

La Secretaria de Relaciones Exteriores saluda Muy atentamente a la Embajada del Japon y tiene el honor de referirse a su anterior Nota numero CTI.- 900989 de fecha 18 de diciembre pasado, acerca de los estudios que la Coordinacion General del Programa de Puertos Industriales de la Presidencia de la Republica, ha iniciado para los nuevos pretics industriales de Tuxpan, Topolobambo y Ensenada.

Al respecto, la Secretaria se permite comunicar a la Embajada que la citada Coordinacion General solicita se sustituyan los anteriores terminos de referencia por los que se anexan, en virtud de que en forma breve se han desarrollado los puntos 1. Introduccion y 2. Antecedentes de los terminos de referencia, y la aclaracion pertinente de que, a traves del equipo de estudio de la Agencia de Cooperacion Internacional del Japon, se ha recibido la cooperacion tecnica del Gobierno Japones para el desarrollo de los proyectos de cuatro puertos industriales en las areas de Altamira, Tamps., Ostion Ver., Lazaro Cardenas, Mich., y Salina Cruz, Oax., asi como O.C.D.I., del Japon en el proyecto de la terminal de usos multiples de los puertos mencionados.

Asimismo, la Secretaria comunica a la Embajada que ademas de la anterior, dicha Coordinacion General necesita la cooperacion tecnica del Gobierno japones para la planeacion del proyecto y la realizacion del estudio de factibilidad para el puerto industrial de Tuxpan, Ver., conforme a la documentacion adjunta: Terms of reference for the feasibility study on Tuxpan Port.

La Secretaria se permite comunicar lo anterior a la Embajada, en el entendido de que ha girado instrucciones a la Representacion diplomatica de Mexico en Tokyo, a fin de que informe el asunto de que se trata a las autoridades japonesas competentes.

La Secretaria de Relaciones Exteriores aprovecha la oportunidad para reiterar a la Embajada del Japon las seguridades de su mas alta consideracion.

Tlatelolco, D.F., 15 de enero de 1982.

## 1. INTRODUCTION

The State of Veracruz is located on the eastern of the Country, between the mountain range Sierra Madre Oriental and the Mexico's Gulf, with a sea coast of about 800 km length. It's limited by the parallels 17°07' and 22°28' north latitude and the meridians 93°40' west longitude and borders with the following States: to the north with Tamaulipas; to the west with San Luis Potosi, Hidalgo and Puebla; to the south-west and south with Oaxaca; to the south with Oaxaca; to the south-east with Chiapas and Tabasco and to the east with the Gulf of Mexico.

In this big and rich State, we find the highest mountain in Mexico El Pico de Orizaba with 5,700 m. The main rivers are Coatzacoalcos, Papaloapan, Blanco and San Juan. The weather in the coast is rainy and tropical and in the mountain range wet and moderate.

The actual population is about 5,300,000 inhabitants from which 50% lives from farming activities 20% of industries and 25% of services.

In the agricultural production are relevant: the sugar-cane, the avocado, coffee, beans, corn, rice, acids and tobacco.

The principal industries are: oil and they derivatives, petro-chemist and basic chemist, steel, textile, paper manufactured, sugar, beer and derivatives from tobacco, cement, glass and vessel construction.

The principal cities are: Jalapa the Capital of the State, Veracruz the first port of Mexico, Poza Rica, Orizaba, Cordoba, Coatzacoalcos, Tuxpan and Alvarado.

## 2. BACKGROUND

Mexican Government has established, like one of the central points of its social-economic policy, the decentralization; looking for the equal development of the Country. Into this policy, have been pointed out the directions of the growth, to create new activities areas, in fact of giving a solution to the actual industry and population concentration, specially in the three biggest Cities (Mexico City, Monte-

rrey and Guadalajara) all of them are located in the High Lands of the Country.

The National urban and industrial development Plants, like the General Master Plan, pointed the principal actions to aid the establishment of the industry in these new zones that have increased population.

All these elements pushed the foundation of the Industrial Port programs, that originally considered four ports: Laguna del Ostion in Coazacoalcos, Altamira in Tamaulipas, Lazaro Cardenas in Michoacan and Salina Cruz in Oaxaca.

