
<b>7. STUDY PERIOD</b>	Sep.1998 ~ Jan.2000 16month(s) ~	
<b>8. SITE OR AREA</b>	M/P: Puno Interior Bay (17km <sup>2</sup> ) and its surrounding catchment area(36km <sup>2</sup> ) F/S: Puno City	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>M/P:</p> <ol style="list-style-type: none"> <li>1) Sewerage System Improvement/ Sewer expansion, Wastewater treatment system improvement</li> <li>2) Solid Waste Management/ Increase of collection rate, Expansion/ Upgrade of final disposal site</li> <li>3) In-Lake Management/ Removal of Lemna, Cover of bottom sediment, Replacing of Totora.</li> <li>4) Non-structural Measures/ Environmental education and Campaign, Citizen's participation, Institutional strengthening, Land use management, Livestock farming management, Regulation of effluents, Environmental monitoring</li> </ol> <p>F/S:</p> <p>Solid Waste Management/ Procurement of collection vehicles necessary for the increase of collection rate (70% in 2008), Expansion and upgrade of final disposal site(Sanitary landfill)</p>		

チチカカ湖プーノ湾総合汚染対策計画調査

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

(FY 2000 Domestic Survey)

The German government (KfW) will offer a financial assistance for the urgent sewerage improvement project( target year: 2008). The detailed design has been to adjust the project cost to the fixed budget.

The Peruvian side has requested the Japanese government for grant aid of solid waste collection vehicles. The Japanese government has given no answer to the request.

Water Quality monitoring will progress in collaboration with the Ministry of Health.

(FY 2001 Overseas Survey)

The completion of this Study made the local authority an implementation agency of each project so that duties of the National Institute of Development (INADE) as the implementation agency were handed over. The cooperation on water and sewerage system improvement by GTZ was materialized. INADE does not indicate its intention for continuation and make any request for concretization of the project because INADE was already out of responsibility.

(FY 2003 Overseas Survey)

1.Sewerage improvement project

Funds: 20 million Deutsche mark

Details of construction: improvement of water and sewerage system including expansion of water and sewerage facilities

2.Establishment of commission: with the objective of improving the water quality of Puno Bay of Lake Titicaca, a commission consisting of the Lake Titicaca Bilateral Project, Ministry of Tourism, Ministry of Trade and Industry, Puno City Government, the Ministry of Sewage of Punoju and other private enterprises was established and is in operation.

(FY 2004 Domestic Survey)

No information to be specifically mentioned.

(FY 2005 Domestic Survey)

Subsequent project: Urgent Sewerage Improvement Project in Puno city (Tentative name)

Implementing period: 2004-2008

Implementing body: Puno city

Funding:

Funding party: Germany KfW

Amount: 20 million DEM

Objective: To improve water/sewerage system in Puno city, including expansion of water supply system

Relationship with the study: Sewerage improvement, extension of drainage network, and improvement of sewage disposal were proposed in the report as water quality improvement measures in Puno. Subsequent project aims to implement these measures.

Progress: D/D was conducted since 2003, and it seems that the construction has been nearly completed.

Others: There is a movement of Ministry of Health in cooperation with a proposal of water quality monitoring of the lake and sewerage.

(FY 2005 Overseas Survey)

10 million USD was funded by Japanese government as Grant Aid for machinery and equipments procurement solid disposal treatment management in Puno city to improve Puno city environment and quality of life of more than 120,000 residents.

# STUDY SUMMARY SHEET

(M/P)

CSA PER/S 117/00

<b>1. COUNTRY</b>	Peru		
<b>2. NAME OF STUDY</b>	The Master of Plan Study on National Tourism Development in the Republic of Peru (Phase II)		
<b>3. SECTOR</b>	Tourism / (Tourism in) General		
<b>4. TYPE OF STUDY</b>	M/P		
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Ministry of Tourism, Industry, Integration, and International Trade (MITINCI)	
	<b>PRESENT COUNTERPART AGENCY</b>		
<b>6. CONSULTANT(S)</b>	Pacific Consultants International (PCI)		
<b>7. STUDY PERIOD</b>	Nov.1999 ~ Jul.2000 8month(s) ~		
<b>8. SITE OR AREA</b>	Trujillo-Chiclayo Tourism Corridor, Tumbes-Piura Tourism Corridor, Amazon River Tourism Corridor		
<b>9. MAJOR PROPOSED PROJECT(S)</b>			
<p>1. Turujillo-Chiclayo Tourism Corridor</p> <p>1.1 Construction of the New Turujillo By-pass Road (12.84 mil.US\$)</p> <p>1.2 Tourism Improvement of Chan Chan Archeological Complex (2.79 mil. US\$)</p> <p>1.3 Tourism Improvement of Huacas del Sol y La Luna (3.92 mil. US\$)</p> <p>1.4 Development of Parque de Baluarte (4.51 mil. US\$)</p> <p>1.5 Tourism Improvement of El Brujo Archeological Site (3.73 mil. US\$)</p> <p>1.6 Beautification of Historic Center of Pacasmayo (2.41 mil. US\$)</p> <p>1.7 Development of Sipan Archeological Park (11.92 mil. US\$)</p> <p>1.8 Tourism Improvement of Batan Grande Reserve Zone (3.98 mil. US\$)</p> <p>2. Tumbes-Piura Tourism Corridor</p> <p>2.1 Development of the Hermosa Beach Resort (7.03 mil. US\$)</p> <p>2.2 Mangrove Tourism Improvement in Puerto Pizarro (0.06 mil. US\$)</p> <p>2.3 Improvement of the Tumbes Airport (5.33 mil. US\$)</p> <p>2.4 Community Development of La Encantada Ceramic Village (2.44 mil US\$)</p> <p>3. Amazon River Tourism Corridor</p> <p>3.1 Development of Allpahuayo-Mishana Museum (1.47 mil US\$)</p> <p>3.2 Tourism Improvement of the Quistococha Tourist Complex (1.72 mil. US\$)</p> <p>3.3 Tourism Improvement of the San Jauan Handicraft Market (1.22 mil. US\$)</p>			

全国観光開発マスタープラン作成調査(フェーズ )

<b>PRESENT STATUS</b>	In Progress or In Use
	Delayed
	Discontinued

**Description :**

(FY 2001 Domestic Survey)

Official presentation of the Final Report of the study was conducted by Ministry of Tourism, Industry, Integration, and International Trade (MITINCI), the counterpart organization of the study, in Trujillo City on July 20, 2001. During the presentation, Vice-Minister of Tourism of MITINCI and an advisor of MITINCI officially expressed their will to implement the project funded by JBIC. However, new Toledo administration started in August 2001 demanded the extradition of the former president Alberto Fujimori, which complicated the diplomatic relationship between Japan and Peru. As a response, JBIC has not started any new project since then.

(FY 2001 Overseas Survey)

The new request for implementing the projects which had 2 components was submitted from the Ministry of Tourism, Industry, Integration and International Trade to the JICA office. Although the one of two was to implement the similar Development Study at the other area, the request on dispatch of individual expert to guide the project implementation has been under discussion in preference to the new Development Study because of the higher priority on the project implementation based on the result of the Study (Contents of the study is to be said F/S although it was named as M/S.).

Playa Elmosa Tourist Base (a part of Tumbes - Piura Tourism Corridor Development Plan)

(FY 2003 Overseas Survey)

This project intends to develop a tourism infrastructure along the coast of Tumbes Province positioned in a coastal region established as a domestic tourism conservation area (all the coast in Tumbes Province from KAPONESU Promontory to the border with Piura Province). Out of the conservation area, a district called Playa Elmosa was selected and it will be prioritized in the tourism project within the framework of the National Tourism Development Master Plan. Fund raising: Peru government (at least 12 million US dollars is expected to be invested in its Phase I)

Construction: The coastline of approximately 6 km in length and 70 hectares in area will be improved in the first place and such facilities will be constructed as accommodations, bed and breakfast, hostels, restaurants, ecology lodges, fishing clubs. The master plan to develop Playa Elmosa has been completed and the bidding is expected to start in the end of October 2003. This project consists of the following three phases. (Phase I: tourism development of 630 rooms, Phase II: tourism development of 660 rooms, Phase III: tourism development of 525 rooms). Benefit effects: The conservation area including Playa Elmosa is positioned in the south of mangrove ecosystem of Tumbes and the water temperature fluctuates from 28 degrees in March to 25 degrees in August. This area is optimum for offshore fishing and marine sports. In addition, there are other tourism resources including a game preserve such as El Angolo, SEROSU de AMOPETA National Park, National Reserve of Tumbes Mangrove. Thus, this project is expected to play a role as a socioeconomic base of the Tumbes region.

(FY 2004 Domestic Survey)

No information to be specifically mentioned.

(FY2005 Domestic Survey)

Regime change is predicted with the presidential election to be held in 2006. Current regime was against the policies prepared under President Fujimori. However, the project may have a possibility of a realisation due to Peruvian customary to deny previous policies.

(FY 2005 Overseas Survey)

Subsequent Study: Chan Chan archaeological complex development

Implementing period: 2005-2006 Implementing body: COPESCO, The Ministry of Culture

Objectives: 1) Comprehensive study, conservation, and rehabilitation of Velarde Palace 2) extension works of drainage No. 12, 3) Conservation and Maintenance of Museum

Funding:

Funding party: Own fund Amounts: 441,922.55 PEN

Construction period: September 2005

Beneficiaries: Domestic and overseas tourists

Subsequent Study: Huacas del Sol y La Luna tourism improvement

Implementing period: 2004 - 2006 Implementing body: COPESCO, and the Ministry of Trade and Tourism

Objective: 1) Road improvement between both pyramids, 2) road signs on access roads, and 3) technical training, awareness raising and tourism promotion

Funding:

Funding party: own funds Amount: 2,540,397.00 PEN

Construction period: July 2005 Progress: 35%

Beneficiaries: : Domestic and overseas tourists, 3,315,304 residents

Subsequent Study: Tourism improvement of El Brujo archaeological site

Implementing period: 2004-2006 Implementing body: COPESCO, the Ministry of Trade and Tourism, Ministry of Culture

Funding:

Funding party: own funds Amount: 247,476.63 PEN (Ministry of Trade and Tourism - 247,476.63PEN)

Construction period: October 2005 Progress: 15%

Contents: Reinforcement of ruins, preservation of coloured decoration

Beneficiaries: 35,275 tourists

Subsequent Study: Tourism Improvement of Batan Grande Reserve Zone

Implementing period: 2004-2007 Implementing body: COPESCO, Regional Government and Ministry of Trade and Tourism

Objectives: 1) Sign establishment, 2) utilization of tourism resources, 3) rehabilitation of an access road to the historical holy places

Funding:

Funding party: Own funds Amount: 427,022.69 PEN (Ministry of Trade and Tourism - 327,022.69 PEN, and 100,000 PEN)

Construction period: October 2005 Progress: 15%

Beneficiaries: Domestic and overseas tourists, 13,731 residents

Subsequent Study: Amazon river tourism corridor development

Implementing period: 2004-2005 Implementing body: COPESCO, the Ministry of Trade and Tourism

Objectives: Tower construction

Funding:

Funding party: Own funds Amount: 1,648,339.37 PEN ( Ministry of Trade and Tourism - 778,669PEN, and 397,730.33PEN, local government - 472,749.9PEN)

Beneficiaries: Domestic and overseas tourists, 35,275 residents

## STUDY SUMMARY SHEET (Other Studies)

CSA PRY/S 601/76

<b>1. COUNTRY</b>	Paraguay	
<b>2. NAME OF STUDY</b>	La Colmena Highway (Follow-Up)	
<b>3. SECTOR</b>	Transportation / Road	
<b>4. TYPE OF STUDY</b>	Other Studies	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Dept.of Road, Ministry of Public Works and Communications
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Central Consultant, Inc.	
<b>7. STUDY PERIOD</b>	Sep.1976 ~ Jan.1977 4month(s) ~	
<b>8. SITE OR AREA</b>	Acaai - La Colmena in the south of Asuncion	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>Following the F/S undertaken by a USA consulting firm on the road between Carapeguara and La Colmena, the study reviewed the F/S on the section between Acaai and La Colmena and proposed the following development:</p> <ul style="list-style-type: none"> <li>-Road construction (28.5 km, surface treatment by the two-layer method); and</li> <li>-Bridge construction (replacement of 8 bridges, new construction of culverts at 3 bridges).</li> </ul>		

ラ・コルメナ道路アフターケア

<b>PRESENT STATUS</b>	<p>In Progress or In Use</p> <p>Delayed</p> <p>Discontinued</p>
<p><b>Description :</b></p> <p>Finance:  Sep30..1977 L/A 1,850 mil.yen  *Contents of project: Road improvement for the section between La Colmena and Acaai (28.5km)</p> <p>Construction:  Apr.1979 Commenced  Apr.1982 Completed</p> <p>Situation after Completion:  (FY 1994 Domestic Survey)  As of 1994, no serious damage was observed on the paved road, however, some repair works should be implemented on several points. Currently, the renovation of the arterial roads has been implemented throughout the country. Therefore, this route may be renovated as a part of the arterial road renovation project.</p> <p>(FY 1995 Overseas Survey)  In 1995 the reinvestigation works on this route was completed. As a result, it is concluded that connecting major agricultural and livestock farming areas, this route promote the supply of foodstuff from these areas to the capital city of Asuncion. Furthermore, it is expected to encourage the orchard industry at the area along this route. The extension of this highway further down south from the Capital is under consideration.</p>	



# STUDY SUMMARY SHEET

(F/S)

CSA PRY/S 301/78

<b>1. COUNTRY</b>	Paraguay		
<b>2. NAME OF STUDY</b>	Fleet Expansion Project		
<b>3. SECTOR</b>	Transportation / Marine Transportation & Ships		
<b>4. TYPE OF STUDY</b>	F/S		
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Flota Mercante del Estado (FME)	
	<b>PRESENT COUNTERPART AGENCY</b>		
<b>6. CONSULTANT(S)</b>			
<b>7. STUDY PERIOD</b>	Mar.1978 ~ Oct.1978 7month(s) ~		
<b>8. SITE OR AREA</b>			
<b>9. MAJOR PROPOSED PROJECT(S)</b>			
<p>FME's vessels, including 8 vessels purchased by the OECF loan of 1957, are now superannuated and their service ratio shows a marked decline. The study examined the technical and economic feasibility of the fleet expansion program proposed by the Government of Paraguay.</p> <p>1) Ocean-going vessels (cereals, general and container cargo)              one 6,000DWT-ship and two 1,500DWT-ships</p> <p>2) Dry-cargo barge systems (general cargo, cereals, cement, etc.)              1) 20 barges (365DWT), 2 pushers (1,200PS) and 1 pusher (300PS)              2) 10 barges (800DWT) and 1 Pusher/tug (2,400PS)</p> <p>3) Oil barge system (crude and diesel oil, liquid gas, etc.)              4 barges(2,000 cu.m) and 1 Pusher/tug (2,400PS)</p> <p>Note: 1) OECF loan 2) BOT.EXIM loan</p>			

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

## Finance:

Jun.28.1979 L/A (Fleet Expansion Project, 7,500 mil.yen)\*1

BOT.EXIM loan (approx.10.5 bil.yen)\*2

## \*1-Contents of OECF loan

## (1)Contents of Project

## 1.Construction of vessels

- 1)Ocean-going vessel 6,000 DWT 1
  - 2)Ocean-going and river vessel 1,500DWT 1
  - 3)Pusher/tug 5
  - 4)Oil barge 4
  - 5)800 DWT barge 10
  - 6)360 DWT barge 20
- 2.Consulting service
- 3.Spare parts for existing 8 vessels

## (2)Subject of Loan

- 1-3), 5), 2 and 3 of project above

## \*2-BOT.EXIM Loan

Mar.1.1983 signed (8,812 mil.Yen)

## Realized Project:

Jan.1986 Entire fleet delivered

## Dispatch of Expert:

Sep.1987-Sep.1989 Technical assistance on Transportation  
Management by Japanese experts.

# STUDY SUMMARY SHEET

(F/S)

CSA PRY/S 302/79

<b>1. COUNTRY</b>	Paraguay	
<b>2. NAME OF STUDY</b>	New Airport Construction Project in Ciudad Presidente Stroessner	
<b>3. SECTOR</b>	Transportation / Air Transportation & Airport	
<b>4. TYPE OF STUDY</b>	F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Civil Aviation Administration (ANAC)
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Japan Airport Consultants, Inc.	
<b>7. STUDY PERIOD</b>	Apr.1979 ~ Feb.1980 10month(s) ~	
<b>8. SITE OR AREA</b>	24km west of Ciudad Del Este which is situated on the border with Brazil	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>The new airport will be constructed in two stages.</p> <p>1) Airfield facilities Runway(3,400m x 45m); taxiways (161m x 23m x 2); passenger apron (42,443 sq.m in 1994, 55,107 in 2004); cargo apron (6,831 sq.m in 2004); general aviation apron (52,500 sq.m in 1994, 70,000 in 2004).</p> <p>2) Buildings Passenger terminal (8,100 sq.m in 1994, 14,200 in 2004); cargo terminal (1,800 sq.m in 1994, 5,100 in 2004).</p> <p>3) Airport equipment Aeronautical telecommunications 1 set; radio navigational aids (ILS Category 1, VOR/DME, NDB); airfield lighting 1 set; airport surveillance radar 1 set; meteorological service 1 set.</p> <p>4) Power supply and fuel supply facilities</p> <p>*Cost 1) is for Stage I construction, and 2) for Stage II construction.</p>		

ストロエスネル新空港建設計画 / 東部国際空港建設計画 (1989.8から)

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed Partially Completed Implementing Processing	Delayed or Suspended   Discontinued or Cancelled
<p><b>Description :</b></p> <p>Subsequent Studies: Mar.1983 D/D completed (Japan Airport Consultants, Inc.)</p> <p>Finance: Dec.5.1980 L/A 11.3 bil.yen (New Airport Construction Project in Ciudad Presidente Stroessner) Nov.1990 L/A changed (for domestic currency)</p> <p>Construction: Apr.1987 Start of construction authorized Jan.1988 Camp established Feb.1989 After the coup d'etat, the new President Gonzalez directed to scale down the project. Aug.1989 The name of the airport changed to Este International Airport Dec.1990 The contract of construction is being adjusted Mar.1994 Construction works of the signal tower and settlement of the antenna, completed Oct.1994 completed</p> <p>Situation: (FY 1994 Domestic Survey) According to the survey, the newly completed airport has not been made operational for international flights due to the delay in getting approval from the Gov't and has currently been served by a domestic flight per day.</p>		

# STUDY SUMMARY SHEET

## (F/S)

CSA PRY/A 301/82

<b>1. COUNTRY</b>	Paraguay	
<b>2. NAME OF STUDY</b>	Northwest Lake Ypoa Agricultural Development Project	
<b>3. SECTOR</b>	Agriculture / (Agriculture in) General	
<b>4. TYPE OF STUDY</b>	F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Instituto de bienestar rural
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Naigai Engineering Co., Ltd. Kokusai Kogyo Co., Ltd.	
<b>7. STUDY PERIOD</b>	Nov.1980 ~ Mar.1982 16month(s) ~	
<b>8. SITE OR AREA</b>	Northwest of the Lake Ypoa	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
Proposed components (40,000ha) -Polder : 35km -Drainage canal Main/Sub: 154/258km -Road Main/Sub : 84/288km -Irrigation facilities : 2,000ha -Cultivation : 40,000 ha -Preparation of community : 4 sites -School : 10 sites -Hospital : 1 site -Health center : 3 sites		

イボア湖北西部農業開発計画

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

Reasons for Delay or Suspension:

(FY 1995 Domestic Survey)

Difficulty in procuring fund

(FY 1992 Overseas Survey)

Department of National Park Wildlife founded in the Ministry of Agriculture and Livestocks, registered the area as "Lake Ypoa National Park" in 1992. The size of the area is 100,000 ha covering Lake Ypoa, Lake Cabral and Lake Bela.

(FY 1997 Domestic Survey)

A part of target area is inside a national park, therefore the realization of project is difficult unless the plan is revised.

(FY 1997 Overseas Survey)

The implementation of the project seems difficult because the target area was designated as a national park in 1992.

The reasons for discontinuance is that the Paraguayan government did not understand the scheme and schedule well and did not procure fund for the project.

Situation:

(FY 1995 Overseas Survey)

Reinvestigation and the official notice of the "Lake Ypoa National Park" have been carried out based on the regulations of RAMSAR Treaty signed on 1994. In order to develop this area successfully, it is necessary to fulfil almost all of the public opinions concerned, to examine the land owners or representatives carefully, and to ask the participation of the local organizations from the planning stage.

