Compiled Mar.1990 Revised Mar.1996

MEA OMN/A 401/86			Revised mar. 1990			
I, OUTLINE C	OF STUDY	II. SUMMARY OF STUDY RESULTS	III. PRESENT STATUS OF STUDIED PROJECT			
I.COUNTRY Q 2.NAMEOFSTUDY Wadi Jizzi Agricultu Project		1.SITE OR AREA North Batina coast in the outskirts of Schal city 2.PROJECT COST (US\$1,000) (US\$1= 215yen in 1985) Total Cost Local Cost 27,870 27,870	1.PRESENT STATUS Completed or in Progress Promoting Cost Partially Completed Delayed or Suspended Implementing Discontinued or Cancelled			
3.SECTOR Agriculture/Irrigation, C 4.REFERENCE NO. 5.TYPE OF STUDY 6.COUNTERPART AGENCY	Drainage & Reclamation D/D	2 CONTENTS OF MAJOR PROJECTIS)	(Description) (FY1991 Overseas Survey) 1. At the time of the detailed design, it was agreed that the construction would be financed by loan of the Export Import Bank of Japan. However, the loan fell through because of the Fran-Iraq War, and the project implementation was put off. 2. The project was included in the Ird Five-Year Development Plan (1986-1990), and subsequently implemented by the Government with commercial financing. The construction of the dam was completed by British engineering firm (Sir M. MacDanald & Partners Ltd.) in Aug. 1989, and performed effectively against subsequent floods.			
Ministry of Agriculture		2) Diffusion Facilities 3) Groundwater Observation Well (5 points)	(FY1995 Domestic Survey) No additional information.			
7.OBJECTIVES OF STUDY						
8.DATE OF SAV	1984/7	Imp. Period: 1985.3-1986.3				
9.CONSULTANT(S) Sanyu Consultants Inc. Pacific Consultants Inter	national	4.FEASIBILITY AND Feasibility: EIRR1) FIRR1) ITS ASSUMPTIONS Yes/No EIRR3) FIRR3)				
ractife consultants inter	nacional .	Conditions and Development Impacts: The main function of the dam is to temporarily reserve flood and util groundwater by making flood penetrating in the lower stream.	lize			
No.of Members 13 Period Jan. 1985-Jun	1.1986(18 months)	The project area has only about 130 mm annual rainfall, and therefore the water resources are quite precious. Available groundwater shall be lifted in the plain fields by wells and shall be utilized for drinking irrigation water.				
0.1.104	Japan Field		2.MAJOR REASONS FOR PRESENT STATUS			
Total M/M 39.86 HASSOCIATED AND/OR SUBCONTRACTED STUDY	14.58 25.28		In Oman, water resources are quite precious, and it promotes desaltfication of sea water. So, the project is urgent and well-suited.			
None		5.TECHNICAL TRANSFER				
12 EXPENDITURE Total	287, 929 (¥'000)	1) Local guidance for soil and rock experiment methods	3.PRINCIPAL SOURCE OF INFORMATION ①. ③			
Contracted	265,710					

Compiled Mar.1991 Revised Mar.1996

MEA OMN/A 101/89			Revised Mar. 1996			
I. OUTLINE OF	STUDY	II. SUMMARY OF STUDY RESULTS	III. PRESENT STATUS OF STUDY RESULTS			
1.COUNTRY Omaz 2.NAME OF STUDY Agriculture Development Nejd Region		1.SITE OR AREA Southern Oman, 8,000 sq.km from Nejd region	I.PRESENT In Progress or In Use STATUS Delayed Discontinued			
3.SECTOR		2.PROJECT COST Total Cost Local Cost Foreign Cost (US\$1,000) 1) 4,300 2)	(Description) (FY1991 Overseas Survey) The study for the detailed design of a pilot farm and the 2nd phase of the study (the geological survey) are being implemented by JICA from Mar. 1991 to 1995.			
	n)General M/P	3.CONTENTS OF MAJOR PROJECT(S) A phased agriculture development plan is proposed in this study, based on the actual conditions and limitations of the Nejd. 1. Phase 1	The aim of Phase II survey Designing of a pilot farm Continued observation of underground water funtil Jan 1992) Monitoring of agricultural production Formulation of guidelines for the next agrucultural development			
6.COUNTERPART AGENCY Ministry of Agriculture and		- Establishment of pilot farm; experimentation at pilot farm and collection data. 2. Phase 2 - Development of up to 500ha area based on the result of Phase 1. 3. Phase 3	plan (FY1993 Overseas Survey) Implementation of Phase-1 which involves the establishment of Pilot Farm is in progress. Construction will finish around July, 1994. (FY1994 Domestic Survey)			
7.OBJECTIVES OF STUDY		Further development based on the result of Phase 2.	Construction work started the end of 1992 and completed in 1994 by the Omani government. - JICA is planned to restart the study from the beginning of 1995, after chicking the progress of the construction work, including staff and budget situation. - The study will be continued for coming two years whose main activity is experimental cropping at the farm.			
8.DATE OF S/W	1986/12		The study which aimed to monitor the agricultural production and to formulate the agricultural development program for the second phase development in this area was resumed in April, 1995.			
9.CONSULTANT(S) Pacific Consultants Internat	tional	4.CONDITIONS AND DEVELOPMENT IMPACTS The pilot farm project which will be carried out as the first phase is the most important phase to confirm the development potential of the Nejd. In this regard, early execution of this project is strongly recommended.				
		By this project, lack data such as groundwater potential, type of crops suitable, appropriate cultivation technology, etc., will be clarified systematically.				
10.STUDY TEAM No.of Members 9 Period Sep. 1987-Sep. 1	989(25 months)	As project impacts, the infractructures for living will be provided by accumulation of techniques and experience in desert agriculture.				
Total M/M Ja	apan Field 8.30 40.10		2.MAJOR REASONS FOR PRESENT STATUS			
II.ASSOCIATED AND, OR SUBCONTRACTED STUDY Topographical and geological Settlement of Observation W	. survey, ells					
12 EXPENDITURE Total Contracted	286,182 (¥'000) 240,752	5.TECHNICAL TRANSFER -Acceptance of trainee(1) -OJT -Regular seminars	3.PRINCIPAL SOURCE OF INFORMATION ①、②、③			

Compiled Mar.1992 Revised Mar.1996

MEA OMN/A 102/90			Revised Mar.1996			
I. OUTLINE OF STU	JDY	II. SUMMARY OF STUDY RESULTS	III. PRESENT STATUS OF STUDY RESULTS			
I.COUNTRY Onan 2.NAME OF STUDY A Master Plan for Agricultu Development	ral Who	SITE OR AREA nole country area (Area 300,000 sq.km, Population 1.5 mil, latitude 16 to degrees North, longitude 53 to 60 degrees East)	1.PRESENT In Progress or In Use STATUS Delayed Discontinued			
3.SECTOR Agriculture/(Agriculture in)Gener	us:	Total Cost	(Description) (FY1991 Overseas Survey) The alternative judged as optimal in the JICA study was adopted by the Government of Oman as the basic agricultural plan. Based on the hydrological findings, the location of dams is slightly changed, but most of the proposals of the study were adopted. [FY1994 Domestic Survey] (FY1995 Domestic Survey)			
4.REFERENCE NO. 5.TYPE OF STUDY 6.COUNTERPART AGENCY Ministry of Agriculture and Fisher 7.OBJECTIVES OF STUDY To provide assistance in preparing agricultural development plan for	M/P 2.7 ies 3.1	Irrigation and Dam sector Improveent of irrigation system and centrally- controlled water distribution system / Recharge dams / Sub-surface dams / Aflaj / Wells / Springs Agricultural research / extension sector Support for agricultural research stations / Establishment of new research units and laboratories / Forestry-improvement programme / Improvement and development of extension centers and facilities / Agricultural technology transfer to farmers Livestock sector Animal health and disease control / Small farm development support Distribution sector Establishment of whole sale market / Fortification of PAMAP Integrated agricultural development project in Nejd	No additional information.			
8.DATE OF S/W 1 9.CONSULTANT(S) Japan Agricultural Land Development 10.STUDY TBAM No.of Members 12 Period Oct. 1989-Nov. 1990 (1	(1) (2) (3) (4) (5) (6) (7)	CONDITIONS AND DEVELOPMENT IMPACTS 1) Increase in food self-sufficiency 44%(1988)-55%(2000) 2) Promotion of agricultural productivity 3) Development and efficient use of water resources 4) Improvement of the agricultural structure 5) Stimulation of rural Socio-economy through promotion of agriculture 6) Human resources development 7) Achievement of 1 6.3% annual average growth rate in the GDP onditions: * Maintain consistency with the current, on-going third * Respect Omani society, culture, customs ad lifestyle * Focus on farmer self-reliance				
Total M/M Japan 64.00 14.00 11.ASSOCIATED AND/OR SUBCONTRACTED STUDY Data analysis of LANDSAT imagexy	Field 50.00		2.MAJOR REASONS FOR PRESENT STATUS			
		TECHNICAL TRANSFER Cooperative work to make reports Acceptance of a trainee for training programme	3.PRINCIPAL SOURCE OF INFORMATION ①、③			

Compiled Mar, 1992 Revised Mar, 1996

MEA OMN/S 101/90				AND WEST CONTROL OF THE PARTY SERVICES.	Revised Mar. 1996		
I. OUTLINE OF STUDY			II. SUMMARY OF STUDY RESULTS	III. PRESENT STATUS OF STUDY RESULTS			
1.COUNTRY 2.NAME OF STUDY Port Development f	Oman or Northern Oman		1.SITE OR AREA Port of Qaboos & Sohar (Northern Oman)		1.PRESENT In Progress or In Use STATUS Delayed Discontinued		
3.SECTOR			2.PROJECT COST (US\$1,000) 1) 250,597 105,443 2)	oreign Cost 145,154	(Description) (FY1991 Overseas Survey) The proposed port improvement plan was included, under the project title of Port Development Strategy in Northern Oman, in the 4th Five-year Plan.		
4.REFERENCE NO. 5.TYPE OF STUDY 6.COUNTERPART AGENCE Ministry of Communicat			3.CONTENTS OF MAJOR PROJECT(S) 1.To handle 237,000 TEV containers in 1995, Short-term Develop of the Port of Qaboos is proposed. Reclamation for container is included. 2.Short-term Development Plan of the new port in northern Omar to the year 2000 is proposed to handle increasing cargo after	terminal (Schar) up	1) A feasibility study of the Port of Oaboos was undertaken during 1990-1991 by an Indian consultant with government funds. A detailed design was completed on the expansion of the port, and a tender for the construction has been called. A tender has been recently called on the deepening of the harbor. The construction is scheduled during 1991-1993. 2) The expansion of the Port of Sohar will be considered in the annual plans of the 4th Five-year Plan. No financing is secured.		
7.OBJECTIVES OF STUDY					(FY1993 Overseas Survey) The construction works and dredging of harbour basin of the Fort Sultan Qaboos are in progress, and the entire plan is expected to complete by Oct., 1994. At the new Fort in Northern Oman(at Schar), there is no progress.		
Feasibility study of t northern Gman	he port development 1	ior,			(FY1994 Domestic Survey)(FY1995 Domestic Survey) No additional information.		
8.DATE OF SAV	1989/7						
9.CONSULTANT(S) Overseas Coastal Area Nippon Koei Co., Ltd.	Development Institute	9	4.CONDITIONS AND DEVELOPMENT IMPACTS This project is important for the view point of socioeconomic development in Cman. The effect of the project is as follows 5.6%, FIRR = 4.62%.	lc ; EIRR =			
] 12 Dct.1990(13 month	s)					
Total M/M	Japan	Field		·	2.MAJOR REASONS FOR PRESENT STATUS		
73.27 HASSOCIATED AND/OR SUBCONTRACTED STUI	k :	29.92			This study proposes the appropriate port development program of Qaboos. An expansion of the port of Qaboos is needed because of increase of cargo.		
12.EXPENDITURE Total Contracted	281,838 270,491	(¥'000)	S.TECHNICAL TRANSFER Technology transport about the port development. (Feasibility	Study)	3.PRINCIPAL SOURCE OF INFORMATION ①、②、③		