The attainment of more land made by the industry as well as the infrastructure needed for the following 30 years in maritime and land transportation and the big perspective that the new ports signify for the economic integration, especially in the Gulf of Mexico; shown the necessity to look for other places where can be located the Industrial Ports.

The north part of Veracruz have this situation; national resources, possibility of communication and integration to the national maritime transportation, where Tuxpan have been selected to study the possibility of located a new Industrial Port.

For that reason it is convenient to ask the Government of Japan its collaboration and participation in the Tecnical and Economical Feability Study of the Industrial Port of Tuxpan, Veracruz, in accordance with the following objectives and terms of reference.

### 3. OBJECTIVES.

The objectives of the feasibility study shall be as follows:

- 3-1. To carry out all the necessary economic, social, technical and engineering evaluations in order to be able to:
  - a. Examine proper role of the Port of Tuxpan
  - b. Establish the commodities and their quantities likely to be handled through the port over a 10 (ten) year time period.

- c. Determine type and number of vessels likely to use the port.
  - d. Recommend which facilities shall be provided.
  - e. Identify the most suitable site of port facilities, and draw and arrangement plan.
  - f. Consider the relation among neighbouring ports.
  - g. Forecast the demands for tourism around the coastal area of the Port of Tuxpan.
- 3-2. To assist the Mexican Government for all necessary implementation of soil investigations, meteorological surveys and topographical surveys and supervision of these works.
  - 3-3. To carry out all necessary hydrographic investigations such as the observation of wave, tide and current and sounding surveys.
  - 3-4. To decide the design criteria through the analyses of above mentioned studies.
  - 3-5. To carry out preliminary designs and cost estimations for the recommended port facilities.
  - 3-6. To estimate economic and social benefit of proposed port facilities.
  - 3-7. To prepare detailed annual financial forecasts for the port management body for the first fifteen years after completion of construction.
  - 3-8. To recommend the type of organization which should manage the port.
  - 3-9. To formulate a schedule of further works such as detailed design, preparation for tender, construction, training of staff etc.

#### 4. SCOPE OF CONSULTING SERVICES

##### 4-1. General

- a. The scope of consulting services given in this section of the Terms of Reference has been grouped into sub-sections for reason of clarification.

This grouping does not reflect any consulting service order or order of importance or priority.

- b. The consultant shall not limit his study and investigation to what is outlined bellow but he shall at least undertake what is described.

##### 4-2. Engineering and technical investigations and surveys

Since no detailed study of the coastal phenomena has been done and available data are much limited, the Consultant shall carry out:

- a. Wave observation
- b. Tidal current observation
- c. Tidal observation
- d. Sounding survey
- e. Brief survey of littoral drift
- f. Analysis of meteorological data

Furthermore, the Consultant shall carry out the all necessary preparations and supervision, in cooperation with the Mexican Government, for the implementation of soil surveys, topographical surveys and meteorological surveys (including data collection).

##### 4-3. Transportation analysis

The Consultant shall study all existing materials pertinent to the need of a port in the State of Veracruz.

He shall:

- a. Forecast annual traffic tonnages by commodity for 1983 and 2000
- b. Forecast shipping conditions (shipping pattern, distributing ships, etc.)
- c. Cargo shift from land through ports of USA to ports of Mexico.
- d. Examine the optimal land transport route between port and inland developed areas.
- e. Forecast the annual landing of fish catch at the new port and possible effects on landings elsewhere on the coast.

4-4. Analysis on the demands for a marina

The Consultant shall study all possible demands for marina accomodating yachts and boats for a 20 years period.

Forecasting of needs shall be undertaken by the means of market research. The factors concerning this purpose might be the economic and social improvement, namely, the growth of national income, increasing of free time, enlargement of interest for the health and marine sports etc. Upon the analysis of the demands, the Consultant shall map out the comprehensive land use plan of the coastal area attractive for the tourists.

4-5. Technical examination

Based on the technical findings and forecasted demands for port, the Consultant shall study:

- a. Which type of vessels will be used the port.
- b. The layout plan of port facilities. In the commercial port zone, the location and site of wharves, quays, jetties, groins, breakwaters, channles, basins, navigational aids, godowns, roads, railway and other required facilities should be mentioned. In the fishing port zone, facilities for refrigeration and processing of fish shall be needed in

addition to the general port facilities. In the marina zone, additional facilities shall be the slipways and/or landing marchines, clubhouse etc.