For the implementation of the F/S, it should be made arrangements and negotiations among the Government, the financing authorities and the local organizations.

# STUDY SUMMARY SHEET

## (M/P+F/S)

CSA PRY/S 201B/83

<b>1. COUNTRY</b>	Paraguay	
<b>2. NAME OF STUDY</b>	National Telecommunications & Broadcasts Development Project	
<b>3. SECTOR</b>	Communications & Broadcasting / (Comms. & Broad. in) General	
<b>4. TYPE OF STUDY</b>	M/P+F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	ANTELCO
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Nippon Telegraph & Telephone Corporation Kokusai Denshin Denwa Co, Ltd. Japan Telecom. Eng. and Consulting Service (JTEC)	
<b>7. STUDY PERIOD</b>	Jul.1981 ~ Jun.1983 23month(s) ~	
<b>8. SITE OR AREA</b>	M/P for the entire country: F/S for Asuncion Area, Concepcion, Hohenau, San Pedro, Villarrica, Carapegua	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
M/P(1983-97)		
1) Domestic telecommunications. 336,000 lines of subscriber telephones/ 3,394 public telephones/3,060 rural telephones/ digitized local exchanges/ 14 optical fiber systems/ 10 microwave routes/ 7 television transmission routes, etc.		
2) International telecommunications International circuits/ modification of the Aregua earth station/ international subscriber dialling/ a second earth station,etc.		
3) Development of the Radio Regulation and Monitoring System		
4) Establishment of a National Educational Television Service		
5) Personnel development		
F/S(Stage I< 1983-87)		
1) Introduction of an international subscriber dialling system in the Asuncion area		
2) Introduction of a digital switching system in the Asuncion area (11 exchanges by the end of 1997)		
3) Consolidation of rural telephone systems in five areas (Conception, Hohenau, San Pedro, Villarrica, Carapegua) by 8-channel multiple access subscriber(MAS) radio systems		

電気通信拡充計画(電気通信・放送拡充計画のF/S)

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

(1)Automatic International Dialing

Finance:

Nov.1985 L/A 1,420 mil.yen (Automatic International Dialing)

\*Contents of project

1. International Communication system
  - a)International digital exchange machine
  - b)Earth Station improvement

2. consulting service

(loan for the part of foreign currency of project mentioned above)

Construction:

Oct.1988 Earth station and International digital exchange machine in use

(2)Second Earth Station

Subsequent Studies:

1988 F/S undertaken

Finance:

Feb.25.1994 L/A 3,234 mil.yen

(3)Others

ATELCO has signed a provisional contract in Nov.1991 with Siemens for the installation of 30,000 telephones, and formulated a telephone network expansion plan in cooperation with ITU.

Situation:

(FY 1995 Overseas Survey)

This project is consisted of various sub-projects. The implementation of the main portion has been completed and a remained part is now processing and the other remained part is suspended.

To develop and to expand the service area of radio regulation/ monitoring system and the standard of registration of the radio listners seem to be possible at certain range, however it is not enough to fulfil the demands. Conformation of the administrative organization for establishment of the state-owned educational television is not implemented due to lack of various resources. Training project is carrying on by IPT in order to supply the qualified professionals with certain necessary technological level for the increasing necessities.

(FY 1995 Domestic Survey)

Data are not available due to the person in charge had been shifted to the other place.



# STUDY SUMMARY SHEET

## (Basic Study)

CSA PRY/A 501/83

<b>1. COUNTRY</b>	Paraguay	
<b>2. NAME OF STUDY</b>	Forest Inventory in the Northeastern Region	
<b>3. SECTOR</b>	Forestry / Forestry & Forest Conservation	
<b>4. TYPE OF STUDY</b>	Basic Study	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	National Forest Service The Republic of Paraguay
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Japan Forest Technical Association Kokusai Kogyo Co., Ltd.	
<b>7. STUDY PERIOD</b>	Jul.1980 ~ Feb.1984 43month(s) ~	
<b>8. SITE OR AREA</b>	An area of 15,000 sq.km of Department of Amamby, Concepcion, San Pedro and Canediyu	
<b>9. MAJOR PROPOSED PROJECT(S)</b>	<p>The forest management plan was presented containing following components for the above mentioned area which was the largest forest area in Northeastern region of Paraguay. This area's forest rate is 60%.</p> <ol style="list-style-type: none"> <li>1)Promotion of advanced utilization of land</li> <li>2)Normalization of forest operation</li> <li>3)Sustained yield management of forest</li> <li>4)Promotion of re-afforestation</li> <li>5)Promotion and maintenance of function of public benefit of forest</li> </ol>	

<b>PRESENT STATUS</b>	In Progress or In Use
	Delayed
	Discontinued

**Description :**

## Utilization of the Study:

Afforestation projects are being encouraged particularly among the cattle ranchers, because of the serious deforestation reported by the study.

## (FY 1995 Overseas Survey)

The results of this study work are utilized for certain purpose at the limited area.

Especially, the data of retaining volume of forest resources are very useful and used to make administrating, managing and utilizing plans for the forest of target area.

## (FY 1997 Overseas Survey)

The results of the study have been incorporated into the National 5-year Development Plan.

\*This study will not be followed up from FY 1998. (the outputs of study are being utilized)

# STUDY SUMMARY SHEET

(M/P)

CSA PRY/A 101/84

<b>1. COUNTRY</b>	Paraguay																
<b>2. NAME OF STUDY</b>	Irrigation and Drainage Project in the Adjacent Area to the Yacyreta Dam																
<b>3. SECTOR</b>	Agriculture / (Agriculture in) General																
<b>4. TYPE OF STUDY</b>	M/P																
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Ministerio de Agricultura y Ganaderia															
	<b>PRESENT COUNTERPART AGENCY</b>																
<b>6. CONSULTANT(S)</b>	Japan Agricultural Land Development Agency																
<b>7. STUDY PERIOD</b>	Dec.1982 ~ Mar.1985 27month(s) ~																
<b>8. SITE OR AREA</b>	South east edge of enormous Parana Swamp located in right hand basin of Parana in the south of this country (population 150,000, Area 150,000, latitude 27'10" to 27'20"s and longitude 56'25"to 57'10"w)																
<b>9. MAJOR PROPOSED PROJECT(S)</b>																	
<table style="width: 100%; border: none;"> <tr> <td style="width: 20%;">Irrigation Canal</td> <td style="width: 10%;">1,275km</td> <td style="width: 70%;"></td> </tr> <tr> <td>Drainage Canal</td> <td>1,173 km</td> <td></td> </tr> <tr> <td>Pumping place</td> <td>3 sets,</td> <td></td> </tr> <tr> <td>Agricultural Land Reclamation</td> <td>92,920 ha</td> <td></td> </tr> <tr> <td>Road</td> <td>474 km</td> <td></td> </tr> </table> <p>Agricultural processing facilities, Agriculture extension organization, Supplying system of improved seeds, Union to maintain facilities, Pilot farm (approximate scale 1,000 ha)</p>			Irrigation Canal	1,275km		Drainage Canal	1,173 km		Pumping place	3 sets,		Agricultural Land Reclamation	92,920 ha		Road	474 km	
Irrigation Canal	1,275km																
Drainage Canal	1,173 km																
Pumping place	3 sets,																
Agricultural Land Reclamation	92,920 ha																
Road	474 km																

ヤシレタダム隣接地域農業総合開発計画

<b>PRESENT STATUS</b>	<p>In Progress or In Use</p> <p>Delayed</p> <p>Discontinued</p>
<p><b>Description :</b></p> <p>Construction of the Yacyreta Dam (FY 1993 Overseas Survey) It is planned to commence to pour water into the dam in fiscal year of 1994 or 1995. The feasibility study of the plan for utilization of dam water is required. (FY 1995 Overseas Survey) The environmental effects of the dam construction for surrounding area are now under investigation.</p> <p>Dispatch of Expert: (FY 1997 Overseas Survey) Mar.10~Mar.31.1995 Study on drainage and road at the area of 5,000 ha acquired by IBR was carried out by a short-term expert.</p> <p>Utilization of the Study: (FY 1992 Overseas Survey) In 1992, Instituto de Bienestar Rural purchased the farmland (5,000ha) adjacent area to Ayolas and commenced settlement of small farmers. This plan is to be expanded in the future. (FY 1993 Overseas Survey) Farmers resided at the site are migrating and/or trying to get new area to live under the guidance of the authority concerned. (FY 1996 Overseas Survey) The outputs of this study has been utilized for surrounding area development. IBR reflected information and proposals obtained in this study for the 5000ha of residence area. Private sector which produce rice at San-Cosmel and Carmen del Parana analyzed the study's data to utilize water from Yacyreta. (FY 1997 Overseas Survey) The results of the study have been utilized as basic data by both private and public sector. Similar M/P was elaborated in Argentine side.</p> <p>Other Situations: (FY 1993 Overseas Survey) At the time of JICA's development survey, there were no participation of beneficial inhabitants. However, in future, it will be recommended to let these people participate according to the changes in surroundings. (FY 1995 Overseas Survey) The data obtained by this M/P are old, however, they are still very useful. In order to study the agricultural development in case of the paddy cultivation is commenced at this area it becomes necessary to research the way of irrigation, drainage, and to evaluate their environmental influences. Paraguay side desires to establish a center to transfer Japanese technologies. (FY 1997 Overseas Survey) This study has contributed to increase consciousness about low land agriculture.</p>	

# STUDY SUMMARY SHEET

(F/S)

CSA PRY/A 302/84

<b>1. COUNTRY</b>	Paraguay	
<b>2. NAME OF STUDY</b>	Survey for the Afforestation Project in Capiibary	
<b>3. SECTOR</b>	Forestry / Forestry & Forest Conservation	
<b>4. TYPE OF STUDY</b>	F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	National Forest Service, The Republic of Paraguay
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Japan Forest Technical Association Kokusai Kogyo Co., Ltd.	
<b>7. STUDY PERIOD</b>	Aug.1983 ~ Mar.1985 19month(s) ~	
<b>8. SITE OR AREA</b>	An area of 272.5 sq.km in Capiibary district of San Estanisrao City of San Pedro Department	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>Based on the results of investigations on related natural and socioeconomic conditions, a basic plan comprising land use principles and forest management systems was formulated. Using this basic plan, the project plan was prepared and consists of the following components. The duration of the project is assumed to be 50 years after the initiation.</p> <p>1) Reforestation Plan: The planned reforestation totally covers 6,628ha during 6 years.</p> <p>2) Breeding Plan: The necessary seedlings for the above activity, totally amounting to some 30,000 are to produced. The total area of nursery site including the various facilities is planned as some 8ha.</p> <p>3) Forest Road Plan: Some 107km of forest roads is to be constructed during 6 years.</p> <p>4) Felling Plan: Some 6 million cu.m would be felled for the 50 years.</p> <p>5) Facilities Plan: Administrative facilities, which are needed for the project implementation, including the central office eand durmitory are to be constructed.</p> <p>6) Sales Plan: The total sales price of the above total cutting volume is estimated as some 800 billions Gs.</p>		

カピバリ地区森林造成計画

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

The Government planned to implement the afforestation project with an OECF loan, but has not been successful to date.

Project type technical cooperation by JICA has been carried out since 1987 (Reforestation Project in Central Paraguay; 1987 - 1992).

(FY1993 Overseas Survey)

Afforestation works for the sandy areas are implementing by means of the funds with an amount of Yen 376 million during 1988 to 1994.

In future, this activity will be expanded whole over the country.

It has been requested to let local counterparts to join with the decision makings on the various technical matters, and also to participate similar training courses which will be held in some countries nearby.

(FY1994 Domestic Survey)

The project is under way.

(FY1995 Domestic Survey)

An information said that the implementation of above-mentioned project has been completed.

(FY1995 Overseas Survey)

As it is very profitable to sale the products of forestry, the sales business is carrying on by means of the investments consisted of 403 million J\$ from JICA and 128 million Gs from Paraguayan side, respectively.

More than 20 engineers and/or technicians are being trained either in Japan or Paraguay, and more than 96 of various kinds of technical workers and specialists are being fostered by vocational training in this field.

To afforest the Capiibary zone, the traditional farm-land or meadows, it is expected to create new industry and employment opportunities and also better environmental effects for this area.

# STUDY SUMMARY SHEET

## (M/P)

CSA PRY/S 101/86

<b>1. COUNTRY</b>	Paraguay	
<b>2. NAME OF STUDY</b>	The Transportation Facilities Improvement Project of the Asuncion Metropolitan Area	
<b>3. SECTOR</b>	Transportation / Urban Transportation	
<b>4. TYPE OF STUDY</b>	M/P	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Municipality of Asuncion City
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Yachiyo Engineering Co., Ltd. Aero Asahi Corporation	
<b>7. STUDY PERIOD</b>	Aug.1984 ~ Aug.1986 24month(s) ~	
<b>8. SITE OR AREA</b>	Asucion Metropolitan Area(Asuncion City + 10 other cities 71,000ha.	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>The M/P consists Road Plan, Urban Road Plan and Public Transportation Plan.</p> <p>1) Road Network Plan</p> <ul style="list-style-type: none"> <li>- Urban Arterial Road Plan - Rural area arterial Road Network</li> <li>- Rural area connecting Road among urbans - Semi Arterial Road</li> </ul> <p>2) Road Improvement Project</p> <ul style="list-style-type: none"> <li>- Av. Ayala-Av.R.Francia Improvement Project</li> <li>- Av.Espana-Av.San Teresa Improvement Project</li> <li>- Lambare-San Antonio Improvement Project</li> <li>- Urban Outer Rink Road Improvement Project</li> </ul> <p>3) Urban Area Road Plan</p> <p>Plan of classifying pedestrian, automobile and bus road</p> <p>4) Public Transportation Plan</p> <ul style="list-style-type: none"> <li>- Reformation of bus network</li> <li>- Bus Facilities Plan</li> </ul> <p>(bus terminal, exclusive bus truck, and transit passenger terminal)</p>		

アスンシオン首都圏都市交通整備計画

<b>PRESENT STATUS</b>	In Progress or In Use
	Delayed
	Discontinued

**Description :**

## Subsequent Studies:

"Transportation Facilities Improvement Project of the Asuncion Metropolitan Area (F/S) (1988)."

## \*Components of Study

- Improvement of East-West and North-South Corridors
- Improvement of streets and traffic signal control in Minicentro area
- Construction of a bus terminal near the market No.4

\*Refer to "Transportation Facilities Improvement project of the Asuncion Metropolitan Area (F/S) (1988) " for detail.

## Detail:

(FY 1993 Overseas Survey)

Due to the coup d'etat, the change of the national economic policy, etc. the project has made little progress except for a part of the construction works.

On the other hand, some construction works, which had not been included in the initial plan, were implemented as an alternative to address the urgent problems. Its reevaluation must be conducted.

(FY 1995 Domestic Survey)

MOPC has officially requested to provide the assistance for the improvement of the road surrounding the urban area of Asuncion.

(FY 1995 Overseas Survey)

This project needs to be implemented, referring to the environment improvement plan of Asuncion and the surrounding area. The construction works proposed in the M/P report have been implemented only partially.

(FY 1997 Domestic Survey)

Trunk roads in Metropolitan area except for Asuncion federal district, were rehabilitated by Ministry of Public Works.



# STUDY SUMMARY SHEET

## (M/P+F/S)

CSA PRY/S 202B/86

<b>1. COUNTRY</b>	Paraguay	
<b>2. NAME OF STUDY</b>	Storm Drainage System Improvement Project in Asuncion City	
<b>3. SECTOR</b>	Social Infrastructure / River & Erosion Control	
<b>4. TYPE OF STUDY</b>	M/P+F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	CORPOSANA
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	CTI Engineering Co., Ltd.	
<b>7. STUDY PERIOD</b>	Jul.1985 ~ Jan.1987 18month(s) ~	
<b>8. SITE OR AREA</b>	Ytay and Mburicao Rivers of Asuncion City	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>&lt;M/P&gt;</p> <p>1)Development plan 1986-1995 Combination of river improvement, drainage facilities and discharge control for three rivers (Ytay, Mburicao and Lambre)</p> <p>2)Development plan 1996-2005 Combination of river improvement and drainage facilities for the rest of rivers</p> <p>&lt;F/S&gt;</p> <p>The storm water control works will be basically carried out by means of river channel improvement and the installation of drainage facilities in both Mburicao and Itary river basins. Besides, at the downstream end of the improved section of the Itary River, the retarding will be constructed to cope with the anticipated increase of discharge due to the proposed improvement works in the upper reaches of Aviadores del Chaco Avenue in accordance with the results of the Master Plan. The outline of the major projects include river improvement of 21.2 km, retarding basin, construction of bank protection work of 97,000 m2, falling works of 32 units, river bed protection of 7,800 m2, bridge of 48 units, etc.</p>		

アスンシオン市雨水排水施設整備計画

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

(1)Construction works are in progress at emergent areas.

1.Boggiani Av and Eusebio Ayala Av

Finance:own fund (12,890,090 G)

Construction:Dec.1995~Jan.1996 Drainpipe and drain

2.Marcelino Perez St (Antelco)

Finance:own fund (85,583,708 G)

Construction:Jan.1995~Mar.1995 Drainpipe

3.Te.Canete St and Marcelino Perez St (Antelco)

Finance:own fund (8,371,304 G)

Construction:Nov.1996~Dec.1996 Water canal (38 m)

4.Camacho Dure and Tte.Canete

Finance:own fund (1,803,992 G)

Construction:Mar.1995~Mar.1995 Drainpipe and drain

5.Mariscal Lopez Av, Gral Garay and Tte Vera

Finance:own fund (114,091,695 G)

Construction:Mar.1996~May.1996 Drainpipe and drain

6.Malutin St and Quesada

Finance:own fund (212,509,739 G)

Construction:Jul.1996~Sep.1996 Drainpipe and drain

7.S.Bogarin Av and Mburicao-Mi Av

Finance:own fund (108,853,794 G)

Construction:Sep.1996~Nov.1996 Drainpipe and drain

8.Madame Lynch Av

Finance:

Construction:to be started in 1997 Expansion and rehabilitation of M.L Av, construction of 3 overpasses, surface drainage system

9.Tender for 7 projects proposed by M/P on Storm Drainage System Construction/Rehabilitation is planned.

Total investment:96 mil. G

(2)Extension of drainage facilities and attached facilities

(FY 1998 Domestic Survey)

It was partially completed with their own fund.

Situation:

(FY 1991 Overseas Survey)

CORPOSANA has been in preparation for the implementation of a part of projects, cooperating with the City of Asuncion and the Ministry of Public Works.

(FY 1993 Overseas Survey)

CORPOSANA has been working to finance the urgent projects in cooperation with the municipalities in the project area.

Due to the financial constraints, CORPOSANA has been transferring the project to the concerned municipalities. Or, the project implementation would depend on the fact that how much of funds will be allocated to CORPOSANA by the central government.

(FY 1995 Domestic Survey)

Although the City of Asuncion will be in charge of the management of the drainage facilities, CORPOSANA has been requesting the Japanese government for the grand aid to procure equipment and materials for this project.

(FY 1995 Overseas Survey)

It is considered effective to shift the construction works under the control of the beneficial municipalities, which can finance the project with the collected tax. CORPOSANA resumed the negotiation with the concerned municipalities to discuss about this matter and the establishment of a branch office of CORPOSANA in each municipalities.

(FY 1996 Domestic Survey)

It is said that the municipality will take over this project. Because of that, the project has been suspended.

(FY 1996 Overseas Survey)

Technical committee composed of municipality and CORPOSANA was established. The committee discuss about actual problem and implementation of projects. A law, including the transfer of execution body to municipality, was submitted to Parliament. Discussion on this matter will be continued this year.

Financial problem has caused a delay. In spite of the effects of CORPOSANA to expand water service nationwide, its coverage rate is in the lowest level in Latin America.

(FY 1997 Domestic Survey)

There is a possibility that dredging and improvement of drainage canal be a grant aid project.

(FY 1997 Overseas Survey)

The project has been delayed due to financial shortage of CORPOSANA. Paraguayan side expects for financial assistance from Japan, and at the same time is preparing for requesting fund to other international organizations.

Review study and expansion of target area are needed because more than 10 years have passed since the completion of the study.

The importance of drainage system improvement has arouse influenced by El Nino phenomenon.