Revised Mar. 1996 MEA OMN/S 301/94 I. OUTLINE OF STUDY III. PRESENT STATUS OF STUDIED PROJECT IL SUMMARY OF STUDY RESULTS LSITE OR AREA **LCOUNTRY** Oman LPRESENT Completed or in Progress D Promoting Batina Highway (Seeb to Agr:250km) and major 3 bridges in Oman STATUS O Completed 2 NAME OF STUDY Road Development Project in the O Partially Completed [] Delayed or Suspended Sultanate of Oman Total Cost Local Cost Foreign Cost 2.PROJECT COST limplementing 78,628 78,628 1 Discontinued or Cancelled (US\$1,000) O Processing 3,576 3,576 2) (Description) On July, 1995, JICA despatched a survey mission in order to sign the Scope of Works for the implementation of the detail designing work after completion of the feasibility study. Regarding to the urgent repairment of bridges, Oman is implementing the works by its own accounts and says that the foreign aid for this matter will not 3.SECTOR CONTENTS OF MAJOR PROJECT(S) Fransportation/Road 1) Select the location of two-lovel crossing at light rotaries (round abouts) and twelve underground crosswalks along Batina Highway, settle the preference for these items to distribute each fiscal years of 5th 4.REFERENCE NO. be necessary herein after. five year development plan (1997-2002). S.TYPE OF STUDY F/S Carry out the loading test and other inspections for bridges, and recommend adequate methods of maintenance/administration for all of (FY1995 Overseas Survey) 1) JICA has been conducted D/D since Dec. 1995 which is considered to be a one-year work. Although the construction of roundabouts has been commenced, the implementation of other works depend on the Fifth 6.COUNTERPART AGENCY major bridges and methos of repainment for inferior bridges. Specially for the bridges which are very much damaged, recommendation was made to repair them during surveying period, urgently. Bureau of Transportation Five-year Plan allocation. 2) The Ministry of Communications' consultant will be assigned to undertake D/D in 1996. Allocation of EO 3.5 Mil. in the Fifth Fiveyear Plan has been proposed OBJECTIVES OF STUDY Formulation of management plan of main bridges by conducting F/S on two-level crossings and underground crosswalks of Batina Highway on nothern beach for smooth traffic and safety in 1995. -2000. 1993/7 8.DATE OF SAY Imp. Period: EIRR1) 12.90 FIRRI) AFEASIBILITY AND 9.CONSULTANT(S) Feasibility: EIRR2) 10.40 FIRR2) ITS ASSUMPTIONS Pacific Consultants International Yes/No EIRR3) FIRR3) Fukuyama Consultants International, Inc. Conditions and Development Impacts: (1) This project should be included in the 5th five year plan of the country and the budget will be possible to allocate.
(2) Detailed design should be carried out in earlier stage. **10.STUDY TEAM** [Development Impacts] [Development Impacts]
[1]Batina Highway in an expressway and the vehicles used to drive with a speed of more than 100km/hr. However, as there is no crosswalks, inhabitants have to cross on foot. These dangerous situation will be dissolved and make the people much safer.
[2]Vehicles slow down at the rotary (roundbaout) and conform bottlenecks at present moment. However, this problem will be dissolved by means of this project and expected to save the driving time. 21 No.of Members Period Jan. 1994-Jan. 1995 (12 months) Total M/M Field 2.MAJOR REASONS FOR PRESENT STATUS Japan 36.35 54.26 90.61 H.ASSOCIATED AND/OR **SUBCONTRACTED STUDY** Traffic survey, survey works for natural conditions and maintenance and administration of 5.TECHNICAL TRANSFER 3.PRINCIPAL SOURCE OF INFORMATION 12.EXPENDITURE 110n the job training 2) Interim report of bridge loading tests has been made on the conference (Y'000)Total regarding to the road in Oman held by the authority in charge. 439,045 Contracted

和名道路施設整備計画

Compiled Oct. 1995

Compiled Mar.1990 Revised Mar.1996

MEA QAT/S 301/86					Revised mar. 1990	
I. OUTLINE OF STUDY		II. SUMMARY O	F STUDY RESULT	III. PRESENT STATUS OF STUDIED PROJECT		
1.COUNTRY 2.NAME OF STUDY Drainage Improveme	Qatar nt Plan : Doha City	1.SITE OR AREA Musherib 2.PROJECT COST (US\$1,000) 1) 2)	and Fayyan, Doha City Total Cost Local Co 15,981	ost Foreign Cost	I.PRESENT STATUS Completed Completed Delayed or Suspended Implementing Processing Discontinued or Cancelled	
Since 1989, Ministry o and the Municipal Gove	F/S Y of Electricity and Water f Industry and Public Works rnment of Doha ctual up-rising of ground	3) 3.CONTENTS OF MAJOR PROJECT(S) Collecting conduit at Musherib Dis Collecting conduit and water-conve (collecting) + 14.4 km (conveyance) Mangrove park	yance at Rayyan District	t - 5.9 km	(Description) (FY1991 Overseas Survey) As of July 1989, the executing agencies of the project have been changed to the Ministry of Industry and Public Works and the Municipal Government of Doha City. At the time, the Ministry of Industry and Public Works already had its own drainage improvement plan, and the plan proposed by the JICA study was partly utilized for revising the guidelines for drainage improvement. It was decided that the implementation be carried out by consulting both of the plans. 1) PENCOL, England, conducted the detailed designs and engineering services. The construction was done by seven national companies. 2) Construction in Musherib and Rayyan Districts was completed in 1991, and the two systems have been connected. For the remaining areas of Doha City, updating of the Master Plan is considered necessary, involving the integration of the existing small facilities apace with the growth of the City. 3) The project implementation was delayed in 1988 when the oil prices declined. It is expected that the entire plan area will be provided with drainage facilities by the end of 1993. 4) The JICA study suggested the construction of canals from Payyan District through a mangrove park proposed on the west coast, but due to the problem of public finance, the mangrove park project was not adopted. The west coast area is now being developed as residential areas.	
8.DATE OF S/AV	1985/10	Imp. Period:			(FY1993 Overseas Survey) 1994 scheduled to be completed.	
9.CONSULTANT(S) Yachiyo Engineering Co	., Ltd.	4.FEASIBILITY AND Feasibility: ITS ASSUMPTIONS Yes/No	EIRRI) EIRR2) EIRR3)	FIRR1) FIRR2) FIRR3)	(PY1994 Domestic Survey)(PY1995 Domestic Survey) No additional information.	
10.STUDY TEAM No.of Members 8 Period Dec. 1985-7	3 Apr.1987(17 months)	Conditions and Development Important damages due to up-rising countermeasures were studied. For development effects, diminuturban life were expected.	g of ground water and fo	the state of the s		
Total M/M 54.10	Japan Field 17.42 36.68	1			2.MAJOR REASONS FOR PRESENT STATUS 1) Ground water drainage projects, which contribute to the improvement of urban infrastructure and functions, are given high	
II.ASSOCIATED AND/OR SUBCONTRACTED STUI (1) Test construction observation of ground water level)		5.TECHNICAL TRANSFER		nakayayayayayayayayayayayayayayayayayaya	priorities. 2) Financial difficulty due to the fall of oil price 3) Financial and social difficulties entirely caused by the crisis of Gulf War.	
12 EXPENDITURE Total Contracted	244,245 (¥'000) 238,398	1)Training was held for one (1) problem and its measures.	trainee for the ground	water up-rising	3.PRINCIPAL SOURCE OF INFORMATION (i), (i), (ii)	

PROJECT SUMMARY (Other)

Compiled Mar. 1992 Revised Mar. 1996 MEA SAU/S 601/83 III. PRESENT STATUS OF STUDY RESULTS II. SUMMARY OF STUDY RESULTS I. OUTLINE OF STUDY LSITE OR AREA LPRESENT LCOUNTRY Saudi Arabia ☐ In Progress or In Use **STATUS** · 🗀 Delayed NAME OF STUDY 138,703 sq.m in Jeddah (the same site for the cancer centre) General Hospital : Establishment Discontinued Project 2.PROJECT COST (Description) Total Cost Local Cost Foreign Cost (US\$1,000) After the completion of the B/D study, the implementation was 71,383 71,383 1) General Hospital : Establishment 2) 3.SECTOR (FY1994 Domestic Survey) No information Social Infrastructu/Archtecture & Housing 3.CONTENTS OF MAJOR PROJECT(S) Number of Beds: General Hospital: 500 beds Centre: 300 beds 4.REFERENCE NO. Total: 800 beds
Number of Out Patients: 300 P./Day
1. Preliminary Clinics:1,400 P./Day
2. General Hospital: 1,000 P./Day
3. Cancer Centre: 600 P./Day STYPE OF STUDY Other COUNTERPART AGENCY Ministry of Health 3) Number of emergency cases: 250 P./Day
The out patients for Ceneral Hospital and Cancer Centre should be recommended by other institutions. 7.OBJECTIVES OF STUDY To formulate a basic design of General Hospital adjacent to the National Cancer Centre, in Jeddan on the basis of the concept agreed upon between Japan and Saudi 1983/0 8.DATE OF SAY 4.CONDITIONS AND DEVELOPMENT IMPACTS 9.CONSULTANT(S) 1) A focal point of medical care as a cenyral, general hospital in the Azusa Sekkei Co., Ltd. region of the Kidom. Nihon Sekkei, Inc. A place for training of doctors, nurses and other para-medical stuff, in close relation with such educational institutions as the king Abdul-Aziz University. 3) A centre of medical information as well as infectious disease 10.STUDY TEAM 4) Public health activities and clinical research works are expected, No.of Members along
with the high standard diagnostic and therapeutic functions. Period Jul. 1983-Nov. 1983 (5 months) 2.MAJOR REASONS FOR PRESENT STATUS Total M/M Pield Japan The limitation of the public sector finace mainly cauced by the 20.00 16.00 4.00 decline of the prices. H ASSOCIATED AND/OR SUBCONTRACTED STUDY 5.TECHNICAL TRANSFER 3.PRINCIPAL SOURCE OF INFORMATION 12.EXPENDITURE 66,654 (Y'000) Acceptance of trainees (on medical technology)

和名 総合病院設立計画基本設計

Total Contracted

PROJECT SUMMARY (Other)

Compiled Jun.1991 Revised Mar.1996

MEA SAU/S 602/83			Revised Mar. 1996				
I. OUTLINE	OF STUDY	II. SUMMARY OF STUDY RESULTS	III. PRESENT STATUS OF STUDY RESULTS				
2.NAME OF STUDY National Cancer Cen	Saudi Arabia ter : Establishment	1.SITE OR AREA Fast of the old international airport in Jeddah, the area of the site is 138,703 sq.m	1.PRESENT In Progress or In Use STATUS Delayed Discontinued				
Project		2.PROJECT COST Total Cost Local Cost Foreign Cost 1) 485,676 485,676 2)	(Description) Because of the financing problem; the construction was delayed, but one JICA expert was dispatched as part of the health care cooperation program.				
3.SECTOR Social Infrastructu/Arch	tecture & Housing	3.CONTENTS OF MAJOR PROJECT(\$)	(FY1994 Domestic Survey) No information				
4.REFERENCE NO. 5.TYPE OF STUDY	Other	Cancer Center will have: 200 beds, which would extend to 300 in total in the future, special diagnosis and therapy departments, such as radioisotope diagnosis, radiotherapy, chemotherapy and radioisotope therapy, clinical research department, cancer information center.					
6.COUNTERPART AGENCY Ministry of Health		The Join-Use Facilities will have: General clinic, radiodiagnosis, endoscopy diagnosis, physiology diagnosis, clinical laboratory, autopsy, surgery, C.C.R.U., rehabilitation and blood bank sections, common service, maintenance, recreation administration units.					
7.OBJECTIVES OF STUDY To formulate the survey constructing the Nation 200-bed scale in Jeddah	1 Canter Center of	administration units.					
8.DATE OF S/W	1982/8		4				
9.CONSULTANT(S) Azusa Sekkei Co., Ltd.		4.CONDITIONS AND DEVELOPMENT IMPACTS The Cancer Center will provide specialized diagnostic, the therapeutic and clinical reserach and staff training services, and retablish diagnostic and an information dissemination system on these area.					
No. of Members 12 Period Nov. 1982-Au							
Total M/M 12.00 HASSOCIATED AND/OR SUBCONTRACTED STUD	Japan Field		2.MAJOR REASONS FOR PRESENT STATUS				
12 EXPENDITURE Total Contracted	237,026 (¥'000)	5.TECHNICAL TRANSFER OUT on the construction planning of the specialized hospital facilities.	3.PRINCIPAL SOURCE OF INFORMATION ①				