- c. The suitable structure based upon preliminary design.
- d. The land use plan for coastal tourism facilities adjacent to the port area.
- e. The measures of preserving excellent environment.
- f. Project cost estimation.

#### 4-6. Financial, economic and social analysis

The Consultant shall carry out three kinds of cost benefit analysis: financial analysis, economic analysis and social analysis.

In the financial analysis, all expense and revenue shall be calculated using market or financial price, and financial ratios introduced by estimate financial statements and a financial rate of return (FRR) shall be calculated.

In the economic and social analysis, all of countable costs and benefits shall be calculated using market or shadow price. Both the net present value (NPV) and an internal rate of return (IRR) shall be calculated.

#### 4-7. Recommendations

Based on the technical, financial and economic analysis, the Consultant shall evaluate whether or not port development is feasible. Should the port be considered feasible on all grounds or feasible on technical and economic and social grounds, but not on financial ground, measures to secure project viability shall proposed.

Should port development be considered feasible on technical, financial and economic and social grounds, the Consultant shall:

- a. Recommend the most feasible port facility for the Port of Tuxpan.
- b. Formulate a schedule for detailed design, preparation of tender and construction.
- c. Recommend further studies, surveys and other actions which shall precede the commissioning of the engineering services.
- d. Recommend the type of organization which should control and manage the port, e.g. the reinforcement of Harbour Master's Office, establishment of management bodies on fishing port and marina respectively, etc.



## QUESTIONNAIRES

April, 1982

Japanese Preliminary Survey Team on the Development  
Project of the Industrial Port of Tuxpan in the  
United Mexican States

Japan International Cooperation Agency

Detailed data, informations and materials on the following items are required during the visit of the study team coming to the United States of Mexico.

The preliminary survey team would like to know, which data, informations and materials are available in your country.

Would you fill the appendix form and submit us some essential ones which are marked like ( \* ) during our stay in the United States of Mexico

## I. Social / Economic Data

### 1. Present Situation and Forecasting

- \* (1) Annual report/yearbook/statistics on national and regional economy and economic indicators, such as (a) GNP, (b) consumption, (c) population, (d) outputs of agriculture, (e) mining products, (f) manufacturing products, (g) transportation activities (commodity flow, modal split of passenger and cargo traffic, traffic volumes and number of vehicles and rolling stocks).  
We want the national, regional data of the latest five years.
- \* (2) Materials of latest national/regional economic development plans/programs
  - (a) Investment schedule relating to the industrial development (including energy, mining, etc.)
  - (b) Development programs of transportation facilities (road, railways, ports, etc.)

### 2. Other Reports / Publications / Maps

- (a) Maps / Marine Charts of the United States of Mexico
- (b) Studies / Reports on Ports / Transportation so far carried out
- (c) Port Traffic, Port management system and Port Regulations
- (d) Ports development plan

3. Population forcecast in each region, and industrial and mining development program and its location proposed.

No.	Type of Industries	Production Scale	Year in Operation	Name of the site
		MT/y		

(and please point out on the map)

## II. Data / Information of major Ports

(Altamira, Ostion, Lazaro Cardenas, Salina Cruz, Tuxpan, Topolobampo, Ensenada )

### 1. Existing port facilities

- \* {
  - (1) Maps
    - 1) Layout of existing port facilities
    - 2) Port plans in future
  - (2) Natural condition
    - 1) Meteorogical conditions
    - 2) Hydrographical conditions
    - 3) Geographical conditions
    - 4) Other caracteristic items
  - (3) Latest data of accomodations
    - 1) Depth, width and length of channels and basins
    - 2) Depth, length and construction year of each berth
    - 3) Area and informations about transit sheds, ware-house and open storage areas.

- 4) Type, capacity and manufacturing year of cargo handling equipment.
- 5) Type capacity and some other major information of port facilities not mentioned above.