# STUDY SUMMARY SHEET

## (M/P)

CSA PRY/A 102/87

<b>1. COUNTRY</b>	Paraguay	
<b>2. NAME OF STUDY</b>	The Principal Grain Production Increase Project in the Central Area of the Department of Itapua	
<b>3. SECTOR</b>	Agriculture / (Agriculture in) General	
<b>4. TYPE OF STUDY</b>	M/P	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Ministry of Agriculture and Livestock
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Japan Agricultural Land Development Agency	
<b>7. STUDY PERIOD</b>	Jul.1985 ~ Mar.1988 32month(s) ~	
<b>8. SITE OR AREA</b>	Central Part of Itapua District located in the South of this country (Population 110,000, Area 510,000, latitude 26'35" to 27'20" S and Longitude 55'19" to 56'15" W)	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>Seeds supply, Study and extension of agriculture,  Road : 856 km Agricultural land reclamation : 84,000 ha  Soil conservation : 117,600 ha Afforestation : 24,700 ha  Paddy irrigation : 5,580 ha Drainage canal : 14 km  Stock facilities, Establishment of fund to increase main grains production, Improvement of small farmers, Electrification of rural area.  The following particular programmes have been formulated taking into account the basic concept with emphasis on soybean, wheat, rice and cotton.  1) Seed supply programme 2) Agricultural research and diffusion programme  3) Farm road project (127km long of principal road, 264km of main road and 465km of branch road) 4) Agricultural land development projet(84,000ha)  5) Soil conservation project (117,600ha) 6) Afforestation project (24,700ha) 7) Paddy field irrigation (5,580ha) 8) Drainage project (14km long) 9) Grain storage facility (20,000ton of capacity) 10) Social infrastructure improvement project (electrification, education, medical service, telecommunication etc.) 11) Financial supporting service (establishment of agricultural fund) 12) Small size farmers supporting programme</p>		

イタプア県中部地域主要穀物増産計画

<b>PRESENT STATUS</b>	In Progress or In Use
	Delayed
	Discontinued

**Description :**

## Utilization of Outputs:

This project has been utilized by public organizations, private sectors and international organizations as a reference to grain production projects.

(FY 1997 Overseas Survey)

The results of the study have been incorporated into Agricultural Development Policy(1990-1997).

## (1)Project-Type Technical Cooperation

"Main Grain Crops Production Project" (June 1, 1990 -May 31, 1995)

The Project aims to conduct a research over the following subjects and to provide an advice to increase the production of main grain crops, such as soybeans, wheat, etc.

- 1) Breeding and management of improved varieties
- 2) Development of suitable technology to produce certified seeds
- 3) Improvement of cropping system for soil conservation

(FY 1995 Overseas Survey)

This project is expected to finish in 1995. However, the beneficiaries desire to continue and expand these kind of technical cooperation, especially the supply of seeds, for the next ten years, until the project bears its fruits, because this project is considered highly effective.

(FY 1997 Overseas Survey)

Technology has been utilized by CRIA, cooperatives, private companies and farmers.

## (2)Road

## Finance

Apr.94 E/N 982 mil. yen. (project to Improve Rural Roads in Itapua Department.)

Aug.94 E/N 627 mil. yen. (project to Improve Rural Roads in Itapua Department II.)

(FY 1995 Domestic Survey)

Construction of Road in the targeted area

It has been implemented with the machinery provided by the OECF loan.

(FY 1996 Overseas Survey)

Construction and rehabilitation of roads have commenced.The construction is now on going in the segment of Carmen del Parana - Pirapo(127km)

## (3)Completed Projects

(FY 1995 Overseas Survey)

Supply of seeds, drawing of the agricultural experiment plan, cultivation of soybeans, maize and sunflower at the Local Agricultural Research Centers and the construction of rural roads at the surrounding area have been already completed. Any other project has not been commenced.

## Effects:

(FY 1996 Overseas Survey)

New varieties of soy bean, wheat and sunflower have been developed. Now they are diffused to local producers.

As a result of increase of grain production, storage facility, road, transportation facility, agricultural machinery, infrastructure for agro-industry were built.

# STUDY SUMMARY SHEET

(F/S)

CSA PRY/S 303/88

<b>1. COUNTRY</b>	Paraguay	
<b>2. NAME OF STUDY</b>	Transportation Facilities Improvement Project of the Asuncion Metropolitan Area	
<b>3. SECTOR</b>	Transportation / Urban Transportation	
<b>4. TYPE OF STUDY</b>	F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Municipality of Asuncion
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Yachiyo Engineering Co., Ltd.	
<b>7. STUDY PERIOD</b>	Sep.1987 ~ Oct.1988 13month(s) ~	
<b>8. SITE OR AREA</b>	Asuncion metropolitan area	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>1) The following road project for East-West corridor in Asuncion.</p> <ul style="list-style-type: none"> <li>- Improvement of M.Estigarribia road and Avenue E. Ayala (expansion)</li> <li>- Improvement of connection road between Av. Ayala and Av.Francia (expansion)</li> <li>- Improvement of Av.R.Francia (expansion)</li> <li>- Construction of Public Market No. 4 and bus terminal (new facility)</li> <li>- Improvement of streets/roads in rural area (traffic, signal, parking area, etc.)</li> </ul> <p>2) Improvement of Av.MME.Lynchi of South-north corridor in Asuncion (expansion)</p> <p>3) Extension of Av.Espana (new construction)</p>		

アスンシオン首都圏都市交通施設整備計画

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

This project has been derived from the Transportation Facilities Improvement Project of the Asuncion Metropolitan Area 1986 (M/P).

## Subsequent Study:

(FY 1997 Domestic Survey)

Nov.1993 Request for technical cooperation for review

Jun.1997 Request for F/S

Dec.1997 S/W for F/S

(Transportation Facilities Improvement Project of the Asuncion Metropolitan Area Aftercare Study)

July 1999 Aftercare study (M/P+F/S) was undertaken

(1)Improvement of Madam Rinch Av.(expansion)

(FY 1997 Overseas Survey)

Finance:IDB

Construction: on-going, is to be completed by 2000 (FY 1998 Domestic Survey).

(2)Construction of new bus terminal

(FY 1997 Overseas Survey)

Finance:Private Fund

Construction: completed

(3)Pavement works

(FY 1997 Overseas Survey)

Finance:World Bank

Construction: on-going

## Situation:

After the completion of the feasibility study, the political situation become fluid because of the coup d'etat in Feb.1989, and the mayoralty election in May 1991, among other. The proposals of the feasibility study and the application for the Japanese financing have been under review, but no specific decision has been made to date.

The introduction of car-free suggested as one of measures for the roads the Centro has been implemented once a week since June 1991.

The improvement of M.Lynch is scheduled to be implemented by the Ministry of Public Works financed by the World Bank within 5 years.

(FY 1995 Overseas Survey)

The number of items to improve or arrange under this project seem to be doubled because of increasing demands.

(FY1996 Domestic Survey)

Although in Sep. 1993 the request was submitted to JICA for the dispatch of experts in order to review M/P, F/S and the content of construction works and to formulate an implementing plan, it was turned down. The improvement of M.Lynch has not been commenced.

(FY 1997 Overseas Survey)

Priority projects will be selected through examining the annual investment budget of Asuncion City, Ministry of Public Works and AGA under S/W study in Dec.1997.

(FY 1997 Overseas Survey)

Budget of municipality is to be allocated for the project after the completion of Aftercare study. In case that the project require greater amount of cost as a result of the study, foreign fund will be requested.

(FY 1998 Domestic Survey)

The Mayor desires to develop the East-West Corridor and to extend the Av. Espana. However, these have not been implemented since the political regime has been changed and the explanation for the residents were not enough.

# STUDY SUMMARY SHEET

(M/P)

CSA PRY/S 102/89

<b>1. COUNTRY</b>	Paraguay	
<b>2. NAME OF STUDY</b>	Water Pollution Control Plan for the Lake Ypacarai and its Basin	
<b>3. SECTOR</b>	Administration / Environmental Problems	
<b>4. TYPE OF STUDY</b>	M/P	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Technical Planning Secretariat Environmental Study Dept.
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Kokusai Kogyo Co., Ltd. CTI Engineering Co., Ltd.	
<b>7. STUDY PERIOD</b>	Dec.1987 ~ Aug.1989 20month(s) ~	
<b>8. SITE OR AREA</b>	Lake Ypacarai and its basin	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>First Priority</p> <p>1) Construction of waste water treatment systems (for industrial plants and tourist installations)</p> <p>2) Appropriate treatment of sludge and garbage in river beds and lake area</p> <p>3) Construction of lakeshore vegetation</p> <p>Whithin 2-3 years</p> <p>4) Construction of sludge treatment plant</p> <p>5) Rehbabilitaion of existing sewage treatment plants</p> <p>6) Forest conservation and management</p> <p>7) Control of erosion from roads, quarries and river banks</p> <p>Within 5-10 years</p> <p>8) Land use zoning, 9) Construction of sewage treatment plants</p> <p>10) Afforestation, 11) Soil erosion control in cultivated land</p> <p>After detailed F/S</p> <p>12) Raw sewage collection system by vacuum trucks</p> <p>13) Construction of flood control channel (Yuguyry River)</p> <p>14) Construction of contact oxidation ditch (urban rivers)</p> <p>15) Installation of a sluice at the mouth of the Salado River</p>		

イバカライ湖流域水質汚濁対策計画

<b>PRESENT STATUS</b>	In Progress or In Use
	Delayed
	Discontinued

**Description :**

The first study was utilized as a base for a new F/S on analysis of water pollution and its decrease. It was also utilized for elaboration of land readjustment plan at central provinces and waste disposal plan of Asuncion City and peripheral areas.

**Dispatch of Experts:**

An expert of solid wastes management was dispatched by JICA to the City of Asuncion.

Although the dispatch of an environment policy expert was requested every year, the Japanese government was unable to respond favorably due to the shortage of suitable manpower.

In April 1995, an expert of water quality analysis was dispatched from a private firm to SENSEA for two years.

**Cooperation with U.S.A.:**

The Study results will be utilized as the basic data for F/S, which will be financed by TDA-USA and implemented under the Ministry of Natural Resources and Environment for six months commencing in April 1994.

The Ministry of Natural Resources and Environment has been observing and examining how the water quality in the Lake Ypacarai and the surrounding area has been improved. This water quality improvement program, for which the results of the JICA study are utilized, has been implemented by two American consulting firms with USAID fund.

In case an American consultant is appointed, not only will the financial assistance be provided but also the study on various problems concerning this Lake will be conducted.

(FY 1995 Overseas Survey)

**Effect:**

To secure water resources.

To upgrade the value of target area as the tourist and recreation area.

Reinforcement of pollution control at Lake Ypacarai.

**Others:**

The Government of Paraguay was determined to follow the recommendations proposed by this M/P, which resulted in the establishment of the Basin Management Authority.

(FY 1993 Overseas Survey)

The Government of Paraguay requests the Japanese government for the participation of more local staff in these survey works in future.

(FY 1995 Domestic Survey)

The Technical Planning Secretariat moved the equipment in a laboratory to the Ministry of Natural Resources and Environment.

(FY 1996 Domestic Survey)

In case the improvement of sewerage is undertaken, it is necessary to determine in advance where sewage is to be released and how it would be treated.



# STUDY SUMMARY SHEET

(F/S)

CSA PRY/A 303/89

<b>1. COUNTRY</b>	Paraguay		
<b>2. NAME OF STUDY</b>	Integrated Rural Infrastructure Improvement Project in La Colmena		
<b>3. SECTOR</b>	Agriculture / (Agriculture in) General		
<b>4. TYPE OF STUDY</b>	F/S		
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Ministry of Agriculture and Livestock, Technical Cabinet.	
	<b>PRESENT COUNTERPART AGENCY</b>		
<b>6. CONSULTANT(S)</b>	Naigai Engineering Co., Ltd.		
<b>7. STUDY PERIOD</b>	Jul.1988 ~ Jun.1989 11month(s) ~		
<b>8. SITE OR AREA</b>	Paraguari, La Colmena District		
<b>9. MAJOR PROPOSED PROJECT(S)</b>			
Project	Overall Components	First Stage	Future Stage
Road Improvement	97.4km	69.8km	27.6km
Irrigation Facilities	900ha	400ha	500ha
Drainage Improvement	10.0km	4.0km	6.0km
Rural Water Supply	L=70,050m	L=56,650	L=13,400m
Electricity	L=48.8km	L=48.8km	-
Medical Care Facilities	1 set	1 set	-
Telecommunication System	L=24.3km	L=14.0km	L=10.3km
Educational Facilities	2 schools	2 schools	6 ground
O & M Center	1 place	1 place	-
Sub-Center	10 Places	4 Places	6 Places
Rural Park	10 Places	4 Places	6 Places
Sewage & Garbage Treatment	6 Places	1 Place	5 Places
Agricultural Processing Facilities	Facility	One of facility	Facility
Marketing Facilities	Facilities	Collecting	Grading
Demonstration Farm	5,000 sq.m	5,000 sq.m	-
O & M Machines	1 unit	1 unit	-

ラ・コルメナ地区農村総合整備計画

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

Out of the components formulated in the F/S study, following priority projects were implemented as the grant aid projects of the Japanese Government.

## Subsequent Studies:

Aug.1989~Feb.1990 B/D (Naigai Engineering Co.,Ltd)

Aug.~Dec.1990 D/D

## Finance:

30 Jul.1990 E/N 526 mil.Yen

(Model Project of Integrated Rural Development in La Colmena-1/2)\*

26 Jul.1991 E/N 621 mil.Yen

(Model Project of Integrated Rural Development in La Colmena-2/2)\*

## \*Contents of Project

1.Road Improvement;Improvement:9 routes L=21.6km

Bridge:1 Place, Culvert:13 Places

2.Irrigation Facilities;Intake Facilities:2 Places

Regulating Pond:2 Places, Conducting Pipeline:L= 5.1km

Distribution Pipeline:L=23.2km

3.Rural Water Supply Facilities;Well:1 Place

Filtration Plant:1 Place, Distribution Tank:1 Place

Distribution Pipeline:L=36.6km

4.O&M Facilities;O&M Center:1 Place A=280sq.m

O&M Machines:Grader 1 unit, Pickup 1 unit, Bike 1 unit

## Construction:

Feb.1991 Phase1 started

Sep.1991 Phase2 started

Feb.1992 Completion of the phase 1 works

Mar.1992 Hand Over

May.1992 Completion of the phase 2 works

Jun.1992 Hand Over

May.1993 Defects Inspection

Total expenses was 1,147 plus 2,294 billion G, which is equivalent to approximately 1,376 billion Yen.

## Others:

(FY 1999 Overseas Survey)

Electric facilities have been remarkably developed in the study area under the rural electrification plan implemented by the government. Most of the urban and rural areas in La Colmena have been electicized. Telecommunication systems with micro wave have been installed since 1993. Road development project (paved road of Paraguari - Villarrica and La Colena secondary road) is under implementation with ODA loan (10 Aug.1998 L/A).

# STUDY SUMMARY SHEET

## (M/P)

CSA PRY/S 103/91

<b>1. COUNTRY</b>	Paraguay	
<b>2. NAME OF STUDY</b>	National Transport Master Plan	
<b>3. SECTOR</b>	Transportation / (Transportation in) General	
<b>4. TYPE OF STUDY</b>	M/P	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Ministry of Public Works and Communication
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Yachiyo Engineering Co., Ltd. Mitsubishi Research Institute Inc. The Overseas Coastal Area Development Institute (OCDI)	
<b>7. STUDY PERIOD</b>	Mar.1990 ~ Jan.1992 22month(s) ~	
<b>8. SITE OR AREA</b>	Whole Paraguay and its export corridor	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>1) Highway Transport: R-1 Trunk Road Development; Primary highways Development; Secondary Highways Development. R-2 Rural Road Development. R-3 Amistad Bridge Expansion. R-4 San Tome - San Borja Bridge Construction.</p> <p>2) Water Transport: N-1 Domestic Cereals Export terminals. N-2 Cereals Export Terminals at Free Zones. N-3 Main Foreign Trade Port at Villeta. N-4 Regional Freight Terminals. N-5 Petroleum Distribution Terminals. N-6 Paraguay River Improvement and Maintenance. N-7 Parana River Improvement and Maintenance. N-8 Fleet Enhancement.</p> <p>3) Rail Transport: F-1 Asuncion Suburban Area Rail Improve. F-2 Gral. Artigas - Encarnacion Rail Improve. F-3 Villarrica - Gral.Artigas Rail Improve.F-4 Ypacarai - Villarrica Rail Improv. F-5 Encarnacion - Sao Borja 4 Rail System Development. F-6 Cereals Export Railway Terminals. F-7 Enhancement of Rolling Stocks. F-8 Nueva Palmira Port Branch Construction.</p> <p>4) Air Transport: A-1 International Airports Facilities Development. A-2 Local Airports Facilities Development. A-3 Air Route Facilities Development. A-4 GSE Enhancement.</p>		

<b>PRESENT STATUS</b>	In Progress or In Use
	Delayed
	Discontinued

**Description :**

## (1) Road Network Improvement

The short-term (-1995), mid-term (-2000) and long-term (-2010) road improvement plan were approved by the Cabinet. Various financial assistances are requested to implement the plans. eg.) To improve the National Highway No.3 Limpio-San Estanislao (127km), the Government requested the World Bank for the financial assistance in October, 1991.

## 1. Arterial Road Development

(FY 1997 Domestic Survey)

Subsequent Study:

Feb.1996 - Mar.1997 JICA F/S (Arterial Road Development Project)

This aims to formulate a project to improve the secondary national roads, Marumena-Villirorica and Paraguari-Villarica.

Finance:

10 Aug.1998 L/A 19,428 billion yen (Road Development Project (II)) (a part of the loan (approx. 5 billion yen) is for this project)

\*Contents of project

Development of arterial Road (approx. 25km including Praguari-Villarica)

2.Improvement of National Highways No.2,3,5 ,6and 7

(FY 1996 Domestic Survey))(FY 2000 Domestic Survey)

Subsequent Study: Mar.1999 - Mar.2000 JICA F/S

Finance: BID, FONILATA

Construction:

(FY 1998 Domestic Survey)

Completed

\*Contents/Road improvement with widening the road (4 lanes) and overpass (FY 1998 Domestic Survey).

(2) Reinforcement of the Transport Information Sector

(FY 1998 Domestic Survey)

The Japanese expert to the Ministry of Public Works and Communications (~Dec.1998) was dispatched.

3. Situation of development/rehabilitation of the national routes

(FY 1998 Overseas Survey)

1) Rehabilitation and paving of Route 1 (Paragurari - Yaguaron -Ita): 1997.1 ~ 2000.1

2) Repairing and paving of Paraguari - San Juan Bautista: 1993 ~ 1995 (completed)

3) Repairing and paving of San Juan Bautista - Encarnacion: 2000 ~ 2003

4) Rehabilitation of Coronel Oviedo - Caaguazu y Eusebio - Itacurubi: 1993 ~ 1995 (completed)

5) Rehabilitation and paving of Route 3 (Limpio - Emboscada): 1998 ~ 2000

6) Rehabilitation and paving of Route 3 (Emboscada - Santani): 1998 ~ 2001

7) Rehabilitation and paving of Route 3 (Tacuara - Santa Rosa): 1992 ~ 1995 (completed)

8) Rehabilitation and paving of Route 3 (Santa Rosa - Yby Yau): 1992 ~ 1995 (completed)

9) Rehabilitation and paving of Route 4 (14km - 29 km): 1995 ~ 1996 (completed)

10) Rehabilitation and paving of Route 4 (29 km- Pilar): 1995 ~ 1998

11) Rehabilitation and paving of Route 5 (Cuero Fresco - Concepcion): 1995 ~ 1999

12) Rehabilitation and paving of Concepcion - Pozo Colorado: 1997 ~ 2000

13) Repairing and paving of Bella Vista - 149 km (Route 6): 2000 ~ 2003

14) Rehabilitation of Coronel Oviedo - Caaguazu: 1993 ~ 1996 (completed)

15) Rehabilitation of Route 7 (Itaipu 323km - 183 km): 1998 ~ 25 years

16) Rehabilitation of Numi - Caazapa: 1992 ~ 1994 (completed)

17) Rehabilitation of Caazapa - Cornel Bogado: 2000 ~ 2003

18) Repairing and paving of the term 1 of Transchaco: 2000 ~ 2003

19) Rehabilitation of Puente Rio Negro - Pozo Colorado: 1995 ~ 1997 (completed)

20) Rehabilitation of Pozo Colorado - Puente Rio Verde: 1995 ~ 1997 (completed)

21) Rehabilitation and paving of Mcal Estigarribia - Sgto. Rodriguez : 1999 ~ 2003

22) Rehabilitation and paving of Route 10 (Santani - Pto. Rosario): 1999 ~ 2002

23) Rehabilitation and paving of Route 10 (Tacuara - Saltos del Guaira): not yet decided

24) Rehabilitation and paving of Route 12 (Chacol - Gral Bruguez): not yet decided

(2) Strengthening of Transportation & Information Division

(FY 1998 Overseas Survey)

Dispatch of Japanese experts to Ministry of Public Works and Communication (~ Dec. 1998).