Compiled Mar.1986 Revised Mar.1996

MEA SDN/S 301/77		Revised Mar. 1990			
I, OUTLINE OF STUDY	II. SUMMARY OF STUDY RESULTS	III. PRESENT STATUS OF STUDIED PROJECT			
1.COUNTRY Sudan 2.NAME OF STUDY Road Project el Obeid-Um Ruaba	I.SITE OR AREA Trans-African Continental Road (El Obeid - Um Ruaba about 130 km) 2.PROJECT COST (US\$1,000) Total Cost Local Cost Foreign Cost 40,000 12,500 27,500	LPRESENT STATUS Completed or in Progress ☐ Promoting Completed ☐ Partially Completed ☐ Delayed or Suspended ☐ Implementing ☐ Processing ☐ Discontinued or Cancelled			
3.SECTOR Transportation/Road 4.REFERENCE NO. 5.TYPE OF STUDY 6.COUNTERPART AGENCY	3) 3. CONTENTS OF MAJOR PROJECT(S) An inter-regional transport system in the Sudan has been developed in parallel to the River Nile which runs from south to north through the country. The next target of the development programme will be to improve the transport lines crossing the vast country from Port Sudan to the western areas. Also this project is based on the strategy of the above. The project road starts from El obeid and runs eastward to Um Ruaba (130 km) in a sand dune savanna areas.	(Description) The section examined by the study (130km between Ei Obeid and Um Rusba) was changed as 'Western Agricultural Marketing Road' as shown below, and construction was completed in 1991. 1) Kosti-Temedeli (116km) was studied with Norwegian assistance, and construction was financed by AfDB (US\$ 15 million; June 1987-March 1991). 2) Temedeli-(Um Rusba)-El Obeid (133km) was constructed by USAID finance (October 1987 - September 1991). (FY1991 Overseas Survey)			
RBFC:Roads and Bridges Public Corporation 7.OBJECTIVES OF STUDY Read Study, Traffic Study, Economic Analys	The optimum construction plane proposed after the economic evaluation is divided into three sections El Obeid - Nawa (46 km), Nawa - Semeih (40.50 km), Semeih - Um Ruaba (46.95 km). Construction Period : Year of 1978 - 1982 (including detail design period). Design Conditions Design Speed : 100 km/hr for flat terrain and 80 km/hr hilly terrain	No additional information (FY1994 Domestic Survey) No additional information			
8.DATE OF S/W 1977/3 9.CONSULTANT(S) Mitsui Consultants Co., Ltd.	Imp. Period: 19761977. 4.FEASIBILITY AND Feasibility: EIRR1) 19.10 FIRR1) FIS ASSUMPTIONS Yes EIRR2) 16.00 FIRR2) FIRR3)				
10.STUDY TEAM No.of Members 12 Period Apr. 1977-Mar. 1978 (12 mont)	Conditions and Development Impacts: [Conditions] [1] Inflation: Pay no regard [2] Exchange Rate: LS 1.0 - US\$ 2.52 (June, 1977) [3] Increase in Population: 2.2% per year [4] Increase in Traffic Demand: With the growth rate of 7% p.a., up to 1992 and afterwards 5% p.a. up to 2002 [5] Project Evaluation Period: Prom year of 1977 to 2002 [6] Generated Traffc: 10% of the normal traffic in the first year of road use				
Total M/M Japan 22.10 4.30 II.ASSOCIATED AND/OR SUBCONTRACTED STUDY	Field Field Considerable amount of goods are presently being carried by trucks for long distance hauls on poor conditioned roads. If the paved roads is constructed, the traveling time and damage to goods will be lessened. In addition to that, small vehicles now confined to El Obeid and other urban streets can travel easily to other neighbouring zones on the new road. As a result, diverted and generated benefits are assumed to be generated after all the sections are opened for use.	2.MAJOR REASONS FOR PRESENT STATUS			
Total 222,832 Contracted 188,000	S.TECHNICAL TRANSFER Trainces: These persons were trained in methodology, highway engineering, etc. (V'000)	3.PRINCIPAL SOURCE OF INFORMATION ①、②			

Compiled Mar. 1990
Revised Mar. 1996

I. OUTLIN	E OF STUDY	II. SUMMARY OF STUDY RESULTS				III. PRESENT STATUS OF STUDIED PROJECT			
	Sudan Project in Abu Gasaba	About 20,000ha along W	· · · · · · · · · · · · · · · · · · ·			1.PRESENT STATUS	•	Promoting Delayed or Suspended	
Basin		2.PROJECT COST (US\$1,000) US\$1=0.39SP,	Total C 1) 210, 2) 3)		260 137,500	(Description)	O Trocessing	Discontinued or Cancelled	
3.SECTOR Agriculture/(Agricultur	re in)General	3.CONTENTS OF MAJOR PR	ROJECT(S)			(FY1991 Overs		rant aid.	
4.REFERENCE NO. 5.TYPE OF STUDY 6.COUNTERPART AGENCE Ministry of Agricultur Resources		2 Trrigation Canal : Mai 3 Drainage Canal : Main 4 Road : Main road 206km 5 Embankment : height 2. 6 Pumpi station : 14 cal	n canal 52km, Feed canal 73km, Feede , Farm road 260km 5-4.5m, length 15 iber 1,000-1,100mm discharge 2,100 cu	5km	m	1978 E Har 1979 C Jul 1979 E 1979 E Mar 1981 C	N 500 million yen (farm land de provision of farm machinery desic design completed construction completed /N 1,000 million yen (pilot far desic design completed onstruction completed /N 150 million yen (pilot farm	m expansion)	
7.OBJECTIVES OF STUDY Land reclamation & irr	igation development for					the construct	tic Survey) roject has not been implemented ion of the Pilot farm by the Jan'requested the Japan's Yen Lo	apan's Grant Aid. The	
8.DATE OF SAV	1977/3	Imp. Period: 1978.5-	1986.6	 		-			
9.CONSULTANT(S) Nippon Koei Co., Ltd.			rsibility: EIRR Yes EIRR	2)	FIRRI) FIRR2) FIRR3)				
10.STUDY TEAM No.of Members Period May . 1977-0] 11 Oct.1979(30 months)	Conditions and Develops Conditions: Conditions: Benefit is calculated a between with and winout Development Impacts: •Increase of rice produs •Rise of farmers income •Reduction of flood dame	s the difference project condition ction and living stand	S	of farm production				
Total M/M	Japan Field					2.MAJOR RE	ASONS FOR PRESENT STATUS		
II.ASSOCIATED AND/OF SUBCONTRACTED STU	•								
12 EXPENDITURE Total Contracted	194,729 (¥'000) 153,009	5.TECHNICAL TRANSFE Transfer of rice cultiva to F/S		/p though the	Supplementary study	3.PRINCIPAL	SOURCE OF INFORMATION		

MEA SDN/A 301/79

Compiled Mar. 1991 MEA SDN/S 302/89 Revised Mar. 1996 I. OUTLINE OF STUDY II. SUMMARY OF STUDY RESULTS III. PRESENT STATUS OF STUDIED PROJECT **LCOUNTRY** LSITE OR AREA Sudan **LPRESENT** Completed or in Progress [] Promoting STATUS NAME OF STUDY O Completed Khartoum and Omdurman cities Construction of the New White Nile O Partially Completed [] Delayed or Suspended Bridge Total Cost Local Cost Foreign Cost-2.PROJECT COST @ Implementing 74,551 28,911 45,640 I) (US\$1,000) Discontinued or Cancelled O Processing 2) 3) (Description) 3.SECTOR The costs of the D/D and construction are expected to be financed by Japanese Grant Aid. Disbursements have been postponed due to 3.CONTENTS OF MAJOR PROJECT(S) Transportation/Road political destabilization. A 757.2 m long 4-lane concrete type bridge with sidewalks; consisting of 80 m span PC box girders, 36.2 m span PC 1-girders and RC hollow slab. Bridge (FY1991 Overseas Survey) 4.REFERENCE NO. The JICA Office decided not to make an inquiry on this project. S.TYPE OF STUDY F/S Approach : Omdurman side = 2,285 m Khartoum side = 1,357 m (FY1992 Overseas Survey) Waiting for the answer. COUNTERPART AGENCY 2 at-grade intersections Intersection : Commissionerate of Engineering Affairs, National (FY1994 Domestic Survey) (Omdurman and Khartoum) Capital Khartoum (NCK) The Gov't of Sudan signed the contract with the Chinese contractor (China Gillin International Economic and Technology Corporation) in Mar. 1994. The chinese contructor has commenced the works in Aug. 1994 LOBJECTIVES OF STUDY: (FY1995 Domestic Survey) Paid by raw cotton, a Chinese contractor is implementing. However, this construction works are only for access roads but not include the To examine technical and economic feasibility of constructing a new bridge bridge itself which is not get in work as yet. 1991.8-1995.3 1988/8 8.DATE OF SAV Imp. Period: EIRR1) 17.70 FIRRI) 4.FEASIBILITY AND D.CONSULTANT(S) Feasibility: EIRR2) FIRR2) ITS ASSUMPTIONS Nippon Koei Co., Ltd. Yes/No EIRR3) FIRR3) Central Consultant, Inc. Conditions and Development Impacts: Development Impacts:
1. To releave traffic congestion in Greater Khartoum To releave traffic conjection in Greater Knartoum
 To allow heavy vehicles to pass over the White Nile
 To enlarge the traffic capacity over the White Nile
 To enable rehabilitation works of the existing bridge; by distributing traffic between the existing bridge and the new bridge
 To facilitate the urban development in Omdurman
 An appropriate town plan should be prepared before the **10.STUDY TEAM** No.of Members completion of the bridge. Period Dec. 1988-Mar. 1990 (15.2 months) Total M/M Field Japan 2.MAJOR REASONS FOR PRESENT STATUS 1) Although the highest priority has been given to this project among NCK's projects, implementation is postponed due to political destabilization. 43.83 59.96 16.13 H.ASSOCIATED AND/OR SUBCONTRACTED STUDY Topographic Survey - Subsoil Investigation -5.TECHNICAL TRANSFER 12.EXPENDITURE Seven engineers were involved as Sudanese counterparts and technical 3.PRINCIPAL SOURCE OF INFORMATION

和名 新白ナイル橋建設計画

Total

Contracted

247,869 (1'000

217,440

(I), (2)

transfer was fulfilled by on-the-job-training.
Two counterparts were participated in JICA training program in P/Y 1989.

Counterparts lectured on this study at Khartoum University.

Compiled Mar.1993 Revised Mar.1996

I. OUTLINE OF STUDY		II. SUMMARY OF STUDY RESULTS	III. PRESENT STATUS OF STUDIED PROJECT			
I.COUNTRY 2.NAME OF STUDY Hurga and Nur El D Rehabilitation Pro	Sudan Din Pump Scheme Dject	I.SITE OR AREA The study area is located about 220km south east of Khartoum and extends over the east bank of the Blue Nile between the Rahad and the Dinder rivers. 2.PROJECT COST (US\$1,000) Total Cost Local Cost Foreign Cost 1) 29,268 7,398 21,951	I.PRESENT STATUS Completed or in Progress Promoting Completed Delayed or Suspended Implementing Processing Discontinued or Cancelled			
3.SECTOR Agriculture/Irrigation, 4.REFERENCE NO. 5.TYPE OF STUDY	Drainage & Reclamation	3) 3.CONTENTS OF MAJOR PROJECT(S) 1. Pumping Station: Rated discharge 148sg.m/min./unit X 4sets Design head 24m 2. Power Supply System: 33kv distribution line 9.5km	(Description) Basic design study was conducted from October 1991 to March 1992. (FY1992 Overseas Survey) Waiting for the answer. (FY1993 Domestic Survey) * The official request for the project implementation has not been			
the Hurga and Nur El D.	(MOI) ity study on improvement of in Pump Irrigation Schemes tion of the Hurga and Nur	3. Link Canal: 450m 4. Canal System: New 12.75km Rehabilitation 89.51km Drain 57.35km 5. O&M Facilities: 7nos.	made due to the table situation of Sudan. (FY1994 Domestic Survey) No progress. (FY1995 Domestic Survey) No additional information.			
8.DATE OF S/W 9.CONSULTANT(S) Nippon Koei Co., Ltd.	1989/10	Imp. Period: 4.FEASIBILITY AND Feasibility: EIRR1) 13.80 FIRR1) ITS ASSUMPTIONS Yes FIRR2)				
10.STUDY TEAM		EIRR3) FIRR3) Conditions and Development Impacts: Conditions: 1. The economic useful life of the Project is assumed at 50 years. 2. Economic conversion factor (ECF) of 0.41 was employed. 3. Shadow wage rate (SWR) of 0.35 was employed. 4. All costs are expressed as constant prices at 1990 level.				
No.of Members 1 Period Nov.1990-A	10 Aug.1991(9 months)	Development Impacts: 1. The benefits are expected to increase and reach the full benefit level of \$53,221,000 in the forth year after the completion of the project. 2. Improvement of farmers' income. 3. Vitalizing regional economic activities. 4. Increase in employment opportunity 5. Increase in women's chance of attending social activities.				
Total M/M 39.26 HASSOCIATED AND/OR SUBCONTRACTED STUD None			2.MAJOR REASONS FOR PRESENT STATUS			
12 EXPENDITURE Total Contracted	137,484 (¥'000) 126,107	5.TECHNICAL TRANSFER C/P trainee: 1 Person	3.PRINCIPAL SOURCE OF INFORMATION ①			