## 2. Port tariff

## 3. Port activities

### (1) Hinterland

### (2) Cargo traffic ( annual data for recent five years )

- 1) Cargo traffic by export/import by main routes and by commodity
- 2) Cargo traffic by inward/outward (domestic) by commodity
- 3) Cargo traffic by commodity and by berth
- 4) Cargo traffic between ports and their hinterlands, by mode and by commodity.
- 5) Containerized cargo traffic by export and import and by commodity, if any

### (3) Ship arrivals (for recent five years)

Number by ship tonnage, by ship type, and by berth

### (4) Port Congestion (for recent five years)

- 1) Average waiting time of ships
- 2) Working/Berthing time of ships
- 3) Total stay period of ships
- 4) Rate of berth occupancy of berth

### (5) Existing and Expected port operation system

### (6) Activities of located industries

- 1) Type of industries
- 2) Production scale
- 3) Freight data (if possible, by commodity)

(7) Activities of located minings

- 1) Type of minings
- 2) Production scale
- 3) Freight data

III. Data/Information of Port of Toxpan (excluding the data mentioned above)

1. Existing port facilities

- (1) Layout and latest data of existing navigation aid facilities, communication system and utility facilities
- (2) Structure of existing port facilities, communication system and utility facilities

\* 2. Containerization

- 1) Cargo handling system (equipment, storage area)
- 2) Cargo traffic by sea route and by commodity (for recent five years)
- 3) Type of ships used for container transportation
- 4) Forecast of containerization in Mexico

\* 3. Natural conditions

- 1) Surveys for natural conditions so far carried out.
- 2) Data of the natural conditions mentioned below

List of the necessary information on the natural conditions

1. Meteorological conditions

- i) Wind statistics
- ii) Records of strong wind
- iii) Statistics of meteorological conditions such as rain fall, fog, atmospheric temperature
- iv) Weather maps of anomalous weather condition

## 2. Hydrographical conditions

- i) Wave statistic
- ii) Record of big waves
- iii) Tidal level statistics
- iv) Records of anomalous tidal level such as storm tide
- v) Current speed
- vi) Littoral drift (including variation of coastal topography, grainsize distribution of castal material)
- vii) Records of large tsumai

## 3. Geographical conditions

- i) Topographical map
- ii) Marine chart
- iii) Aerial photograph
- iv) Chart of sounding survey
- v) Records of large earthquakes

## 4. Other characteristic items

- 3) Name of comparies which can carry out the above-mentioned natural condition surveys in the United States of Mexico

## 4. Surrounding conditions

- 1) City plan or Land use plan in the vicinity of Port of Toxpan
- 2) Fishery activities and fishery right at Port of Toxpan and its vicinity
- 3) Environmental factors to be considered
- 4) Data/Information of port administration and port operation
- \*a) Organization, function and the number of personnels in each section concerning Port of Toxpan

- b) Annual budget (income and expenditure) for recent five years  
(including subsidy from the government, if any)
- \* c) Relating government offices and relating enterprises
- d) Procedures to use port
- e) Map of port district, port limits and area of Port of To pan

5. Construction of port facilities

- 1) The method of construction, cost estimation in the United States of Mexico
- 2) Materials for construction of port facilities. (stones, sand, cement, fuel, etc.)
  - a) Supplying conditions of materials
  - b) Cost of materials
  - c) Authorized standards of materials
- 3) Labor conditions of port construction
  - a) Supply and demand condition of construction labors in the vicinity of Port of Toxpan
  - b) Wages of construction labors in the vicinity of Port of Toxpan
- 4) Construction machinery
  - a) Type, capacity and number of working crafts such as dredgers dredgers in Gulf of the Mexico
  - b) Type, capacity, number and rental cost of construction machinery such as bulldozers in the vicinity of Port of Toxpan
- 5) Recent example of the cost for construction of port facilities in the vicinity, if any

#### IV. Shipping

1. The present and expected composition of national merchant fleet by ship size, ship type and ship age
2. Do shipping agents or consigners/consignees have any dissatisfaction with the present cargo transportation system?

#### V. Roads

##### 1. Existing road facilities

###### \* 1) Maps

###### 2) Latest data of accommodations

- a) Width, length, permissible weight, rate of pavement and construction year of each route
- b) Sites, capacities, managers and construction year of freight truck terminals
- c) Type, capacities and some other major informations of road facilities not mentioned above
- d) Time to carry freight by each route

###### 3) Freight data

Type and volume of freight carried, by each route

###### 4) List of charges

##### 2. Others

Would you submit us any other informations for roads and truck terminals?