(3) Railway Improvement

(FY 1995 Domestic Survey)

The implementation with BOT scheme has been under consideration.

(FY 1998 Domestic Survey)

There is still desire to implement the project with BOT scheme.

(FY 2000 Domestic Survey)

As the demands for rail transportation in Paraguay has been decreasing year by year and the facilities have become too old for use, only the service in the section Asuncion- Ypacarai (once a week) and the section Encarnacion-Pakuwa(cargo) are under operation. Moreover, to replace the rail between Gral althigus and Encarnacion was compensated for the completion of the Yashiren Dam, however the replacement was not started because the section has not been submerged yet and the service has been already stopped.

(4) Water Transport Development

(FY 2000 Domestic Survey)

The increase of the yield of soybeans rapidly made the transport volume large. In this fiscal year, the improvement of Concepcion port will be completed and the improvement plan concerning to the Pilar port will be decided.

Detail:

総合交通計画

# STUDY SUMMARY SHEET

## (M/P+F/S)

CSA PRY/S 216/93

<b>1. COUNTRY</b>	Paraguay	
<b>2. NAME OF STUDY</b>	The Establishment of Educational Television Broadcasting Network	
<b>3. SECTOR</b>	Communications & Broadcasting / Broadcasting	
<b>4. TYPE OF STUDY</b>	M/P+F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Ministry of Education & Culture National Administration of Telecommunication (ANTELCO)
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	NHK Integrated Technology Yachiyo Engineering Co., Ltd.	
<b>7. STUDY PERIOD</b>	Nov.1992 ~ Aug.1993 9month(s) ~	
<b>8. SITE OR AREA</b>	Whole areas of the country	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>Work 1 Construction of a television transmitting station in Asuncion, which covers 40% of Paraguayan population, and supplementation of existing studio facilities(US\$4.7 million)</p> <p>Work 2 Construction of the ETV Center in Asuncion and construction of stations in three major regional cities, which increases total population coverage to 62%(US\$19.3 million)</p> <p>Work 3 Construction of remaining nine regional transmitters of 13 1st-plan station, which increases total population coverage to 84%(US\$10.8 million)</p> <p>Work 4 Construction of ten 2nd-plan regional stations, which increases total population coverage to 94%, and construction of studios in major regional stations(US\$10.6 million)</p>		

教育テレビ放送網整備計画調査

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

## Background:

The Minister of Education approved to request the cooperation for this Project to the Government of Japan on 20th June, 1994.

And the officers in charge of the Ministry of Education explained the necessity and the Priority of this project to the Parliament and asked to allocate national budget to materialize a part of the Project. Simultaneously, negotiations with the investors are also commenced.

## Finance:

A large initial investment will be required to implement the Master Plan to create an educational television broadcast network. However, in light of the current development budget of the Government and the expansion of the ANTELCO's investment, it will be difficult to obtain such a large amount for capital investment. Particularly, the implementation of the Priority Project should be financed by grants or very soft loans, so as to ease the repayment burden as much as possible.

## Situation:

(FY 1995 Overseas Survey)

The Priority Project is most essential in establishing the educational television broadcasting service in Paraguay. In particular, the implementation of Work 1 to construct transmitting facilities in Asuncion has an important meaning in securing the TV channel, which the Paraguayan Government has retained for years for educational television in the capital city. With the Asuncion station put into service, some 40% of the entire population of the country will be able to receive education through the television service. Consequently, Work 1 of the Priority Project should be taken up for implementation at an earliest possible date.

(FY 1997 Overseas Survey)

Request for a grant aid assistance was not submitted to Japanese Government in 1994 since Ministry of Technical Planning did not select this project as a project requesting for grant aid assistance.

(FY 2000 Overseas Survey)

There has been no progress for materialization due to various reasons of Paraguay Government.

# STUDY SUMMARY SHEET

## (M/P)

CSA PRY/A 103/94

<b>1. COUNTRY</b>	Paraguay	
<b>2. NAME OF STUDY</b>	Integrated Agricultural and Livestock Development Project at Lower Chaco	
<b>3. SECTOR</b>	Agriculture / (Agriculture in) General	
<b>4. TYPE OF STUDY</b>	M/P	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Ministry of Agriculture and Livestock, Direction of General Planning.
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Japan Agricultural Land Development Agency	
<b>7. STUDY PERIOD</b>	Oct.1991 ~ Mar.1994 29month(s) ~	
<b>8. SITE OR AREA</b>	Presidente Hayes Department (with an area of 73,000sq.km, location Lat.22'10" to 25'20"S, Long.57'10" to 60'45"W) at the southern end of Chaco District	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>1)Support the research work of agricultural and livestock farming industry: Experiment station of livestock farming 1, Stock farm 1, Research center 1, Diffusing station 4, Cooperation society of agricultural equipment 1, Seed/Seedling supplying facility 1, etc.</p> <p>2)Infrastructure improvement for agricultural and livestock farming society: Improvement of trunk roads (701km), Preparation of farm (177,00ha) and Meadow (479,000ha), Preparation of irrigation waterway and drainage (43,000ha) and maintenance of the farmland (17,000ha)</p> <p>3)Facilities of social infrastructure: 7 clinics, 37 educational facilities, 4 sets of electrification, 9 sets of living water supplying facilities and 3,780 residential housings</p> <p>4)Facilities of distribution and/or processing: 3 cotton gins, 4 citrus selection facilities, 6 factories for dairy products, 5 meat processing and 1 cooperative forwarding facility for fruits and vegetables</p>		

<b>PRESENT STATUS</b>	In Progress or In Use
	Delayed
	Discontinued

**Description :**

## Subsequent Study:

At present, 1.5 years after the completion of this survey works, it seems to be on the stage of that an official request for implementation of the Feasibility Study in connection with the integrated agricultural and livestock farming development plan for Pozo Colorado District and Campo Azeval District is going to be submitted to the Government of Japan.

## (FY 1996 Domestic Survey)

No request has been submitted by Ministry of Agriculture and Livestock.

## (FY 1997 Domestic Survey)

F/S for integrated agricultural and livestock farming development plan for Pozo Colorado District and Campo Azeval District is requested to Paraguayan Government.

Now, it is under examination of General Directorate of Planning.

## (FY 1998 Domestic Survey)

The request for F/S has not been submitted.

## Situation:

## (FY 1995 Overseas Survey)

In order to obtain various data, a dam has been constructed and reserved water during rainy season.

The pilot farm has been irrigated by the water from the dam to cultivate winter wheat and other crops.

This test was planned to complete on 1995, however, due to environmental and ecological cautions, it will be extended until 1996. It is planned to continue various experimental works including the research for the other crops under this Project.

## (FY 1996 Overseas Survey)

Information obtained by this project (soil, water, flora, infrastructure, population, development strategy, etc) is utilized for policy making and formulation of projects by Govt and international organizations. Materialization of this project has not realised yet. Govt, cooperating with Ministry of Agriculture and Livestock, emphasizes small scale projects, for example apiculture, horticulture, milk production to generate job opportunity and income.

## (FY 1997 Domestic Survey)

This project is considered as a Paraguayan version of Serrado Development in Brazil.

## (FY 1997 Overseas Survey)

The results of the study have been incorporated into Rural Agricultural and Human Resources Development Strategy(10 years).

## (FY 1999 Overseas Survey)

Data and information acquired in this Study have been utilized in both public and private sectors for the policy decision and the formulation of bajo chaco development plan.



## STUDY SUMMARY SHEET (M/P+F/S)

CSA PRY/S 203/94

<b>1. COUNTRY</b>	Paraguay	
<b>2. NAME OF STUDY</b>	Solid Waste Management for Metropolitan Area of Asuncion	
<b>3. SECTOR</b>	Public Utilities / Urban Sanitation	
<b>4. TYPE OF STUDY</b>	M/P+F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Ministry of Health and Welfare, Union of Autonomy of the Metropolitan Area (AMUAM)
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Kokusai Kogyo Co., Ltd.	
<b>7. STUDY PERIOD</b>	Jun.1993 ~ Aug.1994 14month(s) ~	
<b>8. SITE OR AREA</b>	Asuncion Metropolitan Zone:Waste Collection Chaco-i Proposed Site :Final Disposal Av. Madam Linch :Transit Base	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>1)Improvement of waste collection (at 14 autonomies outside of Asuncion Metropolis).</p> <p>2)Improvement of waste collection (at the city of Asuncion).</p> <p>3)Construction of the transit base at Av. Madam Linch.</p> <p>4)Construction of the disposal for wider area.</p>		

アスンシオン首都圏廃棄物処理総合計画調査

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed Partially Completed Implementing Processing	Delayed or Suspended   Discontinued or Cancelled
<b>Description :</b>		
<p>Subsequent Study: (FY 1997 Domestic Survey, Overseas Survey) Nov.1997~Jan.1998 B/D Consulting Firm/Kokusai Kougyo After B/D is approved, D/D is to be started on April 1998. (FY 1998 Domestic Survey) Provision of machinery was completed by March 1999.</p> <p>Finance: (FY 1996 Domestic Survey) Among the proposed projects, the request is submitted for 800 mil.Yen grant aid assistance to procure waste collection equipment, which is considered the most urgent. (FY 1998 Domestic Survey) Machinery Development Project for Solid Waste Management for Metropolitan Area of Asuncion. *Contents: Provision of machinery for waste collection and reclamation for Asuncion. 22 April 1998 E/N 799mil.yen</p> <p>Background: Authorities concerned in Paraguay (Ministry of Health and Welfare, SENASA and 15 autonomies of the city of Asuncion and the surrounding area) eagerly wish to implement this project.</p> <p>(FY 1995 Overseas Survey) The implementing schedule of this project is now drawing. SENASA will settle the regulations with regard to this issue, and AMUAM will establish the Urban Cleaning Office. Additionally, SENASA will join with a consultation organization of the Presidential Office to research the socio-economical impacts of this Project, and will construct a disposal treatment facility for wider area at Chaco-i. SENASA is going to publish a manual book for reduction and recycling of the disposals and the wasted materials from families, and distribute the manual book for each families in the municipality. And also to research the components of disposal in order to apply the results to this project and to introduce to the other cities and districts of the country. Above actions are considered as for a part of the National Plan. At present, it is still on the promoting stage such as designing, financing and providing the tender documents.</p> <p>(FY 1996 Domestic Survey) Because the Japanese Government considers to end the provision of grand aid assistance for Paraguay, the early implementation of this project is desired.</p> <p>(FY 1998 Domestic Survey) The metropolitan area consisted of 15 municipalities including Asuncion city when this study was conducted. After reorganizing the administrative district, the present metropolitan area consists of 23 municipalities including Asuncion city. It was proposed that a new disposal treatment facility would be constructed in Chaco-i. However, the substitute site is presently under selection since the policy has changed.</p> <p>(FY 1999 Overseas Survey) There has been little progress in finding the new final disposal site. The systems have been utilized in Asuncion, San Lorenzo, Capiata. Luque will utilize it soon. In Asuncion, the agency is collecting garbage on 2 - 3 shift basis. Therefore, the rate of collection is kept high. The Cateura disposal site has been remarkably improved.</p>		

# STUDY SUMMARY SHEET

## (M/P)

CSA PRY/A 107/96

<b>1. COUNTRY</b>	Paraguay	
<b>2. NAME OF STUDY</b>	Cooperation Program for the Small Scale Agriculture	
<b>3. SECTOR</b>	Agriculture / (Agriculture in) General	
<b>4. TYPE OF STUDY</b>	M/P	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Ministry of Agriculture and Livestock, Direction of General Planning.
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Japan Agricultural Land Development Agency	
<b>7. STUDY PERIOD</b>	Jan.1996 ~ Mar.1997 14month(s) ~	
<b>8. SITE OR AREA</b>	The target area covers 14 departments with an area of 16 million ha in the eastern part of Paraguay	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>Model Area Program</p> <ol style="list-style-type: none"> <li>1.Project for the efficient use of farmland</li> <li>2.Project for the enhancement of settlement land</li> <li>3.Project for the enhancement of irrigation facilities in dry fields</li> <li>4.Project for the demonstration of farmland conservation</li> <li>5.Project for the development of environmentally accountable agriculture</li> <li>6.Project for soil improvement and the promotion of cotton crops</li> <li>7.Project for the development of fruit producing estates</li> <li>8.Project for the promotion of suburban dairy farming</li> <li>9.Project for the improvement of adult education for farmers, etc.</li> <li>10.Project for the promotion of sericulture</li> <li>11.Project for the promotion of mixed agriculture and livestock farming</li> <li>12.Project for the development of model rural area for paddy field development</li> </ol>		

小規模農業強化計画

<b>PRESENT STATUS</b>	In Progress or In Use
	Delayed
	Discontinued

**Description :**

## Situation:

(FY2001 Overseas Survey)

The main objective of the project is to enhance the domestic agriculture through technological and financial aids to small-scale farmers in the Eastern Area. The project also includes introduction of training farms, construction of water supply system, and improvement of rural roads.

## Finance:

(FY 1998 Domestic Survey) (FY 1998 Overseas Survey)

10 Aug.1998 L/A (Agricultural Reinforcement Project II) 15,525 million yen

## \*Contents:

- (1) Public works: development of infrastructure such as rural and irrigation and drinking water.
- (2) Development Loan through Banking System such as BNF, CAH, FDC (two step loan).

## Construction:

(FY 2001 Domestic Survey)

Imp. Period: from 2001 to 2004 (until Feb.2005 according to the L/A)

## Contents:

The Department of Promotion selects "Finca Escuela" and implements the simple F/S regarding the management to be exhibited. The necessary infrastructure and seeds are to be provided, and then the cultivation and management are to be exhibited. FY2001(2 Departments, 38 places), FY2002(6 Departments, 47 places), FY2003(6 Departments, 39 places), FY2004(All Departments, 39 places), FY2005(All Departments, 50 places)

Road : The manual is under preparation. The construction will be completed with total expansion of 50 km in Feb.2002.

City Water : The manual is under preparation. The construction will be completed in Feb.2002. The World Bank has been implementing the similar Rural Water Supply Project and ironing out the proportion of residence burden.

## Development Loan through Banking System such as BNF:

(FY 2001 Domestic Survey)

BNF: After the first disbursement, they have been disbursed satisfactory with the achievement of 317 times till June.

CAH: The first disbursement was made in Sep.2001. By the criterion of owned land area (about 20 ha) and income (37 thousands US\$), the subjects to financing were selected.

FDC: The manual was prepared by the draft level and is to be completed until mid-Feb.2002. Although the funds are from IFAD, there is much balance to be financed. The advisor of Yen loan has been directing FDC to increase the amount of loan.

(FY 2001 Overseas Survey)

BNF: Started to provide the loan since FY 2000. The amount of the loan provided to farm producers until now occupies 13.1% of the total allocation.

CAH: Procuring financial resources for the first disbursement which will start from Nov. 2000.

FDC: Specialized for loans to farm producers organizations. Currently DINCAP technical team is reviewing the operation manual.

## Background:

(FY 1997 Domestic Survey)

12 projects were selected as the most favorable projects in the M/P.

The government of Paraguay (The Department of General Planning in the Ministry of Agriculture and Livestock) is planning to request two projects among the most favorable projects to Japanese government as a technical cooperation project. Those projects are the Projects for the enhancement of irrigation facilities in dry fields and the Project for the development of environmentally accountable agriculture.

On the other hand, in January 1997, the government of Paraguay submitted the request letter of the second phase of agricultural reinforcement project to the Japanese government as a loan.

This loan funds for important and urgent fields(farm management, distribution, agricultural support system, environment and WID, etc) to a financial institute of the Ministry of agriculture and livestock. The amount of loan is estimated to be 97,540,000 US\$ which corresponds to about 11% of total costs of all the proposed projects of M/P in the cash basis.

(FY 1998 Domestic Survey) (FY 1998 Overseas Survey)

Development studies (F/S) related to the proposed projects ("Irrigation and Soil Conservation Project in Coronel Oviedo" and "Development Project in Ybycui National Park") were examined.

Considering the priority, the former project was requested in 1998.

Project-type technical cooperation is also being requested.

(FY 1999 Overseas Survey)

MAG submitted requests for Japan's technical assistance in 1997 and 1998 for the implementation of 1)Irrigation infrastructure improvement and soil conservation project in Cnel Oveido District; and 2)Project for strengthening the Ybycui National Park and its surrounding areas. Although these projects have not been concretized, they are to be requested occasionally as the priority projects.

(FY 2001 Domestic Survey)

The following projects which have been requested to Japan in 1997 and 1998 were not adopted. The assistance by the Japanese government are under discussion because the possibility to be adopted is low: the Irrigation Infrastructure Improvement, the Soil Conservation Project in Coronel Oviedo District, the Reinforcement Project in Ybycui National Park and around it.

# STUDY SUMMARY SHEET

(F/S)

CSA PRY/S 314/96

<b>1. COUNTRY</b>	Paraguay	
<b>2. NAME OF STUDY</b>	Arterial Road Development Project	
<b>3. SECTOR</b>	Transportation / Road	
<b>4. TYPE OF STUDY</b>	F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Ministry of Public Works and Communications
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Central Consultant, Inc. Yachiyo Engineering Co., Ltd.	
<b>7. STUDY PERIOD</b>	Feb.1996 ~ Mar.1997 13month(s) ~	
<b>8. SITE OR AREA</b>	Central region of East Paraguay	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>The main contents of the project are construction works of total 121km road consist of 83km between Paraguari and Vijari and 38.1km branch road reaching to La Cormena, and environmental protection to the road construction.</p> <p>(Imp. Period) D/D 1997~1998 construction 1999~2005</p>		

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

## Subsequent study:

(FY 1998 Overseas Survey)

March ~ Dec. 1999 D/D

## Finance:

(FY 1998 Domestic Survey) (FY 1998 Overseas Survey)

10 Aug. 1998 L/A 19,428 million yen "Road Development Project (II)"

## \*Project contents:

(1) Asphalt paving: i)Paraguari - Tebicuari, ii)Tebicuary - Villarica, iii)La Colmena - Tebicuary;

(2) Rehabilitation and re-paving: i)Yby - Yau - P.J.Caballero, ii)Bella Vista - Km 148 (Route 6), iii)S. J. Bautista - Encarnacion (including the enlarge of the bridge), iv)Cnel. Oviendo - Santani, v) First term of the route; and

(3) Enlarge of the width of the bridge: i)Paraguari - S. J. Bautista, ii)Carapegua - Acahay - La Colmena.

## Construction:

(FY 1999 Domestic Survey)(FY 1999 Overseas Survey)

Dec.1999 ~ 2003.

(FY 2002 Domestic Survey)

iv)Cnel. Oviendo - Santani Nov. 2001~May 2004

v) First term of the route Nov. 2001~Jan. 2004

## Japanese technical cooperation:

(FY 1998 Overseas Survey)

Feb. 1996 ~ Nov. 1998 Training in Japan (4 trainees)

Jan. 1996 ~ Jan. 1998 Dispatch of a Japanese expert (road consultant)

(ii) Tebicuary - Villarica: Completed in March 2003.

(iii) La Colmena - Tebicuary: Completed in March 2003.

## (2) Rehabilitation and re-paving:

(i) Yby-Yau - P.J.Caballero: Completion scheduled in September 2004.

(ii) Bella Vista - (Route 6): Completion scheduled in March 2005.

(iii) S. J. Bautista - Encarnacion (including the enlarge of the bridge): Completion scheduled in March 2006

(iv) Cnel. Oviendo - Santani: Completed in January 2003.

(v) First term of the route (across Chaco): Completed in March 2003.

## (3) Enlarge of the width of the bridge:

(i) Paraguari - S. J. Bautista: Completion scheduled in March 2006

(ii) Carapegua - Acahay - La Colmena: Completion scheduled in March 2006.

## Background:

(FY 1997 Domestic Survey)

The project proposed by this survey was expected to be implemented by the onerous financial cooperation of Japan together with similar other works.

Although a little delay has been observed from the initial schedule, the Japanese Government has pledge on October 1997 a yen credit of approximately 20 billion yen for the total amount of approximately 25 billion yen for this work.