MEA SDN/A 302/91

PROJECT SUMMARY (Basic Study)

MEA TUN/S 501/87

Compiled Mar.1990 Revised Mar.1996

I. OUTLINE OF STUDY		II. SU	II. SUMMARY OF STUDY RESULTS			III. PRESENT STATUS OF STUDY RESULTS		
1.COUNTRY 2.NAME OF STUDY Project de cartog	Tunisia raphie topographic		Entire country		1.PRESENT STATUS	In Progress or In Use - Delayed Discontinued	,	
		2.PROJECT COST (US\$1,000)	Total Cost Loc 2,937	cal Cost Foreign Cost 2,472 465	(EVIGOL OVERCORE CONT.	rey) by this study have been extent planning and implementation	tensively	
3.SECTOR Social Infrastructu/Sur	vey & Mapping	3.CONTENTS OF MAJ	OR PROJECT(S)	sq. km	I in their respective	by this study have been extent planning and implementation is considered effective, at their training in Japan, we capacities. lowed by another JICA study maps of scale 1:50,000.		
4.REFERENCE NO. 5.TYPE OF STUDY 6.COUNTERPART AGENC		2)Aerophotos covering	165,000 sq. km			rey)(FY1995 Domestic Survey)		
7.OBJECTIVES OF STUDY To take aerial photograph of 1:200,000 covering District of the country	aph covering entire ical mapping with a so 83,000 sq.km of North	ale						
8.DATE OF SAV	1984/11	4 CONDITIONS AND I	DEVELOPMENT IMPACTS		-			
9.CONSULTANT(S) International Engineer	ing Consultants Associ		e the basis for national deve	looment planning.				
10.STUDY TEAM No.of Members Period Jun. 1985-1	33 Feb.1988(33 months)						
Total M/M 109.92	21.49 8	ield 8.43			2 MAJOR REASONS I	OR PRESENT STATUS		
11.ASSOCIATED AND/OR SUBCONTRACTED STUI None								
12 EXPENDITURE Total	497,253 (5.TECHNICAL TRANS	PIER		3.PRINCIPAL SOURCE	E OF INFORMATION		

Compiled Mar. 1992 Revised Mar. 1996 MEA TUN/S 301/90 III. PRESENT STATUS OF STUDIED PROJECT I. OUTLINE OF STUDY II. SUMMARY OF STUDY RESULTS **LPRESENT** 1.COUNTRY LSITE OR AREA Completed or in Progress Promoting Tunisia STATUS O Completed 2.NAME OF STUDY Western part of Rades port; Tunisia Construction of the Radest - La O Partially Completed [1] Delayed or Suspended Foreign Cost Goulette Connection Facility Local Cost Total Cost 2.PROJECT COST O Implementing 49,712 22,022 71,734 T) Discontinued or Cancelled (US\$1,000) O Processing 2) (Description) 3) 3.SECTOR Formal request of loan from Tunisian Government was submitted to RECONTENTS OF MAJOR PROJECT(S) apanese Government. Transportation/Road construction of the highway deviation around the town of La Goulette and (FY1991 Overseas Survey) The Tunisian Government is reconsidering of the priority projects in the 8th Five-Year Plan. its extension towards Carthage. 4.REFERENCE NO. Cable stayed concrete bridge 75+150+75= 300m Access viaducts = 1,300m The project was not modified. It depends on Tunisian economic 5.TYPE OF STUDY F/S Approach road 6.COUNTERPART AGENCY ccess road for Voie Express 2,000m The D/D will be done by the contractor who undertakes construction works. Total length 5,700m Ministry of Equipment and Housing Preparation of obtaining funds and construction are not yet (FY1993 Overseas Survey) 7.OBJECTIVES OF STUDY Tunisian Government requested Jupanese Government for financial assistance. Conduct a F/S on the construction of a fixed crossing between Rades and La Goulette (FY1994 Domestic Survey) (FY1995 Domestic Survey) No additional information. 1991. -1996. 1989/3 8.DATE OF SAV Imp. Period: 15.00 FIRR1) EIRR1) 4.FEASIBILITY AND 9.CONSULTANT(S) Feasibility: EIRR2) FIRR2) ITS ASSUMPTIONS Pacific Consultants International EIRR3) FIRR3) Nippon Koei Co., Ltd. Conditions and Development Impacts: Conditions: Construction of the highway deviation around the town of La Goulette and its extension towards Carthage. Supplementary borings. IO.STUDY TEAM - Balanced development of Tunis agglomeration. - Relief of traffic congestion in the city center. No.of Members 12 Period Aug. 1989-Dec. 1990 (17 months) Field 2.MAJOR REASONS FOR PRESENT STATUS Total M/M Japan 17.96 46.56 28.60 ILASSOCIATED AND/OR SUBCONTRACTED STUDY Traffic Survey Boring Survey 5.TECHNICAL TRANSFER 3.PRINCIPAL SOURCE OF INFORMATION Accepting of counterpart trainees. Utilization of local consultants. 12.EXPENDITURE 179,909 (¥'000) Total (i), (2) 160,000

Contracted 和名 ラデス・グーレット橋建設計画

Compiled Mar.1993 Revised Mar.1996

I. OUTLINE	OF STUDY	II. SUMMARY OF STUDY RESULTS	III. PRESENT STATUS OF STUDY RESULTS
I.COUNTRY 2.NAME OF STUDY Forest Management i	Tunisia n the Mejerdanet	An area of 5,000sq. km extended over Jendoube and other 4 province in the north western part of the Tunisia.	1.PRESENT STATUS 1. Progress or In Use Delayed Discontinued
Basin 3.SECTOR		2.PROJECT COST (US\$1,000) Not Calculate cost 2) Total Cost Local Cost Foreign Cost 1)	(Description) (1) Tunisia's Dept. of Porestry is preparing the forest management plan passed on the basic plan and the model plan proposed by this study.
Forestry/Forestry & F 4.REFERENCE NO. 5.TYPE OF STUDY 6.COUNTERPART AGENCY Direction General of Forministry of Agriculture	M/P	3.CONTENTS OF MAJOR PROJECT(S) (1) The forest management plan was proposed for the Intensive Area by means of: - Demarcation of national forests - Compilation of forest register & volume table - Development of technology of reforestation and natural regeneration - Formulation of a management plan for the whole area based on the model plan (2) The forest conservation plan was formulated for the dam's water-catchment area(30,000ha) within the Intensive Area. Accodingly, the model designs of those works were prepared.	(2) The forest conservation plan is not being implemented because of the budget limitation. The Tunisian government hopes to obtain financing from Japan for the implementation of the model plan. The proposed forest conservation plan covering an entire watershed was the first of its kind in Tunisia. The Department wants to learn Japanese watershed management methods through direct application of the model plan proposed by the JICA study. (FY1993 Overseas Survey) Central government selected the model made by the JICA study for standard model of development study in future. Local government will conduct further study. Additionally,
7.OBJECTIVES OF STUDY A forest management plan conservation plan for the in the northwestern regionmulated. The aim of to adequate and proper river basin of Tunisia.	n and a forest he Mejerdanet river basi ion of Tunisia will be the plan is to contribut		central government uses the map effectively. (FY1994 Domestic Survey)(FY1995 Domestic Survey) No additional information.
8.DATE OF S/W 9.CONSULTANT(S) Japan Forest Technical	1988/3 Association	4.CONDITIONS AND DEVELOPMENT IMPACTS (1) Conservation of the last remaining forest in Tunisia. (2) Sustainable forest production.	
		(3) Effective use of the forest by the landuse plan. (4) Water resources conservation for drinking and irrigation in the low and middle areas of the watershed. (5) Optimization of the use of irrigation dams by sedimentation control. (6) Increase of agricultural land productivity based on soil conservation.	
No. of Members Period Dec. 1988-Ma	y.1991(30 months)		
Total M/M 94.86	Japan Fiel 52.33 42.5		2.MAJOR REASONS FOR PRESENT STATUS
11.ASSOCIATED AND/OR SUBCONTRACTED STUDY	and the second s		
12 EXPENDITURE Total Contracted	443,892 (¥'00 410,475	5.TECHNICAL TRANSFER (1) To conduct the training of the C/P. (2) To conduct the derial photo interpretation and transfering of its results upon to the topographical maps with the C/P.	3.PRINCIPAL SOURCE OF INFORMATION (1). (2)

MEA TUN/A 101/91

PROJECT SUMMARY (Basic Study)

MEA TUN/S 502/93

Compiled Mar.1995 Revised Mar.1996

I. OUTLINE OF STUDY		II. SUMMARY OF STUDY RESULTS				III. PRESENT STATUS OF STUDY RESULTS				
1.COUNTRY 2.NAME OF STUDY La Cartographie	Tunisia Topographique de	la	1.SITE OR AREA Central Region in Tunisi	3			1.PRESENT STATUS	In Pro Delaye Discor		
Region Centrale Tunisienne (Topo Central Region)			(US\$1,000)	Total Cost	Local Cost	Foreign Cost	laa fiasi sesakaata	ed in Aug. 1990 and maps of Central R	i i	
3.SECTOR Social Infrastructu/S	Survey & Mapping		3.CONTENTS OF MAJOR				They will publithe planning of t	sh for official use he 8th Social Econo	and are expect- omic Development	ed to be used for Plan.
			1)Aeral photography of 1/ 2)Topographic Mapping of		22 0005-21		(FY1995 Domestic No additional i	Survey) information.		
4.REFERENCE NO. 5.TYPE OF STUDY	Basic S	- uzlu	2)ropographic mapping of	1/50,000(45 sneets,	27,00081027					
6.COUNTERPART AGE Office de la Topogra Ministere de l'Equip	NCY phie et de la Carto	graphie								
7.OBJECTIVES OF STU Aerial photgraphy of topographic mapping	1/60,000 for 35,00	0km2 and 000km2								
					: :					
8.DATE OF SAY	1990/	2						•		
9.CONSULTANT(S)		.7	4.CONDITIONS AND DEVI		and the second				:	
International Engine Pasco International	_	ssociation	Central Region of the 8th	Social Economic Dev	velopment Plan					
10.STUDY TEAM		ar more maken in maken kendinan yandad n	·							•
No.of Members Period . 1990-Ma	15 r.1994(43 month	s)								
Total M/M		Field				:	2.MAJOR REASO	NS FOR PRESENT S	STATUS	
Total M/M 148.16	Japan 39.70	108.42						المناور والمناور والمناور والمناور المناور والمناور والمناور والمناور والمناور والمناور والمناور والمناور والم		
11.ASSOCIATED ANDA SUBCONTRACTED ST Aerial Photography	OR	200,46								
		···	5.TECHNICAL TRANSFER		-		3.PRINCIPAL SOL	JRCE OF INFORMA	TION	
Total Contracte		72 (¥'000) 96	Technology was transferred		Tunisia or Ja	apan :	0	The state of the s		

Compiled Mar. 1995 MEA TUN/S 502/93 Revised Mar. 1996 I. OUTLINE OF STUDY II. SUMMARY OF STUDY RESULTS III. PRESENT STATUS OF STUDIED PROJECT **LCOUNTRY** Tunisia LSITE OR AREA LPRESENT Completed or in Progress Promoting 2.NAME OF STUDY STATUS O Completed Greater Tunis and Sousse Flood Protection for Greater Tunis and O Partially Completed Delayed or Suspended Local Foreign 2 PROJECT COST O Implementing Cost Cost 2) (US\$1,000) Discontinued or Cancelled O Processing F/S 1) 24,000 24,000 (US\$ 1,000) (2) 11,000 11,000 3.SECTOR In the F/S report, it was recommended NOEH to take immediate necessary actions for further steps such as securing finance, land acquisition of proposed retarding basins and river stretches, and so 3) ocial Infrastructu/River Erosion Control 3.CONTENTS OF MAJOR PROJECT(S) 4.REFERENCE NO. As a result of master plan study on flood protection for 11 urban drainages, P/S was conducted on Ennkhilet river in Greater Tunis and on Hammam river in Greater Sousse. (FY1995 Domestic Survey) According to the officers in charge of MOEH, they eagerly wish to make detail design by means of Japanese aid, and to implement the construction works continually. STYPE OF STUDY M/P+F/S 6.COUNTERPART AGENCY 1.Ennkhilet river: bank protection works for all river stretches and construction of a diversion channel and four retarding basins. finistry of Equipment and Housing (MOEH) 2. Hammam river bank protection works for the upper and lower river 7.OBJECTIVES OF STUDY To formulate a master plan and to make F/S on the flood protection program for Greater Tunis and 1992/9 8.DATE OF S/W 9.CONSULTANT(S) Nippon Koei Co., Ltd. 1994. -1998. Imp. Period: EIRR1) 24.60 FIRR1) 4.FEASIBILITY AND Feasibility: EIRR2) FIRR2) ITS ASSUMPTIONS Yes/No EIRR3) FIRR3) **10.STUDY TEAM** Conditions and Development Impacts: Conditions for Economic Evaluation
1.Project life of 50 years
2.Construction period of 5 years
3.0/M cost = 2 % of direct construction cost No.of Members Period Feb. 1993-Mar. 1994 (14 months) Field Development Impacts
1. The project is divided into 2 stages, 1st stage for 10-yr flood protection and 2nd for 100-yr.
48.80 2. EIRR was estimated for 1st stage. Total M/M Japan 2.MAJOR REASONS FOR PRESENT STATUS 23.20 HASSOCIATED AND/OR SUBCONTRACTED STUDY River Survey Geological Survey 5.TECHNICAL TRANSFER 12.EXPENDITURE 3.PRINCIPAL SOURCE OF INFORMATION Training in Japan Explanation for the report in each stage 284, 406 (¥'000) Total 231,731 Contracted