#### VI. Railroads

##### 1. Existing railroads facilities

###### \* 1) Maps



- 2) Latest data of accomodations
  - a) Capacity and construction year of each route
  - b) Time to carry freight, by each route
- 3) Freight data
  - Types and volume of freight carried, by each route
- 4) List of charges

2. Others

Would you submit us any other informations for railroads?

VII. Fishing (species)

- 1) Landing of fish catch at ports (for recent five years)
- 2) Location of fishing activity in the United States of Mexico
- 3) Relation of (1) and (2)
- 4) Processing of fish in the United States of Mexico  
(for recent five years)
- 5) Consumption of fish in regions (ditto)
- 6) Export/import of fish in the United States of Mexico (ditto)
- 7) Number of fishermen at ports
- 8) Resources of fish in the United States of Mexico
- 9) Size, type, number and age of fishing boats at port
- 10) Location of fishermen's house at the Port of Tuxpan

VIII. Coastal leisure activities

- 1) Beach for bathing and any other coastal leisures
- 2) Site seeing places
- 3) Size, type, number and age of pleasure boats and yachts
- 4) Capacity, number and cost of hotels
- 5) Number of souvenir shops

- 6) Number of touring business
- 7) Number of employee in relevant businesses
- 8) Origin, number, sex, and generation of visiting tourists  
(for recent five years)
- 9) Attractive forces for tourists

IX. Annex to natural conditions

1. Geographical conditions
  - 1) Soil investigations
  - 2) Geological map
2. River conditions
  - 1) Discharge
  - 2) Water level
  - 3) Water examination data
  - 4) Rate of sediment transport
  - 5) Longitudinal section
  - 6) Section

# APPENDIX

Title : Writer (Name of the authority):

NO.	ITEM	TITLE OF DATA/INFORMATION	FORM (book/map)	SOURCE	LANGUAGE	AVAILABLE OR NOT AND WHERE

Note: Please fill this form in English.

3. 面会者リスト

1) 日本人関係者

Embassy of Japan

Mr. Shimada

First Secretary

JICA Mexico Office

Mr. Nobutetsu Enoshita

Resident Representative

Miss Chizuko Ohyama

Staff

JICA Experts to SCT

Mr. Hiraku Moriguchi

Mr. Noriyuki Mochizuki

2) 相手国関係者

(Mexico City)

SCT

Ing. Jose Juan Velarde Bonnin

Subsecretario, Sub-secretaria de  
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Director-General, de Obras Maritimas  
Subsecretaria de Puertos y Marina  
Mercante

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CPI

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Ing. Francisco Rodriguez Tapia  
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Senior Engineer

Consultoria Tecnica

Ing. Eduardo Saucedo Duenas  
Sefe del Proyecto Tuxpan

Ing. Fidel Serrano Lozano  
Residente de los Trabosjos en Tuxpan

(Tampico, Tuxpan)

Ing. Luis Gonzalez Ponce  
Representante de C.G.P.P.I. en Tampico - Altamira

Lic. Manuel Rojas Aleman  
Funcionario Auxiliar de C.G.P.P.I. en Tampico -  
Altamira

Ing. Juan Piza Sanchez  
Residente de Obras Del Puerto Tuxpan

番号	資 料 の 名 称	形 態	版 型	頁 数	原本 複写	部 数	収 集 先	又 は 発 行 機 関
1	PUERTOS INDUSTRIALES PROYECTO; LAZARO CARDENAS	Map			複	1	SCT	
2	" ; SALINA CRUZ	"			"	"	"	
3	" ; ALTAMIRA	"			"	"	"	
4	" ' OSTION	"			"	"	"	
5	D.I.M. ALTAMIRA, TAMPS. METAS FISICAS	"			"	"	"	
6	TUXPAN VERACRUZ	Paper	A-4		原	3	"	
7	PLANO GENERAL DEL PUERTO DE TUXPAN, VER.	Map			複	2	"	
8	TUXPAN, VERACRUZ, ESTUDIO PUERTO INDUSTRIAL BATIMETRIA GENERAL (H-1-6-DE-6)	"		6 葉	"	1	"	
9	CRONOGRAMA ESTUDIOS FISICOS Y EXPERIMENTALES PARA EL PUERTO INDUSTRIAL DE TUXPAN, VER.	"			"	"	"	
10	TUXPAN VERACRUZ, ESTUDIO PUERTO INDUSTRIAL PLANO FOTOGEOLOGICO DEL AREA EN ESTUDIO	"			"	2	"	M/D のボーリング位置
11	TUXPAN, VER. PUERTO INDUSTRIAL PROGRAMA DE EXPLORACION GEOLOGICA	"			"	1	CPI 事前に入手 M/D のボーリング位置	
12	ESTUDIO GEOLOGICO Y DE MECANICA DE SUELOS EN EL ALEA DEL PUERTO INDUSTRIAL TUXPAN, VER.	File	A-4	49	"	"	SCT	
13	TUXPAN, VER. PLANOS DE MAREAS REFERIDOS AL NIVEL MEDIO DEL MAR.	Paper	B-5	8	"	"	CPI	
14	AFNA. MECANICA SUELOS (AGCH2) MEW. NO. S-40-81	"	"	"	"	"	"	