The L/A was signed on Aug.1998 and is scheduled that the implementation design started on Jan. 2000, and the Tender of the work opened on Sept. 2000 (first group). The duration of construction is planned for 3 years.

# STUDY SUMMARY SHEET

## (M/P)

CSA PRY/S 113/99

<b>1. COUNTRY</b>	Paraguay	
<b>2. NAME OF STUDY</b>	The Aftercare Study on Urban Transportation Planning in Asuncion Metropolitan Area	
<b>3. SECTOR</b>	Transportation / Urban Transportation	
<b>4. TYPE OF STUDY</b>	M/P	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	The Municipality of Asuncion
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Yachiyo Engineering Co., Ltd. Central Consultant, Inc.	
<b>7. STUDY PERIOD</b>	Jul.1998 ~ Nov.1999 16month(s) ~	
<b>8. SITE OR AREA</b>	Asuncion Metropolitan Area in the Republic of Paraguay	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>1) Trunk Bus Project on E.Ayala Avenue</p> <ul style="list-style-type: none"> <li>- Widening of Av. E. Ayala and Mcal. Estigarribia into six-lane roads</li> <li>- Provision of executive trunk bus lanes</li> <li>- Constructions of 4 viaducts at intersections with major trunk roads</li> <li>- Improvements of road drainage facilities</li> </ul> <p>2) Other Road Improvement Projects</p> <ul style="list-style-type: none"> <li>- Widening of 4 main trunk roads</li> <li>- Improvements of intersections on trunk roads that currently experience bottlenecks</li> <li>- Improvements of road drainage facilities</li> <li>- Pavement improvements</li> </ul> <p>3) Traffic Management Projects</p> <ul style="list-style-type: none"> <li>- Problems with the current traffic control system include visibility and recognition of traffic signals and a lack of good traffic data. The Study will propose improvement measures for traffic signal control using the central control scheme, taking into account current problems, future traffic demand, and the new trunk bus project.</li> </ul>		

アスンシオン首都圏都市交通整備計画アフターケア調査

<b>PRESENT STATUS</b>	In Progress or In Use
	Delayed
	Discontinued

**Description :**

(FY 2000 Domestic Survey)

The municipality of Asuncion has so far no intention of applying for a new loan and has not approached the Government of Japan.

The CETA office still exists within the municipality, and municipal employees(4 former counterpart members and three new persons) work for transportation issues.

A public transport bill to empower transport operators is under discussion in the Diet, and the proposed projects will be discussed further in detail once the bill is passed.

(FY 2001 Domestic Survey)

The government of Paraguay enacted a new law in 2000 for the preparation and implementation of the proposed project in F/S.

The municipality of Asuncion and mayors of the vicinal municipalities established SETAMA (Secretaria de Transport del Metropolitana de Asuncion) for fund procurement, land utilization, and interest adjustment among concerned bus enterprises.

The government is seeking overseas financial aid because of its financial deficit.

The activities of SETAMA have been stopped for a few months due to the coming mayoral election on Nov. 18, 2001.

(FY 2001 Overseas Survey)

Establishment of the National Transport System and a new management organization:

- DINATRAN, a nation-wide management organization, and SETAMA, a local-level management organization in Asuncion, were established on Dec. 29, 2000. SETAMA formulated a M/P for Asuncion metropolitan area, however, the implementation of the plan has been suspended with many issues to be solved.

Because there are no concrete fund procurement plans to start activities of DINATRAN (budgeted from the Diet) and SETAMA (budgeted from the municipal council), an application for Japan's Technical Cooperation and Yen Loan for the implementation of the M/P is being prepared.

(FY 2002 Domestic Survey)

The delay of fund procurement is contributed from the following factors:

1. Lack of budget within govt. And borrowing from WB suspended (nearly in default).

2. Political instability and preliminary election, expected Apr. 2003, prevents govt. from concentrating on the primary duty.

3. Due to World recession of the World economy and peripheral countries (i.e. Argentine and Brazil), foreign currency inflow remains insufficient. The repair work on Palma st. in the Center of Asuncion City has been commenced, and width of roads has expanded.

(FY 2003 Overseas Survey)

The following projects were implemented on its own funds.

1. Of the four yards on the Mariscal Lopez scheduled to be constructed, three yards were constructed.

2. A bypass was constructed between Espana and Mariscal Lopez through a railroad

3. While the road width of the section between the Peru Avenue on the Artigas Street and Espana has been expanded, the section between the Peru Avenue and General Santos remains unfinished (approximately 750 m).

4. The construction to expand the both sides of the Palma Avenue had been expected in relation to the conversion plan of the downtown to a pedestrian avenue and partial expansion of the northern sidewalk of the Estrella Avenue were implemented.

(FY 2004 Domestic Survey)

- Construction of roads (able to enter directly to Centro from Altigas via Paraguayo Independiente)

- Increase in number of people using public transportation due to economic deterioration.

- Traffic congestion by the bus has reduced due to a bankruptcy of several Bus companies, which entity with stable management survived.

(FY 2004 Overseas Survey)

Tender was made for expansion and re-pavement of 1km long section in Eusebio Ayala street. This is the section between Choferrel de Chaco and San Martin, where construction is in progress.

This street is the major road from Eastern arterial road to the centre of capital. This road connects major cities in metropolitan area, which connects to Route 1 and Route 2. 21 thousand motor vehicles transits Eusebio Ayala street daily, which vans and public vehicle consists 24 percent.

On the other hand, implementation of the introduction of bus route has not yet been made till 2004.

Request for a YEN Grant Aid was made for CETA 98 implementation through Ministry of Finance BID special team of BID conducted in May, 2004. However, chairman of SETAMA received in approval.

Although the budget of SETAMA for FY 2004 was 2 million USD, the Supreme Court judged allotting 15 percent of fixed asset tax of Asuncion to SETAMA. Therefore, budget in FY 2005 was reduced for 75 percent.

(FY 2005 Domestic Survey)

1. Expansion construction of Choferrel de Chaco is being implemented with own funds.

2. Land procurement has been made for construct of bus terminal in San Lorenzo city.

3. Discussion is in progress with bus companies on bus route reallocation.



# STUDY SUMMARY SHEET

(F/S)

CSA PRY/S 311/99

<b>1. COUNTRY</b>	Paraguay	
<b>2. NAME OF STUDY</b>	The Feasibility Study for the Improvement of the National Road Route 2 and Route 7	
<b>3. SECTOR</b>	Transportation / Road	
<b>4. TYPE OF STUDY</b>	F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Ministerio de Obras Publicas y Comunicaciones, Direccion de Vialidad
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Yachiyo Engineering Co., Ltd.	
<b>7. STUDY PERIOD</b>	Mar.1999 ~ Mar.2000 12month(s) ~	
<b>8. SITE OR AREA</b>	The study area covers the section between San Lorenzo (km 14) and Caaguazu (km 183) of the National Road Route 2 and 7 (approximately 169 km)	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>1) Mini-bypasees The road width in these cities is narrower than that on the inter-city sections and often causes accidents resulting from mixed traffic of inter-city high-speed vehicles and local traffic. Since it is necessary to separate them to ensure safety, it is proposed that bypasses be constructed to circumvent the built-up area.</p> <p>2) Provisions of Climbing Lanes Ascending sections with along, steep gradient slow down the traveling speed of heavy vehicles and reduce the road capacity as a result. In such sections, many traffic accidents occur, involving those trying to overtake slow vehicles. Based on the AASHTO design standard, another lane will be provided for slow heavy vehicles to travel in sections with a gradient of over 3% continuing for more than 500m.</p> <p>3) Construction of Flyer Intersection At the existing intersection near the town Coronel Oviedo, many traffic accidents occur. In order to realize smooth traffic from Coronel Oviedo, where urbanization is taking place, and Route 2 and 7, the rotary intersection will be grade separated, and a flyover will be constructed.</p> <p>Implementation period: 1. Road Improvement, Urgent maintenance (Jan. 2003- Dec. 2004) 2. Bypass Construction (Jan. 2005- Dec. 2009)</p>		

国道2号・7号改良計画調査

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

(FY 2000 Domestic Survey)

The Study team explained the summary of this project to JBIC in Paraguay. The study team has unofficially obtained the intention that JBIC will take up this project as a superior issue. Paraguay government has requested the proposed projects to JBIC.

(FY 2001 Domestic Survey)

The Paraguay government is planning privatization of maintenance, management, rehabilitation and operation of trunk roads by concession.

(FY 2002 Domestic Survey)

Road improvement projects such as national highway construction between Paraguay-P roads are in progress as a loan project. The govt. of Paraguay seems to examine the progress of ongoing projects.

(FY 2003 Overseas Survey)

The total length of the Roads No. 2 and No. 7 is 325 km. The business right for privatization has been granted to the section of 184km between Caaguazu and Ciudad del Este. There is a plan to grant a business right for the remaining sections, which needs a case study.

(FY 2004 Domestic Survey)

Within the total length of 325 km of Road No. 2 and No. 7, construction of 184 km road between Caaguaz and Ciudad del Este has completed. Although further investigation is needed for the remaining sections, there is a plan to commission this.

(FY 2005 Domestic Survey)

The Paraguayan government is considering conducting national highway maintenance with concession scheme. Specifically, the highway placed as an important road maintenance link in southern recurrent road axis has the highest possibility. However, there are some downsides, such as greater risks of investment.

On the other hand, Road No. 7 adjacent to the road was actualised by concession, and is operating from 2000.

# STUDY SUMMARY SHEET

## (M/P)

CSA PRY/S 103/00

<b>1. COUNTRY</b>	Paraguay	
<b>2. NAME OF STUDY</b>	The Study on Economic Development of the Republic of Paraguay	
<b>3. SECTOR</b>	Development Plan / (Development Plan in) General	
<b>4. TYPE OF STUDY</b>	M/P	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Technical Planning Secretariat(STP), Presidential Office
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Daiwa Institute of Research Ltd. Pacific Consultants International (PCI)	
<b>7. STUDY PERIOD</b>	Oct.1998 ~ Dec.2000 26month(s) ~	
<b>8. SITE OR AREA</b>	All the Paraguayan territory	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>1. Agriculture: Assistance to regional speciality goods, assistance to agricultural products export, enhancement of agricultural procedures and existing cooperatives, agricultural finance.</p> <p>2. Industry: Investment promotion, improvement of quality and productivity, market enhancement, industry statistics, establishment of corporate counseling service.</p> <p>3. Transportation infrastructure: Improvement of important transport routes, improvement of transport infrastructures for product distribution, decentralization of infrastructure improvement, enhancement of maintenance control of transport infrastructure, secure funding for infrastructure improvement, creation and promotion of transport sector.</p> <p>4. Human resource development: Assistance to technical schools and agricultural schools.</p> <p>5. Corporate Finance: Rationalize and stabilize bank management, export loan, promotion of capital market, enhance stability of self-financing ability.</p> <p>6. Quality and productivity: Establishment of certification system, enhancement of examination and auditing organization, simplification of export procedures</p> <p>7. Export and investment promotion: Discover export market, improvement of information systems related to export, promotion of internationalizing corporations, promotion of foreign currency direct investment.</p> <p>8. Cluster: Mix feed cluster, vegetable cluster, revitalization of textile industry, processing of Paraiso Gigante and revitalization of forests, development.</p> <p>9. Systematization promotion: Promotion to introduce development strategy.</p>		

<b>PRESENT STATUS</b>	In Progress or In Use
	Delayed
	Discontinued

**Description :**

(FY 2001 Overseas Survey)

1) Based on EDEP, the government of Paraguay formulated the short and long term Socio-Economic Strategy Plan to double the income per person in 20 years. PEES is an integrated, concrete, and the first national plan for national socio-economic development and was announced by the Presidential Order in March 2001. All the concerned ministries and public organizations are obliged to formulate more concrete implementation plans and schedules and to take financial measures for the fiscal year 2002. EDFP/PEES proposed a strategy and a policy of high value added agricultural/industrial production and export for MERCOSUR and the world market.

PEES is planning more than 40 urgent projects (for 2001-2003) to achieve the long-term objectives.

2) The cluster strategy proposed by EDEP/PEES has been institutionalized since March 3, 2002. ONPEC (National Organization for Promoting the Strategy of Competitiveness) was established for the whole nation in July 2001. The promotional organization of ONPEC held more than 8 conferences for regional cluster formation, financial planning, regulations and acts, formulation of action plans, creation of home pages, and establishment of regional organizations.

ONPEC implemented various surveys related to government projects, such as improvement of agricultural/industrial quality control in national level, export promotion, transportation infrastructure development, and elimination of obstacles against national products competitiveness promotion. Permanent Secretariat of ONPEC established as a part of STP is facilitating organizational integration of ONPEC and promotion of cluster formation. ONPEC makes efforts to establish regional cluster organizations in the related areas as well as to enhance the organizational power of ONPEC itself. A JICA expert has joined the ONPEC meeting as an advisor.

3) Since the PEES's announcement, STP has made efforts to procure fund and technologies from overseas including Japan, EU, Spain, Canada and international banks such as IDB and WB.

As for JICA's assistance, the government is requesting, for the fiscal year 2002, a F/S on cluster formation, road development for export promotion, four experts for national system improvement in products quality control, a long-term expert for cluster formation support, and two senior volunteers for agricultural/industrial products export promotion. The government has also requested cooperation programs for enhancement of national products competitiveness in the world market.

(FY 2003 Overseas Survey)

The following projects were implemented.

1) Strengthening of competitiveness in the processing agriculture sector

Fund raising: EU(13,000,000 euro), IDB-FOMIN(US\$640,000)

Description: (EU)

-Strengthening of the national certification organization (ONA), the national committee of weights and measures (INTN) of the national technology standardization office, and the national quality system by the standardization bureau of INTN.

-Development and certification by ISO standard in the zoo sanitary inspection service and the phytosanitary inspection service

-Adoption of a trace system to constantly identify cows and pigs.

-Implementation of National Survey on Agriculture and Livestock Farming (MAG).

-Operation of modern integration process of the national quality system by providing strategic standardization means, plans, budgets and management (STP and CONACYT).

-Adjustment of the development process of legal frameworks of respective concerned organizations based on systematic and comprehensive viewpoints. (Vice President's Office)

-Promotion of investment, production and export through implementing collective strategies by the National Organization for Competitive Strategy Promotion (OMPEC) under the supervision of MIC

(IDB):

-Facilitation of export procedures for non traditional items with many participants from the small and medium enterprise sector.

2) Technical cooperation of Japan: professional engineers

-Instructor fosterage plan to activate small and medium enterprises in Republic of Paraguay Period: 2002 - 2005

-Management improvement plan of small to medium sized farmhouses through dairy in Republic of Paraguay

Period: 2002 - 2004

Description: formulation of appropriate dairy management models adequate for small to medium size producers. 3) Support of agricultural school

3) Support of agricultural school

Fund raising: Spanish government (:US\$104,000)

Description: Improvement and expansion of the education service on the processing agriculture sector in Paraguayan agricultural schools, the dairy product sector in San Pedro, and the sausage sector in Itapua. Repair of classrooms, improvement of equipment, operation of processing agriculture school, fosterage of engineers and ability development of regional producers.

4) Cotton production support project: results have been yielded by intensive activities of Ministry of Agriculture and Industry.

This project is implemented on its own funds through PRODESAL.

# STUDY SUMMARY SHEET

## (M/P)

CSA PRY/A 131/01

<b>1. COUNTRY</b>	Paraguay	
<b>2. NAME OF STUDY</b>	The Study on Reforestation Plan in the Eastern Region of Paraguay	
<b>3. SECTOR</b>	Forestry / Forestry & Forest Conservation	
<b>4. TYPE OF STUDY</b>	M/P	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	National Forestry Service (SFN)
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Japan Forest Technical Association Pasco International Inc.	
<b>7. STUDY PERIOD</b>	Mar.2000 ~ Mar.2002 24month(s) ~	
<b>8. SITE OR AREA</b>	The Master Plan is primarily formulated for the recommended afforestation areas (approximately 4,050,000 ha) and the target area for afforestation is 400,000ha.	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>1) Target work volume for the Master Plan Phase 1 : 50,000ha, Phase 2 : 150,000ha, Phase 3 : 200,000ha</p> <p>2) Forest Management Types Production Forest I-1 : Production of timber wood Production Forest I-2 : Production of fuelwood and pulpwood Production Forest II : Agro forestry Production Forest III : Production of timber wood and protection of livestock Production Forest IV-1 : Production of timber wood and windbreak forest Production Forest IV-2 : Production of fuelwood and windbreak forest Production Forest V : Silvopasture</p> <p>3) Forest Protection 4) Production of Seedlings 5) Implementation System 6) Five Year Afforestation Programme Year 1: 5,000ha Year 2: 5,000ha Year 3: 10,000ha Year 4: 10,000ha Year 5: 15,000ha</p>		

東部造林計画調査

<b>PRESENT STATUS</b>	<p>In Progress or In Use</p> <p>Delayed</p> <p>Discontinued</p>
<p><b>Description :</b></p> <p>(FY 2002 Domestic Survey ) No information.</p> <p>(FY 2003 Domestic Survey ) Delay due to difficulty in procuring the funds.</p> <p>(FY 2003 Overseas Survey ) Although the project is not at the stage of making a formal financing application to main dealing banks or related financial institutions, economic advisors of the government issued an alert relating to the national debt ability. They indicated that the nation does not have enough debt ability to complete the whole project. In the light of this point, increase of domestic production and recovery of economic growth are needed. It is expected that improvement of the condition will lead to enhancement of the debt ability, everything will turn for the better, and overseas loan enough to implement all stages of the project will become obtainable. At present, efforts have been made to acquire economic grant aid for part of the projects listed in the first phase study. The examples include the afforestation program and the agroforestry system intended for small-scale producers.</p> <p>(FY 2004 Domestic Survey) No information to be specifically mentioned.</p> <p>(FY 2005 Domestic Survey) No information to be specifically mentioned.</p>	

# STUDY SUMMARY SHEET

## (M/P)

CSA SLV/A 105/96

<b>1. COUNTRY</b>	El Salvador	
<b>2. NAME OF STUDY</b>	Integrated Agricultural Development Project in the Jiboa River Basin	
<b>3. SECTOR</b>	Agriculture / (Agriculture in) General	
<b>4. TYPE OF STUDY</b>	M/P	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Ministry of Agriculture and Livestock, Directorate of Natural Resources (DGRNR)
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Kokusai Kogyo Co., Ltd.	
<b>7. STUDY PERIOD</b>	Dec.1995 ~ Mar.1997 15month(s) ~	
<b>8. SITE OR AREA</b>	The Jiboa River Basin, 60,000ha	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>Model Projects Cost 15,003,000 USD (Local 6,933,000 Foreign 8,070,000)</p> <ol style="list-style-type: none"> <li>1. Basin Conservation Project : Afforestation Development and Extension, Soil Conservation Development and Extension.</li> <li>2. Agricultural Development Project : Agricultural Development of 3 model areas.</li> <li>3. Agricultural Supporting Project : Strengthening of Agricultural Extension Offices and Project Promoting Organization.</li> </ol>		

ヒボア川流域農業総合開発計画

<b>PRESENT STATUS</b>	In Progress or In Use
	Delayed
	Discontinued

**Description :**

(FY 1997 Domestic Survey)

A change of organizations concerned was carried out after completion of the study. The most part of DGRNR, which was an actual counterpart agency was organized into the Secretaria Ejecutivo de Medio Ambiente (SEMA) (Forestry, Meteorology, Hydrology, etc.). And the director of Sectional Office for Agricultural Planning (OSPA) who was a direct responsible person was relieved. Under such conditions, considering the importance of the Project, the Ministry of Agriculture and Livestock is preparing the request to Japanese Government for Grant Aid.

Situation of the request:

(FY 1998 Domestic Survey)

Although the request for a grant aid assistance covering B/D was submitted in Jan. 1997, no progress has been made.

The amount requested: USD 15,003,000

Contents: Environmental conservation model projects (1. Basin conservation model project, 2. Agricultural Development model project, 3. Agricultural supporting model project).

Governmental organizations were reorganized in Aug. 1997 after the completion of this study, and the director of Sectional Office for Agricultural Planning (OSPA) in charge has been changed. His work had not been well handed over to the successor; follow-up for the project had not been conducted. Although the successor started conducting the follow-up, the above request is kept in Japanese Embassy since grant aid assistance cannot to be applied to El Salvador.

(FY 1998 Overseas Survey)

MAG submitted the request for financial assistance to MIREX in Jan.1998. However, there has not been any response so far.

The request for the project-type cooperation including soil conservation, afforestation, forest agriculture, flood control, water management, monitoring system for water management is to be submitted to Japanese government.