和名 都市洪水対策計画調査

Compiled Mar. 1988 Revised Mar. 1996

MEA TUR/S 101/85			Revised Mar. 1996
I. OUTLINE O	F STUDY	II. SUMMARY OF STUDY RESULTS III.	PRESENT STATUS OF STUDY RESULTS
1.COUNTRY TU 2.NAME OF STUDY Ankara Air Pollution	rkey Control Project	1.SITE OR AREA 1.PRESE STATU	itt Hogicis of itt Osc
3.SECTOR) Hinistri	otion) pplication for yen credit for the rentan plant was approved at resistant meeting attended by representatives of four es. Subsequently the Government of Turkey decided to use gas and withdrew the application.
Administration/Environmenta	al Problems	3.CONTENTS OF MAJOR PROJECT(S) (FY1993 Observ	Overseas Surveyl vation is continued using the equippments
4.REFERENCE NO. 5.TYPE OF STUDY	M/P	1) Bioccal plant 100,000t/yr Splants 2) Rentan plant 80,000t/yr Splants (FY1994	after the study Domestic Survey) Iditional information.
6.COUNTERPART AGENCY General Directorate of Env Ministry, Republic of Turk	vironment, Prime	The amount of investment are follows: 1) Biocaol Plant 29,640 (million Turkey Lira) 2) Rentan Plant 7,720 Other proposed projects are: improvement of heating systems, and development of boiler systems. The investment is estimated 10,270 million Turkey Lira. It is also proposed that clearer energy than coal, oil and so on should be introduced in future.	internal internation.
7.OBJECTIVES OF STUDY Air pollution control		introduced in rucure.	
8.DATE OF SAV	1983/7		
9.CONSULTANT(S) Pacific Consultants Intern	national	4.CONDITIONS AND DEVELOPMENT IMPACTS [Conditions] Boiler and heating facilities should be managed effectively in order to maximize the merit of biocoal and Rentan. [Impacts]	
		These projects will reduce 77% of the exhaust amount of SO2 in winter so as to override the warning level determined by Ankara city.	
No. of Members 19 Period Nov. 1984-Dec.	.1985(12.5 months)		
Total M/M 25.84 HASSOCIATED AND/OR SUBCONTRACTED STUDY	Japan Field 25.84	11 The : 21 The	project cost is too large. alternative of increasing the import of natural from USSR was chosen.
12.EXPENDITURE Total Contracted	212, 875 (¥'000) 204, 320	5.TECHNICAL TRANSFER 1)On the job training for counterpart staffs at JICA/Environmental Agency 2)Overseas training for 3 counterpart staffs for 1 month 3)Employment of local consultants for boring work 4)Provition and assistance in	CIPAL SOURCE OF INFORMATION

Compiled Mar.1991 Revised Mar.1996

MEA TUR/A 301/89			Revised Mar. 1996
I. OUTLINI	E OF STUDY	II. SUMMARY OF STUDY RESULTS	III. PRESENT STATUS OF STUDIED PROJECT
I.COUNTRY 2.NAME OF STUDY Adatepe Irrigation	Turkey Project	1.SITE OR AREA Central Kahraman Maras province (600 sq.km, population 75,000)	1.PRESENT Completed or in Progress Promoting STATUS Completed Partially Completed Delayed or Suspended
		2.PROJECT COST Total Cost Local Cost Foreign Cost (US\$1,000) US\$1=1,220.7TL in 1988 2)	() Processing () Discontinues of Cancelles
3.SECTOR Agriculture/(Agricultur 4.REFERENCE NO.		3) 3.CONTENTS OF MAJOR PROJECT(S) Irrigation area: 46,000 ha Dam: Adatepe dam(89.0m height, 651.0m crest length) Hain canal: 76km (concrete lined, open canal) Fump station: 8 sites (0.18-3.98cu.m/s discharge)	(Description) This project has been given attention as an important step to develop the economically lagging southern Anatolia region. However, the project is for the time being suspended due to priority of central government with 3 main national programs of (1) structural adjustment (2) development of eastern region, and (3) countermeasures to Ankara air pollution. Properly timed, further effort to promote project is required.
5.TYPE OF STUDY 6.COUNTERPART AGENC Devlet Su Isleri(DSI), State Hydraulic Works	F/S or General Directorate of		As of Dec. 1991, the situation described above has remained essentially unchanged. However, there has been inquiring from the Turkish Ministry of Agriculture, Forestry and Fisheries regarding the neighboring Karakus irrigation project (similar in nature to the Adatepe Irrigation Project). The F/S for the Karakus project was carried out by the Turkish government, and subsequently revised at the time of the Adatepe F/S. Recording to Mr M Kusat Director for DSI No.20 Kahramanmaras
objectives of the Stud	nt in Adatepe area. The y are to formulate a plan project in Adatepe Area and conomic and financial		office, DSI plans to construct the Adatepe irrigation dam within 1993. (FY1993 Overseas Survey) It is postponed to construct Adatepe dam because of financial problem. But government of Purhy keeps US\$ 200,000 for the project in the 1994 nation's budget.
8.DATE OF SAV	1988/6	Imp. Period: 1991.1-1998.12	(FY1994 Domestic Survey) No progress.
9.CONSULTANT(S) Chuo Kaihatsu Internat Naigai Englneering Co.		4.FEASIBILITY AND ITS ASSUMPTIONS Feasibility: EIRR1) 15.00 FIRR1) 12.40 EIRR2) EIRR3) FIRR3)	(FY1995 Domestic Survey) No additional information. (FY1995 Overseas Survey) The project has been implemented since 1994 with the DSI's own
10.STUDY TEAM		Conditions and Development Impacts; New dam and canal construction will secure stable water supply allowing introduction of new cropping pattern. On this basis, yields for with and without Project were calculated. Benefit from river improvement was computed in terms of prevention of saline intrusion and reduction of inundation by flooding.	fund.
No.of Members 9	Dec.1989(6 months)	Impacts of the project are as follows: 1.Increased yields 2.Increased farmer income 3.More efficient land use 4.Prevention of saline intrusion and flooding 5.Rectification of difference of development degree among regions	
Total M/M 58.00	Japan Field 20.50 37.50	6.Improved standards of living	2.MAJOR REASONS FOR PRESENT STATUS
11.ASSOCIATED AND/OR SUBCONTRACTED STUI Topo-mapping Test drilling(2 sites)	R P		
12 EXPENDITURE Total Contracted		5.TECHNICAL TRANSFER 1)Training in Japan (3 persons); 2)OJT; and 3)Attendance at International Conference on Exrigation and Drainage in Tokyo.	3.PRINCIPAL SOURCE OF INFORMATION ①、②、③

Compiled Mar.1992 Revised Mar.1996

MEA TUR/S 201B/90		Revised Mar.1996		
I. OUTLINE OF STUDY	II. SUMMARY OF STUDY RESULTS	III. PRESENT STATUS OF STUDIED PROJECT		
I.COUNTRY Turkey 2.NAME OF STUDY Development Project of Filyos Port	1.SITE OR AREA Filyos 2.PROJECT COST M/P 1,470,000 Local Foreign Cost Cost	LPRESENT Completed or in Progress Promoting STATUS Completed Partially Completed Delayed or Suspended Implementing Processing Discontinued or Cancelled		
3.SECTOR Transportation/Fort 4.REFERENCE NO. 5.TYPE OF STUDY M/P+F/S 6.COUNTERPART AGENCY DLB, General Directorate of Railways, Ports and Airports Construction, Ministry of Transport 7.OBJECTIVES OF STUDY 1) To prepare a port development strategy for the Ankara Metropolitan Area and its adjacent areas; 2) To formulate a master plan and to examine the feasibility of a possible new port	2) 3) 3.CONTENTS OF MAJOR PROJECT(S) cM/P> The Study prepared a port development strategy to improve cargo transport efficiency to and from the Ankara Metropolitan Area (AMA) and its adjacent areas, formulated a two-stage master plan with the target year of 2010, and analyzed the feasibility of the short-term plan (up to 2000) of developing a possible new port (Filyos Port). Development Plan (through 2010): 11 Container terminal: depth -12m, 4 berths, 1,000m (for 270,000TEUs) 2) General cargo berths: depth from -10 to -12m, 5 berths, 1,150m(for 1.21 million tons) 3) Cosl & ores berth: depth -20m, 400m (for 5 million tons) 4) Grain berth: depth -12m, 1,000 (for 150,000 tons) 5) Steel berth: depth from -10 to -12m, 1,000m 6) Other facilitities: Breakwater 2,550m, and Cargo handling machinery e (container cranes, unloaders, transfer cranes, fork lifts, etc.) cry/s> The Study formulated a two-stage master plan with the target year of	(Description) Implementation of Filipos Port project was postponed while expansion of Iskendern Port will be done in order to handle expected increasing cargo volume. Concerning expansion project of Iskendern Port, the Government of turkey has already submitted the official request to the Embassy of Japan. (JICA has not received it yet.) (FY1992 Overseas Survey) Waiting for the answer. (FY1994 Domestic Survey) (FY1995 Domestic Survey) No additional information. (FY1995 Overseas Survey) The project should be reviewed because the political, economical and social conditions both inside and outside the country have changed drastically. At the moment it is being waited the top level decision.		
8.DATE OF S/W 9.CONSULTANT(S) Overseas Coastal Area Development Institute Japan Port Consultants Co., Ltd.	Cargo handling capacity:			
86.28 40.39 45.8 11.ASSOCIATED AND/OR SUBCONTRACTED STUDY - Wave observation	Conditions and Development Impacts: <conditions <="" f="" m="" p,="" s=""> Economic growth rate: 5 - 7%; cargo Demand:Container cargo 97,000TEUS(year 2000) 270,000TEUS(year 2010); Others 6,320,000 tons(year 2020) 15,730,000 tons(year 2010); Others 6,320,000 tons(year 2020) 15,730,000 tons(year 2010); Others 6,320,000 transportation for port cargo transportation to and transportation for industries in the vicinity of the port as well as in the hinterland of the port. The port project will stimulated industrial investment, and thus this will expedite the development of the regions. Possible industries locatable in the first stage: (1)food processing, (2)wood processing, and (3)shipbuilding & repairing Possible industries locatable in the second stage: (1)fron & steel, (2)processing of local resources depending on thermal electric power, and (3)petroleum industry</conditions>			
- Sounding - Boring 12 EXPENDITURE 329,380 (¥'00C Contracted 326,800 14名 フィリオス協建設計画	5.TECHNICAL TRANSFER Out of counterparts during the study seminars on port planning, economic & financial analysis, etc.	3.PRINCIPAL SOURCE OF INFORMATION ①, ②, ③ [M/P+F/S]		

PROJECT SUMMARY (Basic Study)