番号	資料の名称	形態	版型	頁数	原本/複写	部数	収集先	又は発行機関
15	PREVISIONES DE TRAFICO MARITIMO PARA LOS PUERTOS INDUSTRIALES DE MEXICO ALTAMIRA-OSTION-LAZARO CARDENAS-SALINA CRUZ メキシコ工業港連海上輸送予測 (アルタミラ, オスチオン, ラサロカルデナス, サリクルス)	Book	A-4	401	原	1部	CPI	
16	PUERTO INDUSTRIAL DE TUXPAN, VER. ESTUDIO (Volumen I, II) トクスパン工業港	Book	A-4	450	"	1部	CPI	
17	ESTADISTICAS ECONOMICAS Y SOCIALES DE MEXICO メキシコ国経済・社会指標	Book	A-4	72	"	1部	CPI	
18	MOVIMIENTO DE CONTENEDORES コンテナ貨物流動	Paper	B-4	2	複	1部	SCT	
19	PUERTO INDUSTRIAL DE TUXPAN, VER. トクスパン工業港	Paper	A-4	1	"	1部	CPI	
20	メキシコの工業開発と金属・機械工業	Book	A-4	524	原	1部	(財)国際開発センター	
21	海外農林業開発協力国別(地域別)本針基礎調査報告書	Book	A-4	371	"	1部		
22	中・高所得開発途上国の社会経済とわが国の援助対応	Book	A-4	426	"	1部		
23	メキシコ国臨海工業立地調査報告書	Book	A-4	148	複	1部	(社)日本プラント協会	

(参考資料)

## General questionnaire

### I. Industrial development in the United States of Mexico

What is the present situation, future plan and implementing strategy of the industrial development?

- a) the type, scale and developing schedule of industry which is to be the core of the industrial development
- b) relation to the resources
  - b-1 contents, quantity, regional distribution, transporting methods of the domestic resources
  - b-2 contents of the resources to be imported
  - b-3 important products to be exported
- c) related plan for strategy  
(ports, other infrastructures, regional development, etc.)
- d) the basic idea of the industrial development in each region

### II. Regional development in the United States of Mexico

What is the present situation, future plan and implementing strategy of the regional development?

- a) the present situation and the problems in each region  
(population, economy, employment opportunity, environment, etc.)
- b) the basic idea of the regional development region-wise priority

### III. Role of ports

What is your governmental policy of the functional allotment to each port?

- a) industrial port



- b) commercial port  
(including related hinterland)

#### IV. The development of the port of TOXPAN and its vicinity

What is the present situation, future plan and implementing strategy of the industrial development and the regional development?