(FY 2001 Overseas Survey)

There is no cooperation from another country and no plan for the completion of any project regarding this project, due to the prioritization of projects from the Government.

(FY 2002 Overseas Survey)

No progress has been regarding this project. No plans exist in the near future for the financing of the project and no other cooperation agency working this project.

(FY 2001 Domestic Survey)

El Salvador is not the object country for a grant aid. As to the loan aid project, the priority on agriculture is low in the national level, therefore, this project is unlikely to be realized.

Japanese technical assistance:

(FY 1998 Domestic Survey)

An expert is dispatched to CENTA which is in charge of research and extension of the agricultural technology.

Situation of utilization:

(FY 1998 Overseas Survey)

The outputs of this study was utilized for the formulation of the National Plan of Economic & Social Development (1999~2004),



## STUDY SUMMARY SHEET (M/P+F/S)

CSA SLV/S 214/97

<b>1. COUNTRY</b>	El Salvador	
<b>2. NAME OF STUDY</b>	Comprehensive Flood Control and Water Resources Development for the Rio Grande de San Miguel	
<b>3. SECTOR</b>	Social Infrastructure / River & Erosion Control	
<b>4. TYPE OF STUDY</b>	M/P+F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Pacific Consultants International (PCI) NIKKEN Consultants, Inc.	
<b>7. STUDY PERIOD</b>	Feb.1996 ~ Sep.1997 19month(s) ~	
<b>8. SITE OR AREA</b>	San Miguel River Basin (2,247km <sup>2</sup> )	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
(M/P)		
Structural Measures : River improvement, Storage in Lake Ormega (10 year return period).		
Non-structural Measures : Floodplain management, Watershed management.		
(F/S)		
Structural Measures : River improvement, Storage in Lake Ormega (2 year return period).		
Non-structural Measures : Floodplain management (San Miguel, Ormega, Jocotal).		

グランデデサンミゲル川流域治水及び水資源開発計画調査

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

(FY 1998 Domestic Survey)

Request of OECF loan was made by the Government of El Salvador to the Japanese embassy in Sep. 1998.

(FY 1999 Domestic Survey)(FY 1999 Overseas Survey)

Official request for OECF loan is not yet submitted to Japanese government.

(FY 2001 Overseas Survey)

The National Development Commission (CND) formed in 1997 made the proposal to impelment this project in the document named 'Acciones Territoriales del Plan de Nacion'. According to the Ministry of Agriculture and Livestock, the Government has priority to execute this project, but due to the budgetary limits, this project is planed to be executed two years after the implementation of the Cutuco Project.

(FY 2002 Overseas Survey)

No progress has been done for the proposed projects.

The Ministry of Agriculture is interested in realizing the project, however it has not been to take any steps forward the study recommendations due to budgetary limitations and restrictions to go into debt, since the earthquakes of Jan. and Feb of 2001. According to the General Director of the Diretion of Natural Renewable Resources in the Ministry of Agriculture, the Rio Grande Project is a priority to the present government. It is planned the arrangement for a loan after the Project on the Reactivation of La Union Port gets into excution.

JICA and CND are working on the formulation of a M/P for the Study on Economic Development, Forcusing on the Eastern Region. Authorities from the Ministry of Agriculture are constantly promoting the projetc as one of the most important factores for the eastern region development

(FY 2003 Overseas Survey)

The El Salvador Government considers that this project is an extremely important project for development of agriculture and livestock farming in the Eastern region and that financing by Japan is necessary for the implementation.

# STUDY SUMMARY SHEET

## (M/P+F/S)

CSA SLV/S 214/98

<b>1. COUNTRY</b>	El Salvador	
<b>2. NAME OF STUDY</b>	Port Reactivation in the Union Province	
<b>3. SECTOR</b>	Transportation / Port	
<b>4. TYPE OF STUDY</b>	M/P+F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Comision Ejecutiva Portuaria Autonoma (CEPA)
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	The Overseas Coastal Area Development Institute (OCDI) Nippon Koei Co., Ltd.	
<b>7. STUDY PERIOD</b>	Oct.1997 ~ Nov.1998 13month(s) ~	
<b>8. SITE OR AREA</b>	Ajacent to the Port of Cutuco, Gulf of Fonseca, La Union Department	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>1.Master Plan(2015)</p> <p>1 container priority terminal : -13(-14*)m X 300m Terminal area(12ha) with 2 gantry cranes</p> <p>2 bulk cargo priority terminals : -13(-14*)m X 520(560*)m *: To accommodate easy future expansion at need</p> <p>Related works such as navigation channel and access road</p> <p>2.Short Term Plan(2005)</p> <p>1 container priority terminal 1 bulk cargo priority terminal Related works such as navigation channel and access road</p>		

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled
<p><b>Description :</b></p> <p>Subsequent Studies: (FY 2001 Domestic Survey) Jul.2001 ~ Oct.2002 B/D (JICA D/D)</p> <p>Finance: (FY 1999 Domestic Survey) CEPA, which is the port management body, has requested Ministry of Foreign Affairs and Ministry of Finance to apply for Japan's soft-loan to construct a new port in La Union department. (FY 1999 Overseas Survey) The assistance from Japanese government for the implementation of D/D has not yet approved. Dispatch of the JBIC fact finding mission for processing ODA loan is suspended. (FY 2001 Overseas Survey) Date of the obtaining of the loan : 25, Oct.2001. Amount of the loan : 11,233 million Yen</p> <p>Content of the Project :</p> <ul style="list-style-type: none"> <li>- Treating general/bulk cargo for the eastern region</li> <li>- Treating containerized cargo at the national level</li> <li>- Treating international containerized cargo</li> <li>- Developing socio-economic activities of the eastern region</li> </ul> <p>The plan for the utilization of the loan is as follows :</p> <ul style="list-style-type: none"> <li>- Civil works: 7,030 million Yen</li> <li>- Equipment: 2,333 million Yen</li> <li>- Consulting: 678 million Yen</li> <li>- Physical contingency: 1,192 million Yen</li> <li>- Total : 11,233 million Yen</li> </ul> <p>The loan still has to be ratified by the legislative Assembly on the session of 8, Nov.2001. (FY 2001 Domestic Survey) The request for Yen loan in Sep.1998 is to be concluded.</p> <p>Construction: (FY 2001 Overseas Survey) No civil works have been done yet. The D/D is in execution and the M/P was modified regarding the dredging of soil, due to the rock formation of the slope, where the soil was supposed to be obtained, instead the soil would be obtained from banks. The advance regarding the D/D during the month of Sept. is as follows:</p> <ul style="list-style-type: none"> <li>- Review of cargo and passenger traffic forecast</li> <li>- Review on characteristics of calling ships</li> <li>- Bathymetric and seismic profiling survey</li> <li>- Environmental survey</li> <li>- The civil works are planning to be initiated in the year 2003 to accomplish in 2006.</li> </ul> <p>(FY 2002 Domestic Survey) Pre-qualification: Feb. 2003 Tender: Aug. - Sept. 2003 Civil works: Nov. 2003- Sept. 2006 (FY 2002 Overseas Survey) CEPA is preparing a plan for the rescue of the wild fauna affected during the construction of this project. The plan consists in the capture of wild fauna in the project site and the transfer of such fauna to a designated area approved by the Ministry of Environment. Additionally, there is a plan for the utilization of cut down trees in the construction of desks or any other tools for rural education in the area.</p> <p>(FY 2003 Domestic Survey) -As of August 2003, the main unit of civil engineering works is under evaluation for preliminary qualification examination. -In the present plan, the terms of work for the main unit of civil engineering works (civil engineering and construction) is expected to last for 36 months. -Operation and management of the target harbor (La Union Harbor) The infrastructure will be improved by CEPA by yen loan and the terminal operator who will subsequently execute operation and management of the facilities will be selected by CEPA from private companies based on concession method. Consequently, since cooperation and coordination between the construction of infrastructure and the concession contract will become indispensable, the Japan Bank for International Cooperation entrusted the "Operation and Management Studies on the Harbor Concession" to the Overseas Coastal Area Development Institute of Japan with the objective of advising CEPA on how to proceed with the concession contract in future (April 2003 - August 2003). Based on the suggestion in the said study, CEPA and the Japan Bank for International Cooperation are preparing for employment of a consultant in order to prepare and supervise the concession contract.</p>		

# STUDY SUMMARY SHEET

## (M/P)

CSA SLV/S 105/00

<b>1. COUNTRY</b>	El Salvador	
<b>2. NAME OF STUDY</b>	The Study on Regional Solid Waste Management for San Salvador Metropolitan Area in the Republic of El Salvador	
<b>3. SECTOR</b>	Public Utilities / Urban Sanitation	
<b>4. TYPE OF STUDY</b>	M/P	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Planning Office for San Salvador Metropolitan Area (OPAMSS)
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Kokusai Kogyo Co., Ltd.	
<b>7. STUDY PERIOD</b>	Dec.1999 ~ Nov.2000 11month(s) ~	
<b>8. SITE OR AREA</b>	San Salvador Metropolitan Area (14 municipalities)	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>1), Collection route improvement, transfer transport (Construction of transfer station and introduction of large-scale trailer trucks), Improvement of Municipal Solid Waste Management (Establishment of regional solid waste management unit and self-supporting accounting system) (Total project costs until 2010: 254,411,000 USD)</p> <p>2) Introduction of medical waste incineration (Total project costs until 2010: 4,297,000 USD)</p>		

<b>PRESENT STATUS</b>	<p style="text-align: center;">In Progress or In Use</p> <p style="text-align: center;">Delayed</p> <p style="text-align: center;">Discontinued</p>
<p><b>Description :</b></p> <p>(FY 2001 Domestic Survey) Execution Unit, which deals with Solid Waste Management issues over the Metropolitan Area, has been established in Planning Office for San Salvador Metropolitan Area.</p> <p>(FY 2002 Overseas Survey) Execution Unit is taking steps forward the project for the construction of Echo Stations in order to establish the separate waste collection. Such project is being negotiated with private companies and consists in the construction of collection centers for recyclable materials in several communities. The objectives of the project are; 1) Diminish the transport costs 2) Elimination of final disposition costs 3) Prolonging the life of Sanitary Landfill Site 4) Employment generation The project consist in the establishment of 8 echo stations, it is planned to attend 516 houses per stations in a total area of 72.75 ha, the total beneficiaries are estimated approximately in 16,500 inhabitants.</p> <p>(FY 2002 Domestic Survey)(FY 2002 Overseas Survey) Japanese Technical Cooperation Dispatch of expert (Short-term expert) : from Aug.10 to Aug.29, 2002 for 'Database Management for Manucipal Solid Waste Management' Training in Japan: from Aug.13 to Sept. 29, 2002 for 'Waste Management Techniques for Central American Countries'</p> <p>(FY 2003 Domestic Survey) Environmental education has been in progress by use of the instructional material proposed in the studies. Enhancement of the organizational capability is in progress.</p> <p>(FY 2003 Overseas Survey) 1) Projects expected to be implemented from June 2001 to 2010: -Master plan for solid waste disposal -Optimization of solid waste collection routes -Recommendation on the transfer station -Management of the solid waste disposal service -Collection of the service fee for solid waste disposal 2) Implemented projects and projects in progress: -Efforts were made on optimization of solid waste collection routes. At present, a report was submitted to San Marcos City and a report to AYUTWOKUSUTEPEKE City is under preparation. On the other hand, requests for support from other municipalities are invited. -A software to establish appropriate tariffs intended for four municipalities - Delgado, Santa Tecla, AYUTWOKUSUTEPEKE and San Marcos - called "COCEPRE" is in the process of installation . -Projects to reduce recyclable resources such as the eco station and the accumulation center, an auxiliary facility of the eco station, are in the process of introduction. 3) Benefit effects: Approximately 2.3 million people in the metropolitan San Salvador area enjoy the benefits.</p> <p>(FY 2003 Overseas Survey) 1 personnel each in 2002 and 2003.</p> <p>(FY 2004 Domestic Survey) Acceptance of trainee: 1 personnel for specially established "Solid Waste Management in Latin America". 1 personnel for training in Mexico (third country training).</p>	

## STUDY SUMMARY SHEET (Basic Study)

CSA SLV/S 504/01

<b>1. COUNTRY</b>	El Salvador	
<b>2. NAME OF STUDY</b>	The Study for Establishment of National Basic Geographic Data	
<b>3. SECTOR</b>	Social Infrastructure / Survey & Mapping	
<b>4. TYPE OF STUDY</b>	Basic Study	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Planning Office for San Salvador Metropolitan Area (OPAMSS)
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Pasco International Inc.	
<b>7. STUDY PERIOD</b>	Mar.1999 ~ Jun.2001 27month(s) ~	
<b>8. SITE OR AREA</b>	San Salvador metropolitan area (14 municipalities)	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<ol style="list-style-type: none"> <li>1. Creation of a topographical map with a scale of 1 to 25,000 that covers 3,700 square kilometers.</li> <li>2. Creation of digital data for GIS use that covers whole of El Salvador and is equivalent to a map with a scale of 1 to 25,000.</li> <li>3. Creation of a situational map (5,100 square kilometers) that maps damages made by earthquakes in January and February 2001.</li> <li>4. Creation of danger area extraction map (5,100 square kilometers) that indicate possibilities of secondary disasters.</li> </ol>		

<b>PRESENT STATUS</b>	In Progress or In Use
	Delayed
	Discontinued

**Description :**

(FY 2002 Overseas Survey)

IGN has been generating income from the sales of the digital maps.

The major problem IGN is facing in the upgrading the maps. One of the recommendation of this Study is upgrading maps because the conventional 1/25,000 maps used were not updated. Though technology transfer was done to the staff in the IGN, some of them no longer belong to the IGN and this is causing blanks in the operation of Ark/View and Ark/Edit.

The director of IGN has been changed. A reinforce to the Cartography Division was done by adding more members and establishing the quality control unit, besides more people has been trained over the subject of digital mapping.

## Status of Utilization:

The digital maps have been widely used by the Ministry of Agriculture, Ministry of Environment, Ministry of Finance and Technical Secretariat of Presidential House.

IGN is negotiating with French Government for a loan of US\$ 12 million for the project, 'Modernization of Cadastre and the National Geographical Institute'. This project intends to include technical transfer, equipment, training in a variety of fields as Geodesy, Flights, photogrammetry, cartography, etc.

The IGN has established contact with the NIMA (National Imagery and Mapping Agency of the United States), in order to digitalize the 1/50,000 maps using as base maps the 1/25,000 topographic maps, product of the propose project.

Though IGN is having progress in the utilization of the maps, there have been certain problems with the equipment, regarding the lack of spare parts and technical service available in the court for CALCOM.

(FY 2003 Overseas Survey)

## Beneficial effects:

The whole country will enjoy the benefits from this geographic information. Even the current incomplete geographic information has been utilized by various organizations and groups including the Ministry of Environment & Natural Resources, the Ministry of Agriculture and Livestock, the Ministry of Economy, the Ministry of Public Works, the Ministry of Foreign Affairs, the civilian police, the National Energy Board, Social Investment Fund and the State Planning. It is also utilized by NGOs and private companies.

(FY 2004 Domestic Survey)

No information to be specifically mentioned.

(FY 2005 Domestic Survey)

No information to be specifically mentioned.



# STUDY SUMMARY SHEET

(M/P)

CSA SLV/A 110/02

<b>1. COUNTRY</b>	El Salvador	
<b>2. NAME OF STUDY</b>	The Masterplan Study on Artisanal Fishery Development in the Republic of El Salvador	
<b>3. SECTOR</b>	Fishery / Fishery	
<b>4. TYPE OF STUDY</b>	M/P	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Ministry of Agriculture and Livestock, Fisheries and Aquaculture Development Center
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	IC Net Ltd. System Science Consultants Inc.	
<b>7. STUDY PERIOD</b>	Aug.2000 ~ Sep.2002 25month(s) ~	
<b>8. SITE OR AREA</b>	Western Region: Auhachapan Province(Garita Palmera, Barra de Santiago), Sonsonate Province(Acajutla, Los Cobanos), La Libertad Province(Puerto de La Libertad), La Paz Provinc(San Antonio Los Blancos, San Marcelino) Eastern Region: Usulután Province(Isla de Mendez, Puerto El Triunfo, Puerto Parada), La Unión Province(Isla Zacatillo, Isla Meanguera, Isla Conchaguita, El Tamarindo)	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
1) Fisheries Statistics Improvement Project: The project aims at collecting, organizing and analyzing of reliable statistical data by introducing a practical and effective Fisheries Statistics System, within the budget scale of CENDEPESCA (Problems) a) Although a statistical system has been introduced, there is no budget b) Lack of data (especially on coastal fisheries) c) CENDEPESCA is not capable make plans for effective fisheries management 2) Project in Support of the Formation of Fishermen's Organizations: The objective is formation and development of the organization of fishermen, by voluntary resource management by fishermen themselves, who use coastal resources. The project aims at building successful examples by fishermen groups with high awareness and formulating model cases which could be disseminated throughout the country. (Problems) a) The only organization -Fishermen's Union- is dysfunctional b) It is impossible that cooperatives develop by themselves. c) Most fishermen are not organized d) Lack of entity to manage fishery resources and to develop market 3) Women's Income Increase Project in Fishing Communities: It aims at the realization of women's independence and development by supporting women's groups which are recently growing. Demonstration projects aim at creating model cases which could be disseminated throughout the country by supporting women's groups with active participation. (Problems) a) Lack of employment opportunities for women in fishing communities b) Due to the reduction of the catch, fishing family income is decreasing. c) Women do not have a measure and skill to improve such situation and there is very few organization to support them. 4) Artisanal Fisheries Diversification Project: By making use of underexploited fishery resources, catching efforts on targeted species will be relaxed to achieve the goal of well-balanced coastal fishery. Demonstration projects will be conducted to test the validity of the fishing method, which will be introduced as a trial, and the possibility of the distribution and processing of underexploited resources. (Problems) a) Limited fish species are caught b) Target fish resources have been depleted c) There are underexploited fish species		

零細漁業開発計画調査

<b>PRESENT STATUS</b>	In Progress or In Use
	Delayed
	Discontinued

**Description :**

(FY 2003 Overseas Survey)

MAG reported the traditional fishery development fund to the legislative assembly through CENDEPESCA under the support of FACOPADES. As a result, this program was approved by the assembly as FIDEICOMISO PESCAR and the traditional fishery project will be implemented with annual contribution of 800 thousand US dollars. The research data of the master plan was useful as the material that supports the appropriateness of this fund.

A request was made to JICA for follow-up of the pilot project for the sake of statistics and short-term dispatch of experts toward the training held for the purpose of formation of fishermen's union. As a result support could be obtained from two experts, Mr. Noriaki Suzuki and Mr. Yasushi Wada. As for the pilot project for the purpose of statistics improvement, a request was made to JICA for support in the follow up with amount of 18,816 USD.

During Mr. Wada's stay in El Salvador, the first artificial reef was set up in El Salvador.

(FY 2003 Domestic Survey)

1. Artificial fish reefs set by artisanal fishermen (2003.09): September 2003, artificial fish reefs were set by artisanal fishermen's initiative. The artificial fish reefs were funded by using the Grass-roots Grant Aid of Japanese Embassy. With cooperation of the Navy, the artificial fish reefs were supplied to a resource conservation zone by using a warship. After one and a-half years past from the completion of the Pilot Project, fishermen and CENDEPESCA have continuously worked.

2. Fisheries Statistics System Technical Transfer, Short-term Specialist (2003.07: 1.5 months): Technical training has been conducted for the practical use of new fisheries statistics system which was introduced by the Pilot Project.

3. Support the Creation of Fishers' Organizations, Short-term Specialist (2003.09: 1.2 months): A short-term specialist was dispatched to support the creation of fisher's organizations to promote the effective implementation of the Master Plan proposed by the Study. The specialist provided advice on the management of the Artisanal Fishery Promotion Fund which was approved during this period. At the same time, the specialist examined the current conditions of fishers' organization at the time of the pilot project implementation and made suggestions for the future.