Compiled Mar.1995 Revised Mar.1996

MEA TUR/A 504/93	· ·		Revised Mar.1996
I. OUTLIN	E OF STUDY	II. SUMMARY OF STUDY RESULTS	III. PRESENT STATUS OF STUDY RESULTS
1.COUNTRY 2.NAME OF STUDY Demersal Fisheries	Turkey s Resource Survey	I.SITE OR AREA Republic of Turkey (Fopulation 5,554 million. Area 814,758km2); Areas coverd a roughly 52,000km2 at water depths of 20-500m in the Sea of Marmara. Aegean Sea and Mediterranean Sea	1.PRESENT In Progress or In Use STATUS Delayed Discontinued
3.SECTOR Fisheries/Fisheries		2.PROJECT COST (US\$1,000) Total Cost Local Cost Foreign Cost 1) 2) 3.CONTENTS OF MAJOR PROJECT(S)	(Description) 1.Based on the final report: 1)Under the consideration of statistical system on fisheries statistics 21Arrangement on report of International Bank for Reconstruction and Development
4.REFERENCE NO. 5.TYPE OF STUDY 6.COUNTERPART AGENCE Ministry of Aguriculturorestry and Rural Africal Africans	ure.	-Collection of fisheries data and construction of a management organization -Expansion and strength of fisheries administration and research institutions -Continuation of fisheries resource survey(reanalysis of acquired data rearrangement of survey species and items) -risheries regulations (enlargement of cod end mesh size reallocation of fishing efforts) -Rational utilization of marine resources (utilization and develoment of unutilized and unexploited marine resources, utilization of marine resources other than trawling gear)	2. The following assistance have been offered: 1) Ministry of Agriculture and Rural Afairs (MARA) request to the Japanese Government to carry out feasibility study on environment and fisheries resources survey in the Black Sea 2) Suspension of the loan of International Bank of Reconstruction and Development, because of another 4 fisheries surveys have no finalize 3. Activities toward the development of fisheries have been started: 1) Japan International Cooperation Agency have received the aquaculture projects 2) MARA proposed to the Japanese Government to carry out the Project- Type technical cooperation aquaculture
7.OBJECTIVES OF STUD Evaluation of demersal the territorial waters	l fisheries resources around s in the Republic of Turkey	-Promotion of propagation and aquaculture	(FY1995 Domestic Survey) JICA is going to commence the technical cooperation of the Aquaculture Project at the Black Sea on Nov., 1995. (FY1995 Overseas Survey) No additional information.
8.DATE OF S/W 9.CONSULTANT(S) Sanyo Techno Marine, In	1990/11 ne	4.CONDITIONS AND DEVELOPMENT IMPACTS Conditions: Reconstruction of social system Reconstruction of infrastructure Stabilization of economic conditions Development impacts: Satisfaction of the demand for fish protein Enhancement of export on marine product	
No. of Members Period May . 1991-	4 Jun.1992(14 months)		
Total M/M 11.ASSOCIATED AND/O	Japan Field	-	2.MAJOR REASONS FOR PRESENT STATUS The major delayed reason for present status is not finalized the other related fisheries surveys. The Turkish Government have no received loan of International Bank for Reconstruction and Development
SUBCONTRACTED STU Assistance of demersal activities and charter Piri Reis (Dokuz Eylu	tisheries resource survey ed of the R/V k.	5.TECHNICAL TRANSFER	3.PRINCIPAL SOURCE OF INFORMATION
12 EXPENDITURE Total Contracted	179,460 (¥'000)	The same was a supply of the same same same same same same same sam	①, ②, ⑤, ⑥

Compiled Mar. 1995 Revised Mar. 1996

MEA TUR/S 211/93			and the second s	Revised Mar. 1996
I. OUTLINE OF	STUDY	II. SUMMARY OI	F STUDY RESULTS	III. PRESENT STATUS OF STUDIED PROJECT
I.COUNTRY Tur	key	1.SITE OR AREA		1.PRESENT Completed or in Progress Promoting STATUS Completed
2.NAME OF STUDY Motorway Maintenance, Traffic Management Sys		2.PROJECT COST M/P I) (US\$1,000) FS I) 2,451	Local Foreign Cost Cost	Partially Completed Delayed or Suspended Implementing Processing Discontinued or Cancelled
3.SECTOR Transportation/Road 4.REFERENCE NO. 5.TYPE OF STUDY	M/P+F/S	2) 3) 3.CONTENTS OF MAJOR PROJECT(S) Short-term Basic Plan for Maintena	ance and Operation shown as follows : quarters, regional devision offices, main se offices, and extent of activities and	(Description) Establishment of the Organization and Institution Formulation of the organization and institution on the GMM system has being processing for establishment of the offices, facilities and responsibility of each office. Installment of Equipment for CMM System Installment of the equipment such as telemonumunication equipment was partially completed due to the budget constraints. At this
6.COUNTERPART AGENCY General Direcotrate of High	way(KGM), Ministry of	responsibility of each officenumber and type of equipment requ	uired for maintenance and operation	moment, a scheme of foreign loan for purechase of the equipment funded by such as CECF is not considered by the Government of Turkey (FY1995 Domestic Survey)
7.OBJECTIVES OF STUDY -to formulate basic plan of operation and traffic manag-to prepare a short-term in and the operation ranual	maintenance, ement system	-data base and management system documents of road structure and fincidents and maintenance works, depend to operate motorway maintenance.		No additional information. (FY1995 Overseas Survey) The project has been promoted since 1993 with own fund of the Turkish government. The establishment of the Maintenance Centers, the assignment of necessary personnel and facilities, the compilation of manuals concerning the maintenance and operation works and the installation of emergency telephone system have been completed. The further works are scheduled to be done in future.
8 DATE OF SAV	1991/11			
9.CONSULTANT(S) Pacific Consultants Interna Yachiyo Engineering Co., Lt		Imp. Period: 19962010. 4.FEASIBILITY AND Feasibility: 1TS ASSUMPTIONS Yes/No	EIRR1) FIRR1) 9.26 EIRR2) FIRR2) 9.43 EIRR3) FIRR3)	
No. of Members 8 Period Apr. 1992-Jul. 1	1993(16 months)	the facilities for OMM system but construction contracts by KOI(Publ financial burden to KGM.(FIRR=9.2	total toll revenue from 1996, and use all lit or instalted unedr the motorway lic Partnership Fund) without any extra 26%) the additional equipment for traffic	
HASSOCIATED AND/OR	Japan Field 20.14 13.40	management and maintenance operat 2) -KGM will receive 15% of the t inicial investment cost is to be	ions in the system completion. fotal toll revenue from 1996 and the borne by KOL(FIRR≠9.43%) the additional equipment for traffic	2.MAJOR REASONS FOR PRESENT STATUS The expansion of the motorway network has been undertaken in Turkey. Thus, the establishment of the well considered maintenance and operation system was urgently needed.
SURCONTRACTED STUDY Origin and Destination(CD) Study) 12.EXPENDITURE Total	229,090 (¥'000)	traffic management was conducted	for maintenance and operation, and for the counterparts during the whole	3.PRINCIPAL SOURCE OF INFORMATION ①、②、⑥
Contracted 和名 高速道路維持管理·交	213,123 通管理計画調査	study period.		(M/P+F/S)

Compiled Sep.1995 Revised Mar.1996

MEA TUR/S 301/94				ir allanda ar annamining anna a shaka			Revised Mar. 1996
I, OUTLINE	OF STUDY	II. SUMMARY OF	STUDY RE	SULTS	III. PRES	SENT STATUS OF ST	UDIED PROJECT
I.COUNTRY 2.NAME OF STUDY Flood Control, Forect System for Seyhan R	Turkey casting and Warning iver	1.SITE OR AREA The Basin of Seyhan River, Souther 2.PROJECT COST		Local Cost Foreign Cost 1,298 11,970	1.PRESENT STATUS	Completed or in Progress Completed Partially Completed Implementing Processing	Promoting Delayed or Suspended Discontinued or Cancelled
3.SECTOR Fublic Utilities/Urban S 4.REFERENCE NO. 5.TYPE OF STUDY 6.COUNTERPART AGENCY Ministry of Water Contro 7.OBJECTIVES OF STUDY To make the flood contro River more effective	F/S	(US\$1,000) 2) 3) 3.CONTENTS OF MAJOR PROJECT(S) To establish/install:- 1)Hydrological meteorology observation system (alternative 1) 2)Information collecting system 3)Information processing system 4)Dam operating system 5)Control Center 6)Information transmission system	water level Telemetric orainfall Telemetric of temperature Without rader Separately proconsidering Uniform volum flood contor Establish in	ocessing system future works stations ne system is adopted for	high priority	ion. as Survey)	ish government does not give he implementation of the parts to have the experience
8.DATE OF S/V	1992/7	Imp. Period:		ne and and an extensive the restricted described the second security of the second sec	}		
9.CONSULTANI(S) Nippon Koei Co., Ltd.		4.FEASIBILITY AND Feasibility: ITS ASSUMPTIONS Yes	EIRRI) EIRR2) EIRR3)	I.75 FIRRT) FIRR2) FIRR3)			
10.STUDY TEAM No.of Members 9 Period Mar. 1993-0c	t.1994(20 months)	Conditions and Development Impact Expected effects as the economics (1) Reduction of number of staffs (2) Reduction of the disaster by form (3) Effective utilization of water	al privileges) by introduction of lood.	of various systems.			
Total M/M 61,63 HASSOCIATED AND/OR SUBCONTRACTED STUDY	Japan Field 20.50 41.13	•			2.MAJOR REA	ASONS FOR PRESENT STAT	US
12 EXPENDITURE Total Contracted	225, 589 (¥'000)	5.TECHNICAL TRANSFER (i) On the job training for counte (2) Training in Japan	rparts		3.PRINCIPAL	SOURCE OF INFORMATION	

Compiled Mar.1986 Revised Mar.1996

MEA ARE/S 301/81		Revised Mar. 1996
I. OUTLINE OF STUDY	II. SUMMARY OF STUDY RESULTS	III. PRESENT STATUS OF STUDIED PROJECT
I.COUNTRY United Arab Emir 2.NAME OF STUDY Wadi al Bassierah Basin Water Resource Development Project	Wadi Al Bassierah Basin (old name: Wadi Shimal Basin, Fvjeirah Emirate, UAE) 2. PROJECT COST (US\$1,000) 13. 273	1.PRESENT Completed or in Progress Promoting Completed Partially Completed Delayed or Suspended Implementing Processing Discontinued or Cancelled
3.SECTOR Social Infrastructu/Water Resource Developme 4.REFERENCE NO. 5.TYPE OF STUDY F/S 6.COUNTERPART AGENCY Ministry of Agriculture and Pisheries	3) 13,383	(Description) The water resources development project of UAE initially called for a feasibility study. But at the strong request of UAE, the implementation of D/D was added and approved by JICA. Thus, the review of the F/S which had been completed in March 1981 was carried out in parallel with D/D. The name of the project was changed for D/D as the Construction Project of Al Bassierah Dam (or Wadi Shimal Dam). The implementation of the project was suspended due to budgetary constraints. (FY1991 Overseas Survey) In 1989, the UAE government requested the Japanese government to resume the project. In 1990, the UAE government began to resume the dam project with federal budgets. Sanyu consultant was contacted concerning the re-study of the project, because the JICA study was
7.OBJECTIVES OF STUDY Storing flood water in the underground cistern for irrigation and household service	Fruits 40ha	out of data. (FY1995 Domestic Survey) No additional information.
8.DATE OF S/W 1979/12	Imp. Period: 1981.4-1983.6	
9.CONSULTANT(S) Sanyu Consultants Inc.	4.FEASIBILITY AND ITS ASSUMPTIONS Feasibility: EIRR1) FIRR1) FIRR2) FIRR3) FIRR3)	
10.STUDY TEAM No.of Members 11 Period Dec.1979-Dec.1981 (24 months)	Conditions and Development Impacts: Development Impacts: 1) Stable supply of water to the people in the area through the reservation and control of water resources by means of storing transient flood water in a dam to penetrate into the underground farm pond. 2) Prevention of damages from flood and control of water quality in the existing wells (protection from sea water) 3) Improvement of living circumstances by the construction of an about 70 has farm and production of fresh vegetables. -Water for living in the area relies on a sea-water-desalination plant, and the condition for the execution of the project is to produce raw water within the cost of 1.3-6.40H.	
Total M/M Japan Fie		2.MAJOR REASONS FOR PRESENT STATUS
41.27 21.04 20. II.ASSOCIATED AND/OR SUBCONTRACTED STUDY Electrical Exploration of the Underground Water Layers, Core Boring and Topographic Survey at Dam-Site		
Total 240, 115 (YO Contracted 211, 458	No benefit of technical transfer for UAE was found, since most of counter	3.PRINCIPAL SOURCE OF INFORMATION ①、③

Compiled Mar. 1990 Revised Mar. 1996 MEA ARE/S 401/81 I. OUTLINE OF STUDY II. SUMMARY OF STUDY RESULTS III. PRESENT STATUS OF STUDIED PROJECT I.COUNTRY LSITE OR AREA United Arab Emirat LPRESENT Completed or in Progress Promoting dadi Al Bassierah Basin STATUS NAME OF STUDY O Completed Al Bassierah Dam Project O Partially Completed Delayed or Suspended Total Cost Local Cost Foreign Cost PROJECT COST O Implementing 7,191 1) (US\$1,000) Discontinued or Cancelled Processing 2) US\$1=3.6DH 3) (Description) 3.SECTOR 1. After the completion of this D/D, the Government of UAE decided timplement the project by international tender and asked JICA for 3.CONTENTS OF MAJOR PROJECT(S) Social Infrastructu/Water Resource Development additional cooperation on the guidance and evaluation of the tender Bassierah Dam Dam Height 19.5m; Crest Length 900m; Reservoir Cap. 2.5 million cu.m Fay Pond(Ground water Recharge Facilities) and award procedures, which was duly approved and executed. After the completion of D/D, the project was suspended due to financial: 4.REFERÊNCE NO. STYPE OF STUDY D/D 2. UAE sounded in 1989 the intent of the Japanese Government, 6.COUNTERPART AGENCY desiring to revive the project, but received a negative response. .Irrigation Facility and farm Ministry of Agriculture and Fisheries (FY1991 Overseas Survey) In 1990, the UAE government began to resume the dam project with federal budgets. Because the JICA study was undertaken ten years ago, UAE water resource engineers consider it necessary to restudy the groundwater conditions in the proposed site and to update the detailed design. The company which was successful in the tender has inquired the UAE government whether the construction can be done in 7.OBJECTIVES OF STUDY Recharging ground water with flood water for accordance with the original JICA detailed design, and requested the effective use of water resources to irrigation engineering services from Japan. and household service (FY1995 Domestic Survey) No additional information. 1982.11-1983.6 1981/3 8.DATE OF SAV Imp. Period: EIRRI) HIRRI) 9.CONSULTANT(S) 4.FEASIBILITY AND Feasibility: EIRR2) FIRR2) Sanyu Consultants Inc. ITS ASSUMPTIONS Yes/No EIRR3) FIRR3) Conditions and Development Impacts: Development Impacts:
1) Stable supply of water to the people in the area through the reservation and control of water resources by means of string transient flood water in a dam to penetrate into the underground recharge facilities. **10.STUDY TEAM** Prevention of damages from flood and control of water quality in the existing wells (protection from sea water) Improvement of living circumstances by the construction of an about 70 ha-farm and production of fresh vegetables. No.of Members Period Apr. 1981-Feb. 1982 (9.5 months) Total M/M Field Japan, 2.MAJOR REASONS FOR PRESENT STATUS 20.60 14.10 6.50 LASSOCIATED AND/OR SUBCONTRACTED STUDY Seological Survey 5.TECHNICAL TRANSFER 2 EXPENDITURE Transfer of geological investigation method to local consultants.
 Supply of equipment and guidance for electrical investigation technology. 3.PRINCIPAL SOURCE OF INFORMATION 45,279 (¥'000) Total 43,241 Contracted

Compiled Mar.1990 Revised Mar.1996

MEA ARE/A 401/85		Revised Mar. 1996
I. OUTLINE OF STUDY	II. SUMMARY OF STUDY RESULTS	III. PRESENT STATUS OF STUDIED PROJECT
I.COUNTRY United Arab Emirate 2.NAME OF STUDY Mariculture Center	Unum Al Queen, located 50km north of Dubai on the Gulf of Arabia 2.PROJECT COST (US\$1,000) US\$1=203yen Total Cost Local Cost Foreign Cost 996 996	1.PRESENT Completed or in Progress Promoting STATUS Completed Partially Completed Unplementing Processing Discontinued or Cancelled
3.SECTOR Fisheries/Fisheries 4.REFERENCE NO. 5.TYPE OF STUDY D/D 6.COUNTERPART AGENCY Ministry of Agriculture and Fisheries	3) 3.CONTENTS OF MAJOR PROJECT(S) A mariculture center will be constructed in Umm Al Queen to conduct maricultural experiments and training, for the development of the marine industry in the U.A.E. JICA will provide technical training and the U.A.E. will provide construction costs. Facilities will include: Aquarium Filtration Facility Laboratory Work room Bait preparation room and water tank Lodging	(FY1991 Overseas Survey) The Center was completed in May 1984, and has been functioning well in mariculture-related research, training and extension, attracting many visitors from neighboring countries. The research program at the Center has been diverse, covering from mariculture to R & D on sea food processing. The reports of the findings have been widely exchanged with similar institutions in other countries like Japan and Malaysia. The species hatched at the aquarium of the Center have been sent to aquariums in other countries. The administration has a plan to diversify the functions of the Center, including the establishment of an extension facility in Abu Dhabi.
7.OBJECTIVES OF STUDY	Culture ponds(4)	(FY1994 Domestic Survey) No additional information.
8.DATE OF S/W 1980/5 9.CONSULTANT(S) Pacific Consultants International	Imp. Period: 1982.9-1984.5 4.FEASIBILITY AND Feasibility: EIRR1) FIRR1) ITS ASSUMPTIONS Yes/No EIRR3) FIRR3)	
IO.STUDY TEAM No.of Members 6 Period Jul.1980-Dec.1980(5 months)	Conditions and Development Impacts: There is only one marine research center along the Golf of Arabia, in Kuwait, thus the completion of this project will increase interest in the marine industry. Other neighboring countries have plans for similar facilities. By visiting the facility, interest in the marine industry has grown among students in the U.A.E. Japan has strong trade connections with the oil producing U.A.E., and the construction of this center based on Japanese assistance has greatly helped in furthering relationships between the two countries.	
Total M/M Japan Field 20.00 16.00 4.00 ILASSOCIATED AND/OR SUBCONTRACTED STUDY		2.MAJOR REASONS FOR PRESENT STATUS The U.A.E. is located on the Gulf of Arabia and the marine industry is a major internal industry.
12.EXPENDITURE 57,725 (¥'000 Contracted	S.TECHNICAL TRANSFER - Dispatching marine specialists - Accepting trainee (1) JICA	3.PRINCIPAL SOURCE OF INFORMATION ①、③

Compiled Mar.1990 Revised Mar.1996

I. OUTLINE OF STUDY	II. SUMMARY OF STUDY RESULTS	III. PRESENT STATUS OF STUDY RESULTS
1.COUNTRY Yemen 2.NAME OF STUDY Hajjah Province Integrated Rural Development	1.SITE OR AREA Hajjah Province is located at north-west part of Yemen. Its capital, Hajjah city, is 70km away by a straight distance from state capital, Sanaa.	1.PRESENT ☐ In Progress or In Use STATUS ☐ Delayed ☐ Discontinued
3.SECTOR Agriculture/(Agriculture in)General 4.REFERENCE NO. 5.TYPE OF STUDY M/P 6.COUNTERPART AGENCY Central Planning Organization, Ministry of Agriculture, Ministry of Public Works 7.OBJECTIVES OF STUDY	2.PROJECT COST (US\$1,000) US\$1-4.51YR. 2) 3.CONTENTS OF MAJOR PROJECT(S) 1) Simple waterworks: 4 towns and villages 2) Improvement of road network: main road 80km and branch roads 3) Agricultural development: establishment of water observatory network, comprehensive laboratory, and training center of mechanization. 4) Improvement of irrigation: implementation of pilot projects of four districts 5) Improvement of afforestation field 6) Improvement of agricultural social infrastructure: establishment of health and hygiene facilities, and simple medical facilities, improvement of communication and electric power. 7) Others: improvement of organization, training of staffs, etc. 4 The cost is in 1979 prices.	(Description) (FY1991 Overseas Survey) - After the unification of the country, the project was moved to the jurisdiction of the ARDA in the Ministry of Agriculture. - The findings of the study was utilized, when IDA financed the formulation of a master plan for the NORADP (Integrated Agricultural Development Plan for Sana'a, Sadah and Hajjah Provinces) of ARDA. Major components of the master plan are as follows. Simple waterworks Financed by the Arab Fund Road network improv. Irrigation improv. (Pilot Project) Agri. Mechanization Center Financed by IDA Water resource dev. Financed by UNDP (FY1995 Domestic Survey) No additional information.
8.DATE OF S/W 1978/8		
9.CONSULTANT(S) Agricultural Development Consultants Associa	4.CONDITIONS AND DEVELOPMENT IMPACTS Yemen is considered as one of tLDC and MSAC and its GDP per capita is \$220. The effect of these projects is very large to develop those areas which are almost undeveloped and make a living by the income of emigrant laborers in neighboring oil producing countires, and to stabilize social infrastructure.	
No.of Members 22 Period Dec. 1978-Mar. 1980 (16 months)	
	Field 5.87	2.MAJOR REASONS FOR PRESENT STATUS
12.EXPENDITURE 256, 701 (1) Contracted 177, 514	5.TECHNICAL TRANSFER ('000) - Exchange and transfer of knowledge and technology by living and working with counterparts during the study period. - Counterpart training in Japan.	3.PRINCIPAL SOURCE OF INFORMATION ①. ③

MEA YEM/A 101/80

Compiled Mar. 1986 Revised Mar. 1996

MEA YEM/S 303/80				The state of the s			Revised Mar. 1996
I. OUTLINI	E OF STUDY	II. SUMMARY OI	F STUDY I	RESULTS	III. PRES	SENT STATUS OF ST	UDIED PROJECT
1.COUNTRY 2.NAME OF STUDY Rural Water Supply 3.SECTOR Fublic Utilities/Water 4.REFERENCE NO. 5.TYPE OF STUDY		1.SITE OR AREA Hajja(5site), Al-Mahwee(4sites), Stair(10sites) 2.PROJECT COST (US\$1,000) 1) 2) 3) 3.CONTENTS OF MAJOR PROJECT(S) Deep well construction Submersible pumps Water storage tanks Fipeline Total:	Total Cost 18,140 60m-300m 19kw-30kw 948ton-10ton	Local Cost Foreign Cost 26 sites 26 sites 26 sites	1981 Nov. E/N 1982 Jun. E/N 1983 Jul. E/N 1985 Mar. D/D 1986 Oct1987	Mar. A basic design study supply development	Delayed or Suspended Discontinued or Cancelled grant as follows. on rural water implemented.
6.COUNTERPART AGENC Rural Water Supply Dep Works 7.OBJECTIVES OF STUDY Rydrology Bydrzulics Geology	ertment, Ministry of Public				1987 Apr. Gra 1987 Jul. E/N 1988 Sep. E/N (FY1991 Overs Of 26 locati helped implement	8 Feb. D/D and S/V implement E/N (319 million yen) (915 million yen) (916 million yen) eas Survey) ons proposed by the present the project at 14 locations of the basic design.	
8.DATE OF SAV	1978/12	Imp. Period: 1982.1]		
9.CONSULTANT(S) Pacific Consultants In	nternational	4.FEASIBILITY AND Feasibility: 1TS ASSUMPTIONS Yes	EIRR1) EIRR2) EIRR3)	FIRRI) FIRR2) FIRR3)			
No. of Members Period Sep. 1979-1	8 May.1980(8 months)	Conditions and Development Impa Point-source plan using groundwat Yemen) where construction of rural Design standards were based on wa provided by the Ministry of Publi This project is expected to lower domestic consumption costs 0.32-0. 401 per capita per day consumption be 0.03-0.877R per capita per day	er was formul l water supply ter consumption c Works. r price of wal 12YR per capi	facilities was urgent. on of 401/cap/day as ter. Clean water for ta per day on the basis of water with the project would			
Total M/M 39.60 HASSOCIATED AND/OR SUBCONTRACTED STU					1)Great appre 3rd rural wat a high priori	ASONS FOR PRESENT STATe clation from residents where er supply project is expect ty in desert areas., and 41 strong within the Ministry	water was supplied, 2)The ed, 3)Rural water supply has Counterpart agency is
12 EXPENDITURE Total	109,604 (¥'000) 98,313	5.TECHNICAL TRANSFER 1)OJT is effective but careful se should be short-term due to quite poorly prepared to participate in consultants, and 5)Donation of equ	different li point report	wing conditions; 3) They are writing, 4) Use of local	3.PRINCIPAL	SOURCE OF INFORMATION	N