# STUDY SUMMARY SHEET

(D/D)

CSA SLV/S 403/02

<b>1. COUNTRY</b>	El Salvador	
<b>2. NAME OF STUDY</b>	Technical Evaluation and Appraisal for Detailed Design on Port Reactivation Plan of La Union Province in El Salvador	
<b>3. SECTOR</b>	Transportation / Port	
<b>4. TYPE OF STUDY</b>	D/D	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	COMISION EJECUTIVA PORTUARIA AUTONOMA(CEPA)
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Nippon Koei Co., Ltd.	
<b>7. STUDY PERIOD</b>	Jul.2001 ~ Sep.2002 14month(s) ~	
<b>8. SITE OR AREA</b>	La Union City, La Union Province and its vicinity under the influence of the Project	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>Components of major projects is detailed design and preparation of draft tender documents on the following items.</p> <ul style="list-style-type: none"> <li>One container berth (Length 340m, Depth -14.0m, Crown height +5.0m)</li> <li>One multi-purpose berth (Length 220m, Depth -14.0m, Crown height +5.0m)</li> <li>One passenger berth (Length 240m, Depth -9.5m, Crown height +5.0m)</li> <li>Outer channel dredging (Depth -14.5m)</li> <li>Turning basin dredging (Depth -14.0m)</li> <li>Cargo handling equipment and tug boat</li> </ul>		

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed Partially Completed Implementing Processing	Delayed or Suspended   Discontinued or Cancelled
<p><b>Description :</b></p> <p>(FY 2003 Domestic Survey) The Loan Agreement was concluded in October 2002 The Agreement of Construction Supervision was made in December 2002 At present, pre-qualification of applicants (contractors) is underway.</p> <p>(FY 2003 overseas survey) Details of JBIC loan as follows: - Package A engineering works - Package B purchasing of two panamax cranes - Purchasing of two tag boats Package A, in terms of the engineering works, for the rest of 25 % funds, BCIE executives acknowledged, and necessary work has been in process for making contract.</p> <p>Construction: Current situation for package A: on the process of bidding. Pre-reviewing is done for the bidding companies ( three companies have passed) About package B and C, all the necessary documents for the pre reviewing but there was no 'disagreement' from JBIC.</p> <p>(FY 2004 Domestic Survey) Tender has been conducted on 13th April 2004. As a result, Toa Corporation and Jan De Hul (joint venture) made a tender. The tender price was 152,128,063 USD. Further, negotiation was held with Toa Corporation until 8th November 2004 and tender price of 131,992,000 USD was presented as a consequence. Currently, request for additional funding is revised by the Presidents office. The contract process which CEPA presume is as follow. - Revision of additional budget by the Presidents office: 2004/Nov - 2005/Feb/24 - Signing of Contract: 2005/Feb/28 - Mar/15 - Request for approval to JBIC: 2005/Mar/6 - 21 - Construction implementation: 2005/Mar/22</p> <p>(FY 2005 Domestic Survey) Progress of JBIC projects are as follow; Package A: 3 bidders, opened in May 2004, and concluded in December Package B: PQ planned in February 2006. Tender planned in June 2006 Package C: PQ planned in April 2006. Tender planned in September 2006</p>		

# STUDY SUMMARY SHEET

## (M/P)

CSA SLV/S 101/03

<b>1. COUNTRY</b>	El Salvador	
<b>2. NAME OF STUDY</b>	The Study on Economic Development, focusing on Eastern Region in the Republic of El Salvador	
<b>3. SECTOR</b>	Development Plan / Integrated Regional Development Plan	
<b>4. TYPE OF STUDY</b>	M/P	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Committee of National Development
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	RECS International Inc. Nippon Koei Co., Ltd. UNICO International Corporation	
<b>7. STUDY PERIOD</b>	Oct.2002 ~ Jun.2004 20month(s) ~	
<b>8. SITE OR AREA</b>	focusing on Eastern Region (4 prefectures) in the Republic of El Salvador	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>28 projects/programs were proposed in 6 comprehensive programs:</p> <ol style="list-style-type: none"> <li>1) Agricultural Industry Complex (AIC) development (6 projects)</li> <li>2) Basin development control (5 projects)</li> <li>3) Environment/tourism development (4 projects)</li> <li>4) Enhancement of spacial structure (5 projects)</li> <li>5) Vitalization of La Union Port (4 projects)</li> <li>6) Enhancement of basis for entrepreneurs (4 projects)</li> </ol> <p>In addition, of the pilot projects formulated through participatory approach, pilot projects for indigo industry and improvement of coffee production were implemented.</p>		

<b>PRESENT STATUS</b>	<p style="text-align: center;">In Progress or In Use</p> <p style="text-align: center;">Delayed</p> <p style="text-align: center;">Discontinued</p>
<p><b>Description :</b></p> <p>(FY 2004 Domestic Survey)  After the submission of final reports, as an additional survey, final report-project report in Spanish and digest version for the residents in eastern area are published within the country at the third (3rd) year.  The survey on Eastern Region development program design has been undertaken in 2004/9-12, in order to prepare technical support project, to follow this survey.</p> <p>(FY 2005 Domestic Survey)  Subsequent project: El Amatillo border facility improvement  Funding:  Funding party: Yen Grant  Content: Improvement of bridge and construction of related facilities in El Amatillo between El Salvador and Honduras border.</p> <p>Technical assistance: The implementation of programme formation study of "Eastern area development programme design study"  Period: 2004/Oct - 2004/Nov</p> <p>Others:  A pilot project for "Revival of indigo industry" implemented in this project has been continued widely. The retailing of the product in El Salvador Airport is also being continued. Indigo products were exhibited at the Central America Pavilion in the World Exhibition in Aichi.</p> <p>(FY 2005 Overseas Survey)  Identification of potentially competitive manufacturing product in Gulf Fonseca has been implemented by CMD since the 4th quarter of 2005. Objective of the study is to identify potentially competitive product to facilitate introduction of "one village one product" in Fonseca Gulf region. In addition, to facilitate strengthening of regional producer union and increase its productivity, 30,000 USD was financed by the Deputacion de Barcelona</p> <p>Technical cooperation:  Training:  Regional Development Training: 2 personnel (CND staffs), 2004/Feb/01 - 2004/Feb/20  Rural Development Training: 1 personnel (CND staff), 2005/Nov - 2005/Dec</p>	

# STUDY SUMMARY SHEET

## (M/P)

CSA SLV/S 101/04

<b>1. COUNTRY</b>	El Salvador	
<b>2. NAME OF STUDY</b>	The Study on Economic Development, Focusing on Eastern Region in the Republic of El Salvador	
<b>3. SECTOR</b>	Development Plan / Integrated Regional Development Plan	
<b>4. TYPE OF STUDY</b>	M/P	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	RECS International Inc. Nippon Koei Co., Ltd. UNICO International Corporation	
<b>7. STUDY PERIOD</b>	Oct.2002 ~ Jun.2004 20month(s) ~	
<b>8. SITE OR AREA</b>	4 Eastern districts: San Miguel, La Union, Morazan, and Usulután	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>6 comprehensive programs, 28 projects</p> <ol style="list-style-type: none"> <li>1. AIC development (6 projects): AIC Assistance program, 'One Village One Product' pilot project, Establishment of Agrobusiness Center, Research development and production of organic fertilizer, Saint Miguel sugar refining factory power generation, water industry assistance program.</li> <li>2. Basin development management (5 projects): Saint Miguel River basin water resource development/control, small-scale and micro-irrigation, highland coffee expansion/improvement program, Lempa River downstream re-regulating reservoir dam irrigation, urban and rural water supply improvement.</li> <li>3. Environment tourism development (4 projects): Tourism coordinated promotion program, Gulf of Fonseca environment/tourism development cooperation program, environment awareness improvement program, solid waste control program</li> <li>4. Strengthening of spatial structure (5 projects): Logistic line enhancement, logistic facility location plan and promotion, El Amatillo national border facility improvement, establishment of Northern region longitudinal main roadway.</li> <li>5. La Union port development (4 projects): Free Port Economic Zone (FPEZ) establishment program, Gulf of La Union port city development program, Conchagua geothermal heat investigation, La Union electricity transmission line</li> <li>6. Entrepreneur bases improvement (4 projects): Eastern region middle/higher education scholarship, establishment of politechnic, expansion of PAREMAT, Eastern Region Regional Research Center</li> </ol>		

<b>PRESENT STATUS</b>	In Progress or In Use
	Delayed
	Discontinued

**Description :**

(FY 2005 Domestic Survey)

Eastern region development program design has been conducted as a follow-up of the study from October to November 2004. Technical type cooperation is planned for the implementation of the proposed projects. In addition, construction is planned for container base in La Union port. Furthermore, funding for a replacement of a bridge and construction of related facilities for El Amatillo border facility improvement has been procured from the Japanese government.

(FY 2005 Overseas Survey)

Subsequent study: Bridge construction on Goascoran river

Implementing body: Ministry of Public Works (Ministerio de Obras Publicas)

Objective: To facilitate mobilisation of people and goods

Funding:

Funding party: JICA

Status: Study is being conducted with an assistance from Japanese government



# STUDY SUMMARY SHEET

## (M/P+F/S)

CSA TTO/S 201B/91

<b>1. COUNTRY</b>	Trinidad and Tobago	
<b>2. NAME OF STUDY</b>	Improvement of Water Supply Supervisory System	
<b>3. SECTOR</b>	Public Utilities / Water Supply	
<b>4. TYPE OF STUDY</b>	M/P+F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Ministry of Settlements and Public Utilities Water and Sewerage Authority (WASA)
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Nihon Suido Consultants Co., Ltd. Nippon Koei Co., Ltd.	
<b>7. STUDY PERIOD</b>	Sep.1989 ~ Aug.1991 23month(s) ~	
<b>8. SITE OR AREA</b>	Water supply area of four main water purification plants (Caroni, North Oropuche, Navet and Hollis) on the Trinidad Island (70% of the water supplied population on the Trinidad Island)	
<b>9. MAJOR PROPOSED PROJECT(S)</b>	<p>&lt;M/P&gt; The master plan for the Water Supply Supervisory System(WSSS) will be implemented in two stages, viz. The 1st Stage Plan(1992~1995) and the 2nd Stage Plan(1996~2005).</p> <p>The System comprises two sub-system, namely, the Central Supervisory System(CSS) which covers 4 large systems(Caroni/Arena, North Oropouche, Navet and Hollis) and nearby medium and small systems, and the Local Supervisory System(LSS), which consists of numerous small-sized facilities.</p> <p>Major Facilities Proposed:</p> <ul style="list-style-type: none"> <li>-Expansion of CSS Building</li> <li>-Central equipment of CSS, Repeater Station, Work stations with CRTs at regional offices; RTU stations</li> <li>-Remote operation unit of booster pumping stations; Remote control unit with mini-graphic of flow control valves; -Monitoring equipment flow meters, level meters &amp; pressure gauges and flow control valves at strategic points in waterworks and the transmission/disturbution system</li> </ul> <p>&lt;F/S&gt; Feasibility analysis was undertaken on the 1st Stage Plan proposed in the Master Plan. Major facilities proposed:</p> <ol style="list-style-type: none"> <li>1. Central data processing system(CDPS)</li> <li>2. 48 remote terminal units</li> <li>3. Data radio communication system</li> <li>4. Field instruments and equipment</li> <li>5. Remote control equipment on booster pumping facilities and control valves</li> <li>6. 139 flow meters and 106 motor-driven valves on main production and transmission/distribution facilities</li> <li>7. 21 level meters and 111 pressure gauges on production and transmission/distribution facilities</li> </ol>	

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

## Background:

The project will be implemented at three stages. D/D for Phase I-1 was planned to be commenced from the second half of 1992.

## (FY 1992 Overseas Survey)

The collected data is utilized by IDB and other institutes.

Preparing for D/D to furnish the measuring equipment in the commercial and industrial section.

To fulfill the JICA's prerequisite to the commencement of the project. The Government requested the World Bank for the financial assistance.

As of September 1993, the fund was not secured.

## \*Related Projects

Although it is not the proposed project itself, a part of the related projects (Prevention of water leakage), the early implementation of which was recommended by this Study, has been implemented with the IDB loan.

## (FY 1997 Overseas Survey)

Proposed projects are not realized yet because the proposed system is too expensive and scale is not appropriate.

This study has been used to inform the Authority's water construction and rehabilitation projects up to the present time.

## (FY 1998 Overseas Survey)

The Water and Sewerage Authority is now managed by a Private Operator (Severn Tre TTWS Trinidad and Tobago Water Services), the contract of which is due to expire at March 31 1999. After then the Government is contemplating a Long Term Arrangement with a selected Private Operator.

# STUDY SUMMARY SHEET

## (M/P)

CSA URY/A 101/87

<b>1. COUNTRY</b>	Uruguay	
<b>2. NAME OF STUDY</b>	Survey for the Establishment of Tree Plantation and Utilization of Timber	
<b>3. SECTOR</b>	Forestry / Forestry & Forest Conservation	
<b>4. TYPE OF STUDY</b>	M/P	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Forest Department Ministry of Cattle Raising Agriculture and Fishery
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Japan Overseas Forestry Consultants Association	
<b>7. STUDY PERIOD</b>	Jul.1986 ~ Jun.1987 11month(s) ~	
<b>8. SITE OR AREA</b>	Existing forest and incentive areas of forestation 2,700,000ha	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>1)Establishment of guidelines for wood utilization;                  2)Establishment of a master plan of reforestation;                  3)Measures for improvement of wood industries;                  4)Establishment of system to promote the reforestation; and                  5)Enhancement of social and public function of forests.</p>		

<b>PRESENT STATUS</b>	In Progress or In Use
	Delayed
	Discontinued

**Description :**

## Subsequent Studies:

"Five-Year Plan of National Reforestation"

1989-1990 Upon the request of the Government of Uruguay, the Japanese government conducted F/S based on this M/P.

## Finance:

Based on the findings of this Study, the New Reforestation Act was enacted and most of the proposed project was implemented with the World Bank loan and Japanese fund in 1987.

Oct.9.1989 L/A 7,166 mil. yen (Comprehensive Regional Development Project)(FY 1994 Overseas Survey)

A JICA expert (tree breeding) was dispatched.

Project Type Technical Cooperation Mar.10.1993~Mar.10.1998

## Effect:

(FY 1996 Overseas Survey)

Institutional development of Department Forestry in terms of technic and equipment.

The forest zone is growing significantly. Total area of 178,681 ha has been afforested during 1989-95.

New technologies for nursery and afforestation have been introduced.

The growth of forest sector contributed to increase investment and export and create employment.

# STUDY SUMMARY SHEET

(F/S)

CSA URY/S 301/89

<b>1. COUNTRY</b>	Uruguay	
<b>2. NAME OF STUDY</b>	Development Plan of the International Airport of Carrasco	
<b>3. SECTOR</b>	Transportation / Air Transportation & Airport	
<b>4. TYPE OF STUDY</b>	F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Direccion general de infraestructura aeronautica
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Japan Airport Consultants, Inc.	
<b>7. STUDY PERIOD</b>	Apr.1989 ~ Mar.1990 11month(s) ~	
<b>8. SITE OR AREA</b>	Uruguay: 176,000 sq.km, population 3.01 million. Montevideo(Capital): population 1.36 million	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>The study examined 3 alternatives of 1)Grade 1, 2)Grade 2, and 3)Grade 3. Major development components are as follows:</p> <p>1)Improvement of main runway, taxiway and apron(rehabilitation of deteriorated portion by means of overly during unoperational night time hours);</p> <p>2)Improvement of secondary runway(day-time pavement overly, Grades 1 and 2);</p> <p>3)Extension of the secondary runway(to meet the take-off distance of the short haul aircraft (from 1,750m to 2,050m) Grade 1 only);</p> <p>4)Renewal or upgrading of navigation facilities; and</p> <p>5)Installation of terminal equipment such as metal detector, etc.</p>		

カラスコ国際空港整備計画

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

## Subsequent Studies:

Studies on expansion, modernization, reinforcement and rehabilitation of runway were undertaken.

- 1) F/S on technic, economic, finance, environment
- 2) Basic study on navigation aid facilities
- 3) Final design
- 4) Preparation of international tender document for construction
- 5) Study on passenger terminal, cargo terminal, maintenance(on-going)

## Finance:

Financial source will be procured during preparation of the study report.

## Situation:

The project has been suspended after the completion of F/S. The country's GNP per capita rises to US\$2,620 in 1989, which prohibited official development assistance from DAC foreign governments such as Germany, Italy and France.

Project has been suspended since the completion of F/S in March 1990. The worst economic situation has virtually prevented the Government from seeking a new loan from the developed countries.

The following procurement works have been conducted in an extremely small scale:

- 1) There was no duty-free shops inside the terminal building, and the Government has acquired these shop facilities in January 1991 through competitive tendering method.
- 2) Direccion General de Infraestructura Aeronautica (DGIA) invited tenders for procurement of ground support equipment such as passenger and cargo handling equipment and airport support vehicles in February 1992.

## (FY 1993 Overseas Survey)

The term of reference for the consultants has been made with the cooperation from UNDP and ICAO.

The government approved to allocate some of particular financing. Additionally, financial support from FONPLATA will be available. It is very urgent to repair the access roads.

## (FY 1994 Overseas Survey)

The work proposed by this F/S is consisted of 3 grades. Each of them was not implemented, however, F/S, detail design and preparation of tender documents, concerning with arrangement works of the main runway 06/24 for the year of 1994 (in 70% scale of grade 3), are ordered to a consultant. It is planned to commence the designing at the beginning of 1995 and the construction in January, 1996. But the financial resources are not disclosed.

## (FY 1995 Domestic Survey)

For this project, it has been learnt that the Government is eagerly trying to materialize by means of invitation to the BOT tender and so on, however no news of success come out as yet. For the development of Punta del Este Airport, located at a tourist resort, Canadian cooperation has been decided by the group which promoted the privatization of Tronto Airport. It is also by means of BOT process. Under the present situation that there are no official foreign financial aid including Yen Credit, it will be inevitable to try to find private financing.

## (FY 1996 Domestic Survey)

According to the information obtained in June 1996, SEA Technical SpA, the management body of Milano Airport, would undertake the modernization and expansion project of the Carrasco Airport based on M/P formulated with the UNDP fund. The project cost is expected to be US\$ 62mil.(US\$ 35mil.for the modernization of technical infrastructure, US\$ 27mil.for the expansion of a runway, a taxiway and an apron and US\$ 4mil.for installation of the navigation aid facilities). This expansion will result in the 89% increase of air cargoes by 2000 and 11.3% increase of passengers to 1.26 mil. Because nothing has been heard about the adoption of BOT scheme, it seems that various reasons prevented the Government from promoting it.

## (FY 1997 Domestic Survey)

Modernization and Expansion Project will be funded 60% by IDB and 40% by the government of Uruguay.

# STUDY SUMMARY SHEET

(F/S)

CSA URY/A 301/90

<b>1. COUNTRY</b>	Uruguay											
<b>2. NAME OF STUDY</b>	National Reforestation Plan											
<b>3. SECTOR</b>	Forestry / Forestry & Forest Conservation											
<b>4. TYPE OF STUDY</b>	F/S											
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	INIA										
	<b>PRESENT COUNTERPART AGENCY</b>											
<b>6. CONSULTANT(S)</b>	Japan Overseas Forestry Consultants Association											
<b>7. STUDY PERIOD</b>	Oct.1989 ~ Mar.1991 17month(s) ~											
<b>8. SITE OR AREA</b>	Afforestation promoting area at Paysandu and Tacuarembó Districts.											
<b>9. MAJOR PROPOSED PROJECT(S)</b>												
<p>The study proposed the reforestation of some 100,000 ha during five years, by planting eucalypti, pines, poplars and willows. Annual planting targets are as follows.</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 10%;">1991</td> <td>10,000 ha</td> </tr> <tr> <td>1992</td> <td>15,000</td> </tr> <tr> <td>1993</td> <td>20,000</td> </tr> <tr> <td>1994</td> <td>25,000</td> </tr> <tr> <td>1995</td> <td>30,000</td> </tr> </table>			1991	10,000 ha	1992	15,000	1993	20,000	1994	25,000	1995	30,000
1991	10,000 ha											
1992	15,000											
1993	20,000											
1994	25,000											
1995	30,000											

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

## Finance:

World Bank loan

## Detail:

The newly elected President doubled the target of the National Reforestation Plan from 100,000 to 200,000ha. To response the recent increase of the Eucalyptus export to Europe, the Government of Uruguay tries to find new financial resources, such as bilateral assistance or private investment, other than the present World Bank loan.

## (FY 1993 Overseas Survey)

The reforested area during 1990 to 1992 was 18,000ha per annum in average and in 1993 it reached to 26,000ha. For the last four years the increase of the reforested area was remarkable. The capital investment for forestry has been considerably expanding and the export of high value added timber was started.

## (FY 1994 Domestic Survey)

The Government expects the expansion of foreign investment under the above-mentioned situation.

## (FY 1994 Overseas Survey)

Under the Five-Year Reforestation Plan covering 200,000ha, the reforestation project has been steadily promoted. The Government received the fund from the World Bank for the administration of this project.

## (FY 1995 Domestic Survey)

The concerned authority has been trying to introduce more foreign fund to promote the project further. The implementation of F/S for the conservation of the natural forest is under consideration.

## (FY 1998 Domestic Survey)

The total area of 120,000 ha was reforested during 1990 to 1994, according to year 1996 survey. Domestic companies have mainly conducted reforestation, while foreign company have also conducted reforestation (17,000 ha) in the afforestation promoting area.

## (FY 1999 Overseas Survey)

The total of 373,376ha was reforested during 1989 and 1998. Most of the reforestation have been done by domestic companies and foreign companies (in the last two years).

## Effect:

## (FY 1998 Domestic Survey)

Supply timber has been increased. The project for examination of forest products is planned to be started in 1998 with Japanese assistance, for the purpose of promoting forest industry based on the increasing timber products.

## \*Project-Type Technical Cooperation

"Project for Examination of Forest Products"

Nov.1996 preliminary Study Team dispatched

1998 Implementation consultation



# STUDY SUMMARY SHEET

(F/S)

CSA URY/S 302/92

<b>1. COUNTRY</b>	Uruguay	
<b>2. NAME OF STUDY</b>	Development of New Port Terminals at Montevideo Port	
<b>3. SECTOR</b>	Transportation / Port	
<b>4. TYPE OF STUDY</b>	F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	National Administration of Ports (ANP)
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	The Overseas Coastal Area Development Institute (OCDI) TETRA Co., Ltd.	
<b>7. STUDY PERIOD</b>	Jan.1992 ~ Dec.1992 11month(s) ~	
<b>8. SITE OR AREA</b>	Montevideo	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>- Grain Terminal (1998)( Proposed project cost 1 ) )            Depth : 12m            Length : 270m            Silo : 93,000 ton</p> <p>- Foreign Fishing Terminal (1998)( Proposed project cost 2 ) )            Depth : 5m, 6m            Length : 415m</p>		

モンテヴィデオ港新ターミナル開発計画

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

Subsequent Studies:

M/P review study is scheduled to be carried out.

Financial source: World Bank and Japan Import and Export Bank

Contents of study: Formulation of development strategy including a revision of JICA project.

Finance:

BOT scheme and investment from public sector (plan)

Situation:

(FY 1993 Overseas Survey)

Foreign fishing terminal should be reconsidered based on the expected number of vessels in and out from the terminal.

For Grain terminal, it was suggested to be implemented through out the private investment or joint venture according to the new Port's Policy.

After a new Port's Law approval in 1992, the most of the authorities' energy was devoted to increase the port efficiency with the private sector participation and internal reorganization rather than to develop new infrastructure.

(FY 1994 Overseas Survey)

The Government of Uruguay wishes to develop a new port with a deep draft along the Atlantic Coast, and sounded the possibility to get the technical transfer of concerning technologies to the Government of Japan.

(FY 1996 Overseas Survey)

Fishery terminal project is more promising than Grain terminal project. Because in Argentine, improvement of transport facility is in progress.

(FY 1999 Overseas Survey)

It seems that the review study on M/P was conducted.

# STUDY SUMMARY SHEET

## (M/P)

CSA VEN/S 101/80

<b>1. COUNTRY</b>	Bolivarian Republic of Venezuela	
<b>2. NAME OF STUDY</b>	Design on Cargo Handling Equipments	
<b>3. SECTOR</b>	Transportation / Port	
<b>4. TYPE OF STUDY</b>	M/P	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Institute Nacional de Puertos (INP)
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Japan Cargo Handling Mechanization Association	
<b>7. STUDY PERIOD</b>	Aug.1979 ~ Jul.1980 11month(s) ~	
<b>8. SITE OR AREA</b>	Puerto Cabello	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>The project recommended the installation of loading and unloading systems at the training facility for dockworkers, including one 5-ton derrick cranes, two 5-ton jib-cranes, a mock-up 8,000-ton liner boat to simulate the actual cargo handling operation, a set of simulators for the derrick operation including electrical equipment.</p>		

港湾技術訓練センター建設計画

<b>PRESENT STATUS</b>	In Progress or In Use
	Delayed
	Discontinued

**Description :**

## Reasons of Cancellation:

The Project was cancelled as a result of the negotiations between the INP and the dockworkers union in that the improved cargo handling operations would cause unemployment.

## (FY1994 Overseas Survey)

It already passes more than 15 years after completion of this M/P.

The project had been cancelled as the organization in charge had been privatized and changed, and without any support of the locals.

# STUDY SUMMARY SHEET

## (M/P+F/S)

CSA VEN/S 201B/89

<b>1. COUNTRY</b>	Bolivarian Republic of Venezuela	
<b>2. NAME OF STUDY</b>	Chama River Basin Conservation Project	
<b>3. SECTOR</b>	Social Infrastructure / River & Erosion Control	
<b>4. TYPE OF STUDY</b>	M/P+F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Ministerio del Ambiente y de los Recursos Naturales Renovables
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	CTI Engineering Co., Ltd. Nippon Koei Co., Ltd.	
<b>7. STUDY PERIOD</b>	Nov.1988 ~ Feb.1990 15month(s) ~	
<b>8. SITE OR AREA</b>	Entire Chama River Basin (3,785 sq.m)	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>&lt;M/P&gt; The study proposed a master plan of river and flood control by projecting future development and transportation demands in the basin area through the year 2020.</p> <p>For wide area disaster prevention, the study recommended the construction of 10 units of Sabo dams, 110 units of torrent works, 1,400 units of hillside works and also 53.4km in length of river improvement.</p> <p>For the local disaster prevention project, disaster prevention works at 100 of prone to danger locations and river improvement of 5.4km in length were recommended.</p> <p>&lt;F/S&gt;Construction of 3 units Sabo dams, 18 units of torrent works, 340 units of hillside works and 35.1 km in length of downstream river improvement proposed as the wide area disaster prevention project.</p>		

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

## Subsequent Study:

(FY 1997 Overseas Survey)

1990~1998 D/D

Implementing Agency/ Ministry of Environment and Renewable Natural Resources

## Finance:

(FY 1997 Overseas Survey)

Government budget (200 mil.B for FY 1998)

## Construction:

(FY 1997 Overseas Survey)

1990~1998 Works for flood control, conservation of the river basin and sediment prevention have been implemented.

## Remaining Projects:

(FY 1997 Overseas Survey)

Construction of Sabo dike (9 nos) and a marginal dike at El Vijia lower stream is remained due to the lack of funds.

## Dispatch of an Expert:

A sabo expert was dispatched in June 1990.

## Detail:

(FY 1991 Overseas Survey)

&lt;M/P&gt;

IDB Study (Proyecto de Manejo de Cuencas para Venezuela) was conducted.

&lt;F/S&gt;

Initially, this project was given high priority, however, it is not now.

There is no prospect for the fund procurement and this project is not integrated into the National Development Plan. Although there is a possibility for the project to be implemented, a date for the implementation is unknown.

(FY 1994 Overseas Survey)

The Government of Venezuela requested IDB for the financial assistance, however, it was not responded favorably. The Government plans to make a request again after drawing a more detail plan and determining the administrating agency. The Government desires to implement the JICA projects after the completion of the project financed by IDB.

(FY 1995 Domestic Survey)

This project was planned to be implemented with an IDB loan. However, it has been suspended due to the shortage of fund.

(FY 1996 Domestic Survey)

The worsening economic condition in Venezuela makes it very difficult to promote the big project. Also, the counterpart agency has been undertaking the administrative reform with the cooperation of the World Bank. Therefore, it seems difficult to implement the infrastructure project.

(FY 1997 Domestic Survey)

Implementation of large scale project is difficult owing to the deterioration of economic situation.

(FY 1998 Domestic Survey)

It seems difficult to implement the proposed project, considering the economic situation of Venezuela and restructuring of Ministry of Environment and Natural Resources.

(FY 1999 Domestic Survey)

No additional information.

# STUDY SUMMARY SHEET

(M/P)

CSA VEN/S 111/93

<b>1. COUNTRY</b>	Bolivarian Republic of Venezuela	
<b>2. NAME OF STUDY</b>	Comprehensive Improvement of the Apure River Basin	
<b>3. SECTOR</b>	Social Infrastructure / River & Erosion Control	
<b>4. TYPE OF STUDY</b>	M/P	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Ministry of Environment and Natural Resources
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Nippon Koei Co., Ltd. NIKKEN Consultants, Inc. Kokusai Kogyo Co., Ltd.	
<b>7. STUDY PERIOD</b>	Mar.1991 ~ Oct.1993 31month(s) ~	
<b>8. SITE OR AREA</b>	The Apure river basin having catchment area of 111,800 sq.km, which is one of the largest tributaries of the Orinoco river.	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>(1) Channel Stabilization Plan</p> <p>1)Channel Stabilization Measures for Navigation</p> <p>2)Short-term plan aims to accomplish 8 months navigation from river mouth to San Fernando port and 7 months from San Fernand port to Santos Luzardo port.</p> <p>3)Mid-term plan aims to accomplish 9 months navigation from river mouth to San Fernando port and 8 months from San Fernand port to Santos Luzardo port.</p> <p>4)Total cost will be US\$128,793,000(EIRR=13.7%, B/C=1.46)</p> <p>(2) Flood Mitigation Plan</p> <p>1.Several alternative plans such as dike, dam, retarding basin etc, were formulated and studied from engineering and environmental aspects.</p> <p>2.Long-term plan aims to accomplish the entire flood management plan consisting of :</p> <p>1)construction of dike on the right bank of Portuguesa river(187km long). 2)right bank of Guonare river(145km). 3)left bank of Apure river(155km).</p> <p>3)Short-term plan for priority works in Long-term plan</p> <p>4)Total cost is US\$93,848,000(EIRR=9.2%,B/C=1.15)</p>		

アブレ川河川改修計画調査

<b>PRESENT STATUS</b>	In Progress or In Use
	Delayed
	Discontinued

**Description :**

## (1)Channel Stabilization Plan

Because the M/P for the navigation financed by IDB was not progressed as expected, this study was unable to utilize its results. Therefore, F/S for the navigation project should be implemented after the completion of the IDB-financed M/P.

## (2)Flood Mitigation Plan

The environmental issues have been widely discussed in Venezuela. Therefore, EIA shall be an integral part of F/S.

## Detail:

It is likely that the government of Venezuela will request the Japanese government for the implementation of F/S for the Channel Stabilization Plan and the Flood Mitigation Plan after the completion of IDB-financed M/P because it is interested in the Apure River Navigation Project.

## (FY 1994 Overseas Survey)

Because M/P for Orinoco Apure Plan is scheduled to be completed in June 1995, the government of Venezuela believes the implementation of the projects proposed by this M/P should be suspended by then. The construction of the waterway, a part of the proposed projects, was implemented with the own fund.



# STUDY SUMMARY SHEET

## (M/P+F/S)

CSA VEN/S 217/97

<b>1. COUNTRY</b>	Bolivarian Republic of Venezuela	
<b>2. NAME OF STUDY</b>	Environmental Improvement Program of the Upper and Middle Stream of the Tuy River Basin	
<b>3. SECTOR</b>	Administration / Environmental Problems	
<b>4. TYPE OF STUDY</b>	M/P+F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Ministry of Environment and Natural Resource
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	CTI Engineering Co., Ltd.	
<b>7. STUDY PERIOD</b>	Jan.1996 ~ Aug.1997 19month(s) ~	
<b>8. SITE OR AREA</b>	Tuy River Basin	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
(M/P)		
1.Short-term Plan Factory Treatment Improvement. Sewerage Treatment in Ocumale del Tuy and Las Tejerias.		
2. Mid-Term Plan Expand short-term plan. Institutional improvement.		
(F/S)		
1. Construction of Ocumale del Tuy Sewerage Treatment Plant. 2. Construction of Las Tejerias Sewerage Treatment Plant. 3. Creation of Environmental Fund.		
[Imp. Period]		
(M/P)		
1. 1998~2003 2. 2004~2010		
(F/S)		
1. 1998~2003 2. 2000~2003 3. 1998~1999		

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

Finance:

(FY 2001 Domestic Survey)

Financial source: Canada

Amount of financing: unknown

Contents of the loan project: Cooperation to the construction of sewage facility at one of local cities (Las Tejerias) along the Tuy River

(FY 2002 Domestic Survey)

Recently, it has been reported that Canadian agency was implementing the proposed projects partly (building sewage system). However, detailed information on its progress has not been available due to the fact that the counterpart agency faces organizational reforms as a series of administrative restructuring.

Situation:

(FY 1998 Domestic Survey)

The Study was JICA - World Bank Cooperation Study.

Study reports was submitted to the World Bank and discussions were held considering that priority projects will be implemented using WB fund.

World Bank is now conducting restructuring program of MARNR. In view of the low rate of actual implementation of pledged amount, WB looks negative for new loan.

But there is an opinion that environmental improvement projects should be given higher priority.

It is important that Venezuelan Government recognize importance of environmental improvement.

After restructuring, the project is under Regional Division of MARNR. The follow-up to the Regional Division is needed.

(FY 2001 Domestic Survey)

The Agency of Tuy River Basin which was the counterpart agency became under the jurisdiction of the Local Direction of the Ministry of Environment and Natural Resources as a result of the administrative reform after this Study. This fact resulted to slow in improvement of water environment.

# STUDY SUMMARY SHEET

## (M/P+F/S)

CSA VEN/S 203/00

<b>1. COUNTRY</b>	Bolivarian Republic of Venezuela	
<b>2. NAME OF STUDY</b>	The Study on Integrated River Improvement of the Orinoco River in the Republic of Venezuela	
<b>3. SECTOR</b>	Social Infrastructure / River & Erosion Control	
<b>4. TYPE OF STUDY</b>	M/P+F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	General Sectorial Directorate for the Orinoco-Apre Program (PROA), Ministry of Environment and Natural Resources (MARN).
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Pacific Consultants International (PCI) Pasco International Inc.	
<b>7. STUDY PERIOD</b>	Sep.1998 ~ Oct.2000 25month(s) ~	
<b>8. SITE OR AREA</b>	<p>M/P: The area at the downstream of Ciudad Guayan City surrounded by Rio Grande and Manamo Channel in Orinoco Delta (approx. 22,000km<sup>2</sup>).</p> <p>F/S: The area is in the reach of Guarguapo-Barrancas-Ya-Ya located at the apex of the Orinoco delta where sandbanks and islands are formed and channels are divided due to the deposit of sediment from upstream of the Orinoco River.</p>	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
<p>M/P and F/S: (In the M/P, the comprehensive study on river improvement including dredging aspect was conducted, and in the following F/S, it is evaluated and confirmed for the works identified in the M/P by utilizing the semi-dimensional hydraulic analysis. As the result, it is concluded that the structural measures of river improvement is not feasible.)</p> <p>(1) Structural Measures: It is technically feasible to minimize the periodic dredging requirement in the Rio Grande channel with the provision of structural measures according to the results of two dimensional hydraulic analysis. However, these structural measures are evaluated as economically and financially not viable due to the high construction cost.</p> <p>Moreover, as a result of the closure of Tortola channel, potential adverse environmental effects on the social environment and ecosystem due to stagnation of water body, sediment deposition in both upstream and down stream of the dike, disturbances on the waterway transportation and fisheries industry of local people are also evaluated as significant.</p> <p>Furthermore, as the Orinoco river is a huge river in terms of scale and discharge, unforeseen phenomena in long-term view such as river course changes and morphological variations due to the large-scale improvement measures could not be analyzed by presently available tools of hydraulic analysis and remained as unsolved problems. Therefore, it is risky to propose any structural measures without having considerably high benefit compared to the cost.</p> <p>Consequently, in all overall sense, structural measures to deepen the navigation channel in the Rio Grande are evaluated as not feasible.</p> <p>(2) Dredging Improvement Measures: The periodic maintenance dredging in the channel is evaluated as the only viable means to meet the navigation requirement from the overall viewpoints of technical, economic, financial and environmental aspects. In order to achieve efficient maintenance dredging and to ensure navigational safety, the following dredging improvements are recommended within the scope of work of this study.</p> <ul style="list-style-type: none"> <li>- Provision of RTK/GPS with precision location recording system and drag head positioning system, to locate precisely high spots and shallow reaches required to be dredged in the navigation channel (the feasibility of navigation route recording system: EIRR 493%, FIRR 61%).</li> <li>- Discharge of dredged material away from the channel by means of barge system introduced, to minimize return of disposed materials. As a result, the deterioration of water quality caused by the present method of agitation dredging would be reduced (the feasibility of barge and pusher boat: EIRR 53%, FIRR 18%).</li> </ul>		

オリノコ川河川総合改修計画調査

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

(FY 2001 Domestic Survey)  
 In order to sustain the maintenance dredging continuously in the future and to ensure the safe, efficient and reliable waterway transportation system in the Orinoco river, it is recommended to carry out the following. In response to this recommendation, INC has requested to Japanese Government to provide JICA technical cooperation (fiscal year of 2000).

1. Comprehensive Dredging Study:  
 Implement an integrated dredging study including the executing methods, dredging system, dredging constituent etc., together with the following items.

1) Review of institutional structure for maintenance dredging (Administrative Measures).  
 2) Dredging system including dredging methods and techniques, dredge types etc. (Technical Measures).

2. Fluff Characteristics Analysis:  
 Execute and integrated study to examine the physical properties of fluff in order to determine the most appropriate method of dredging operation at the outer channel as there were no studies previously made on fluff properties in Boca Grande. Moreover, investigate the reaches where fluff is easily deposited and the period when fluff deposition is high, for proper planning of maintenance dredging.

3. Establishment of a committee to study the private consignment of maintenance dredging activities under the planning, management and supervision of INC. Establishment of cooperative framework for organizations which manage either waterway or port in an integrated manner, to deal with future transport cargo volume and vessel traffic volume as well as promoting development of Orinoco River basin.

(FY 2004 Domestic survey)  
 INC, actual implementing body for this project, showed interests to the proposed project and will continue its preparation for the request, says the source.

(FY 2005 Domestic Survey)  
 No information to be specifically mentioned.

# STUDY SUMMARY SHEET

## (M/P+F/S)

CSA VEN/S 201/04

<b>1. COUNTRY</b>	Bolivarian Republic of Venezuela	
<b>2. NAME OF STUDY</b>	The Study on Disaster prevention basic plan in the Caracas Metropolitan Major District	
<b>3. SECTOR</b>	Transportation / Meteorology & Seismology	
<b>4. TYPE OF STUDY</b>	M/P+F/S	
<b>5.</b>	<b>COUNTERPART AGENCY AT THE TIME OF DEVELOPMENT STUDY</b>	Caracas Capital District
	<b>PRESENT COUNTERPART AGENCY</b>	
<b>6. CONSULTANT(S)</b>	Pacific Consultants International (PCI)	
<b>7. STUDY PERIOD</b>	Dec.2002 ~ Mar.2005 27month(s) ~	
<b>8. SITE OR AREA</b>	M/P and F/S: Libertador, Chacao, and Sucre of Caracas capital district	
<b>9. MAJOR PROPOSED PROJECT(S)</b>		
M/P:		
1) Quake resistance building: To strengthen quake resistance of less quake-resistant buildings in the targeted areas		
2) Quake Resistance Bridge: To strengthen quake resistance of less quake-resistant bridges in the targeted areas		
3) Avalanche measures facility: To construct mudslide-control dam, channels, and other facilities		
4) Resettlement: To relocate residents in the areas at high risk of mudslides		
5) Warning and evacuation: To warn and evacuate residents in the areas at high risk of mudslides		
6) Residents education: To provide residents with disaster prevention education, strengthen community associations, particularly those for disaster prevention.		
7) Emergency command center 1: To construct command center for disaster prevention		
8) Disaster prevention information center 1: To establish information system for disaster prevention		
9) Emergency medical center 1: To establish emergency medical center for disasters		
F/S:		
1) Quake resistance building: To strengthen quake resistance of less quake-resistant buildings in the targeted areas		
2) Warning and evacuation: To warn residents in the areas at high risk of mudslides		

<b>PRESENT STATUS</b>	Completed or In Progress	Promoting
	Completed	
	Partially Completed	Delayed or Suspended
	Implementing	
	Processing	Discontinued or Cancelled

**Description :**

(FY 2005 Domestic Survey)

Among the proposed projects in this study, soft components such as education for local people and forecast/warning system, are being implemented by the C/P. Hard components, such as reinforcement for earthquake-resistance and soil erosion protection dam are being prepared by the ministries of each jurisdiction.