Compiled Mar. 1986
Revised Mar. 1996
STUDIED PROJECT

I. OUTLINE OF STUDY		II. SUMMARY OF STUDY RESULTS	III. PRESENT STATUS OF STUDIED PROJECT		
I.COUNTRY 2.NAME OF STUDY 7th Berth Construct Port of Hodeidah	Yemen	Description Port of Hedeldah		I.PRESENT Completed or in Progress Promoting O Completed Partially Completed Delayed or Suspended Implementing O Processing Discontinued or Cancelled	
3.SECTOR Transportation/Port 4.REFERENCE NO. 5.TYPE OF STUDY 6.COUNTERPART AGENCY Ministry of Public Work 7.OBJECTIVES OF STUDY Formulation of M/P and	is .	3) 121,854 53,603 3.CONTENTS OF MAJOR PROJECT(S) - Short-term Plan Phase 1 (urgent plan): container berth(7th Berth) 1 berth(depth -10m, extension reclamation 271,000 cu.m, pavement 31,000 sq.m dredging 85,000cu.m, road 850m, container crane 1 unit building 1 unit, Total number of container handled 75, Niddle-term Plan by 1993 1)General Cargo Berth(-10m,200m) 2)Container wharf(-1 3)Channel(-12m, 200m wide) - Long-term Plan by 2000 Additionally 1)General Cargo Berth(ditto) 2 2)Container wharf(ditt 3)Channel(ditto) The project cost 1),2)and 3)above are for the short-term middle-term plan and for the Long-term plan.	250m) 000TEU 2m,250m)	(Description) (FY1991 Overseas Survey) Nov. 1988 OECF loan (L/A 8.2 billion yen) The OECF loan (unded the short-term development plan, but with substantial changes in project components, as shown below. F/S Construction Container berth 250m Dredging channels 4.72 milion cu.m RO/RO berth lunit Reclamation 1889,000cu.m Reclamation 271,000cu.m kharf (Perth 7) 295m Dredging 85,000cu.m Paving (apron, yard) 89,000m Paving 31,000m Shed, Substation 2,526cu.m Road 850m Survice facilities 1set Container Crane lunit (electricity, lighting, water supply 6 drainage) Building lunit Cargo handling equip. 1set The Government of Yemen is currently deliberating whether the implementation proceeds to the middle-term development plan of	
8.DATE OF SAV	1981/10	Imp. Period: 19821986.		Hodeldah Port as envisaged by the study, or the construction of a new port at Sarif should be given precedence. (FY1994 Domestic Survey)(FY1995 Domestic Survey) No additional information.	
9.CONSULTANT(S) Overseas Coastal Area t Kiso-Jihan Consultants	-	ITS ASSUMPTIONS PERSONNEL EIRR2)	1RR1) 7.70 IRR2) IRR3)		
10.STUDY TEAM No.of Members 6 Period Nov.1981-M	ar.1982(3 months)	Cargo volume is estimated at 2.57 million tons (1986) and tons (2000). The project life of 25 years is assumed. In the benefits, an evaluation was made concerning reduction of strosts. [Development Impacts] 1)Alleviation of the port congestion expected in the future 2)Modernization of shipping sector through containerization Sea Coast.	erms of economic hip waiting		
Total M/M 60.73 11.ASSOCIATED AND/OR SUBCONTRACTED STUD	Japan Field 41.51 19.22	3)Encouragement of regional development in the vicinity of 4)Increase demand for related industries. 5)An increase in employment through continuation of port		2.MAJOR REASONS FOR PRESENT STATUS The details of the project was changed because of the earthquake in Dec. 1982 and the stagnation of petroleum industries in the neighboring pil-exporting countries.	
12.EXPENDITURE Total Contracted	164,390 (¥'000) 151,107	5.TECHNICAL TRANSFER - Counterpart training in Japan - Seminar and OUT		3.PRINCIPAL SOURCE OF INFORMATION ①, ③, ④	

MEA YEM/S 301/81

Compiled Mar.1988 Revised Mar.1996

MEA YEM/S 302/84		·						Revised Mar.1996
I. OUTLINE	OF STUDY	II. SUMMARY O	F STUDY RES	ULTS		III. PRES	SENT STATUS OF ST	UDIED PROJECT
I.COUNTRY 2.NAME OF STUDY Rural Telecommunica	Yemen tions Network	1.SITE OR AREA Sana'a, Chamar, Ibb, Taizz, Huday		ocal Cost For	eign Cost	1.PRESENT STATUS	Completed or in Progress Completed Partially Completed	Promoting Delayed or Suspended
		(US\$1,000) 1) 2)	32,964	7.848	25,116		O Implementing O Processing	Discontinued or Cancelled
3.SECTOR Communications & B/Tele 4.REFERENCE NO. 5.TYPE OF STUDY 6.COUNTERPART AGENCY Ministry of Communication Meadquarters (PTC) 7.OBJECTIVES OF STUDY Feasibility study on run network	F/S on and Transport (MOC), as Corporation	3) 3.CONTENTS OF MAJOR PROJECT(S) 1)Contents a) Composed of 6 sub-rural netwo b) Digital Radio Concentrator Sy sub-rural network c) Provision of subscriber lines network in the existing swite of sub-rural network 2)Facilities - Base station; 6 sites (2) bas - Repeater station; 18 sites (5 - Subscriber station; 436 sites	stem (DRCS) to each of each sub-rural ch or line concentre se units)	1		changed as fo Base stations Repeater Sts. Subscriber Sts	of the basic design, the prillows. F/S Fasic Design 5 38 32 436 Phase 1 100 (S 18 (D 20 Phase 2 20 (1) 20 (T 20 (F)	gn Sana'a) Shamar) hb) 'aizz) fudaydah) Sana'a)
		Inn. Pariod. 19851989.				Completion Ministry of	Nar. 91 Mar. 92 Comm. and Transport has required construction of 159 addition	ested in Oct.1991 a Japanes
9.CONSULTANT(S) Nippon Telecommunication	1984/6 n Consulting Co., Ltd.	Imp. Period: 19851989. 4.FEASIBILITY AND Feasibility: Yes	EIRRI) 11.9 EIRR2) EIRR3)	FIRR1) FIRR2) FIRR3)	7,43		satelite stations in the eas	
		Conditions and Development Important The proposed study will facilitational areas, and benefit administ facilities and agricultural productions.	ate smooth communication, medical and	ition between i d educational	arban and			
No.of Members 12 Period Aug. 1984-Ma	r.1985(7 months)							
Total M/M 39.94 11.ASSOCIATED AND/OR SUBCONTRACTED STUDY	Japan Field 18.34 21.60					2.MAJOR REA	ASONS FOR PRESENT STATU	JS
12 EXPENDITURE Total Contracted	115,983 (¥ 000) 103,482	5.TECHNICAL TRANSIER 1)Acceptance of a trainee; one contraining was conducted for the parties of the Job Training for counter	roject concerned.	invited to Ja	apan, and	3.PRINCIPAL ①、③	SOURCE OF INFORMATION	

Compiled Mar.1990 Revised Mar.1996

MEA YEM/S 101/88			Revised Mar.1996		
I. OUTLINE OF STUDY		II. SUMMARY OF STUDY RESULTS	III. PRESENT STATUS OF STUDY RESULTS		
1.COUNTRY 2.NAME OF STUDY	Yerren	1.SITE OR AREA Sana'a, Taizz, Hudayda	LPRESENT In Progress or In Use STATUS Delayed		
Urban Transport S	tudy	2.PROJECT COST Total Cost Local Cost Foreign	Cost (Description)		
1 CECTOD			7,388 (FY1991 Overseas Survey) The Government of Yemen (GOY) requested funding from the World Bank and Japan (grant aid)		
3.SECTOR Transportation/Urban	Transportaion	3.CONTENTS OF MAJOR PROJECT(S)	- The Japanese grant was not approved because of the low priority of the project. (FY1991 Overseas Survey)		
4.REFERENCE NO. 5.TYPE OF STUDY M/P		Improvement of interchanges Expansion and replacement of the signal system Construction of fences, sign boards, etc.	- A JICA expert was assigned from March 1990 to March 1992 The following projects were implemented in Sana's City. Interchange improvement 1DA fund(1990)		
6.COUNTERPART AGEN		10	Fences, sign boards, etc. Own fund Haintenance of signals Germany [purchase of maintenance vehicles] - No action has been taken in Taizz and Hudayda.		
			(FY1994 Domestic Survey)(FY1995 Domestic Survey) No additional information.		
7.OBJECTIVES OF STUD Formulation of a short transport development	t-term plan for urban				
8.DATE OF S/W	1987/6				
9.CONSULTANT(S) Pacific Consultants In Yachiyo Engineering Co		4.CONDITIONS AND DEVELOPMENT IMPACTS 1) Smooth ordering of urban traffic 2) Efficient use of urban roads 3) Reduction of traffic accidents			
		Signals and lane marking will smoothen traffic flows. Parking sites give much road surface to traffic movement. Pedestrian bridges and crossing marks will also reduce traffic accidents and increase flows traffic on roads.	s will of		
No.of Members	9 Nov.1988(13 months)				
Territor Occ. 1507	NOV.1900(19 ROHells)				
Total M/M	Japan Piet		2.MAJOR REASONS FOR PRESENT STATUS		
51.20 II ASSOCIATED AND/OI SUBCONTRACTED STU Traffic Survey	•				
12 EXPENDITURE Total Contracted		5.TECHNICAL TRANSPER Acceptance of a trainee (JICA counterpart training program)	3.PRINCIPAL SOURCE OF INFORMATION ①、③		

Compiled Mar.1991 Revised Mar.1996

MEA YEM/S 201B/89				Revised Mar. 1930		
I. OUTLINE OF STUDY		II. SUMMARY OF STUDY RESULTS	III. PRESENT STATUS OF	III. PRESENT STATUS OF STUDIED PROJECT		
I.COUNTRY 2.NAMEOFSTUDY Improvement of Ma'a Sewerage System in	Yemen lla and Tawahi Aden	I.SITE OR AREA Ma'alla, Tawahi, Crater and Khormaksar Districts in Aden. Area: 2 Population: 151,602 (1988) M/P> Ma'alla and Tawahi Districts in Aden. Area: 465 ha, Fopulation: 2.PROJECT COST MP1) 70,287 Local 9,805 Foreign (US\$1,000) Cost Cost (US\$1,000) F/S 1) 39,808 4,648	1.PRESENT STATUS Completed or in Programme Completed STATUS Partially Completed On Implementing Processing			
3.SECTOR Public Utilities/Sewera- 4.REFERENCE NO. 5.TYPE OF STUDY 6.COUNTERPART AGENCY General Directorate for Aden Municipality) 7.OBJECTIVES OF STUDY	M/P+F/S Local Government (0 & M	2) 3) 3.CONTENTS OF MAJOR PROJECT(S) (M/P>(target year: 2010">(target year: 2010 , service population: 186,000) Construction of 4 major pumping stations (Ma'alla, Tawahi, Crater khormaksar). Construction of force mains (dia, 400/700mm, total 1 2)km) connecting these pumping stations to the treatment plant. Construction of a treatment plant (oxidation pond process, capacid 48,800 cu.m./d). Construction of sewer pipes, total length 3km. Fehabilitation of 20 existing pumping stations. Improvement of sweeper-passages (open channel sewerage) into ordinary sewerage at 131 locations. (f/S)(target year: 2000) Construction of gravity sewers, dia, 200-600 mm, length 2,534m, rehabilitation of the four small pumping stations and improvement accounts and the two districts. Constructions are construction of the four small pumping stations and improvement accounts.	aid for the implementation of the probillion yen). The Japanese Government that it would be difficult to fund the program. (FY1994 Domestic Survey) Because of the prolonged political Gulf War and unification of North and civil war in 1994, no information on project is available.	aa City rather than for the hormaksar) in March 1991 Japanese grant ect (US\$24 million or 3.1 notified the PDRY Government project from the grant aid turmoil since 1991, such as the South Yemen in 1991, and the		
	1988/7	of a sewage treatment plant, stabilization pond, capacity 16,300 c two pumping stations and force mains, dia, 400-700 mm, length 13,0	U.M/U. Irviggs Domestic Survey			
		Imp. Period: 19901994. 4.FEASIBILITY AND ITS ASSUMPTIONS				
No.of Members 10 Period Nov. 1988-Ja	0 an.1990(15 months)	Conditions and Development Impacts: Planning Conditions: I) In M/P, planned service population and sewage volume(cu.m/day) in 2010 are: Fop Household Other Total sewage sewage sewage Ra'alla 68,000 12,240 1,224 13.4				
Total M/M 67.56 HASSOCIATED AND/OR SUBCONTRACTED STUD	1	Tawahi 20,000 3,600 1,312 6,9 Crater 77,000 13,860 774 14,6 Khormaksar 21,000 3,780 9,979 13,7	2.MAJOR REASONS FOR PRESENT ST	ATUS		
12 EXPENDITURE Total Contracted	(¥'000) 227,703	S.TECHNICAL TRANSFER Advice to water quality analysts about the existing sewage treatment in Aden. Provision of training in Japan to two counterpart person the General Directorate for Local Government and the Aden Municipal	13 I I COM (1) (2)	ION		
	区・タワヒ地区下水道施設改	容計画		{M/P+F/S}		