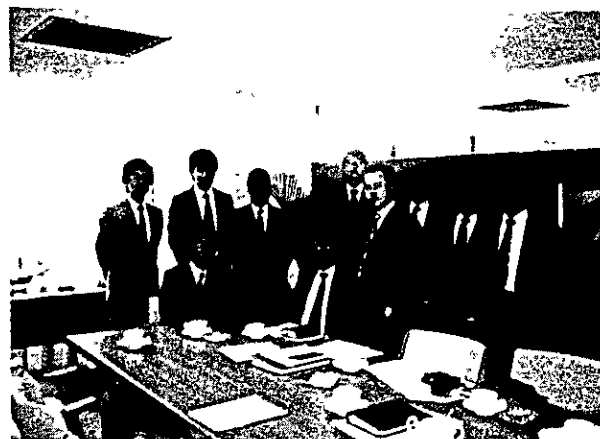
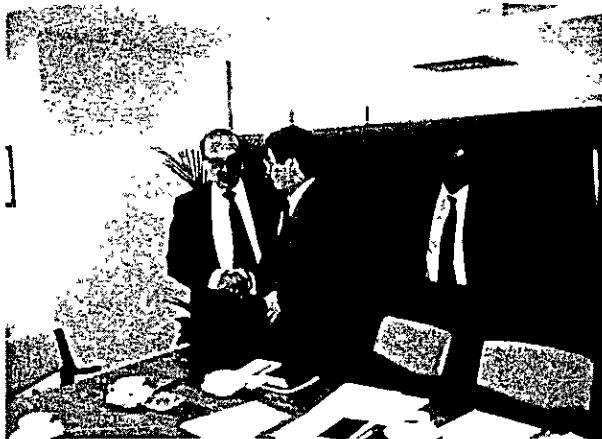
- a) the present situation and the problems in the region
- b) the industry which is to be the core of the development and its relation with the existing resources such as fishery, mining, tourism)
- c) the role of the port of TOXPAN
  - c-1 industrial development  
(the type of the industry, relation with other ports, present problem)
  - c-2 commercial aspect  
(hinterland, kinds of cargo, present problem)
  - c-3 leisure activity  
(hinterland, type, present problem)
  - c-4 fishing port  
(hinterland, present problem)
  - c-5 others  
(agriculture, housing problem)
  - c-6 urgent matters
  - c-7 future prospect of the industrialization of this area  
(concrete plan, study)
  - c-8 study on the development of the port of TOXPAN

V. Others

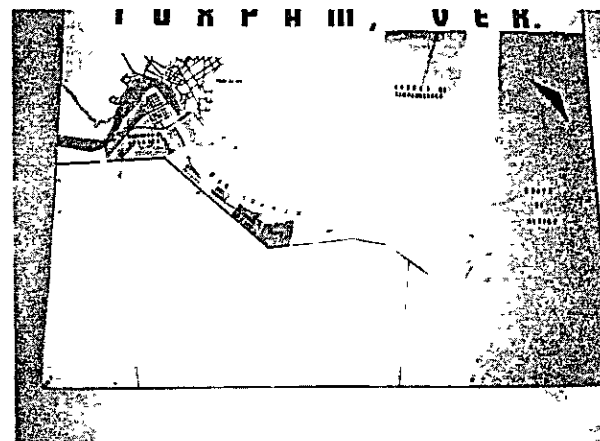
- a) study of natural conditions
  - a-1 topographical study and sounding survey carried out in the past
  - a-2 the contents, result and prospect of the on-going study
  - a-3 purpose of the on-going study
  - a-4 availability of supplemental study and relationship with JICA study
  - a-5 recommendable companies for the above survey, unit cost, existing of survey equipments
- b) the idea of the site selection of the port of TOXPAN  
(step, schedule)
- c) future prospect of the industrialization
  - c-1 expected enterprises
  - c-2 possibility of hering from the enterprises concerned
  - c-3 support by your Government for c-2 above
- d) Organization of Mexican Authorities Concerned Counterparts

## 5. 現 地 写 真

( S / W 署 名 )



( トクスパン川周辺図面 )



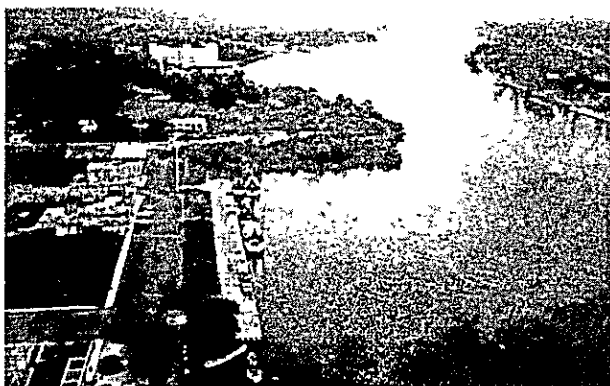
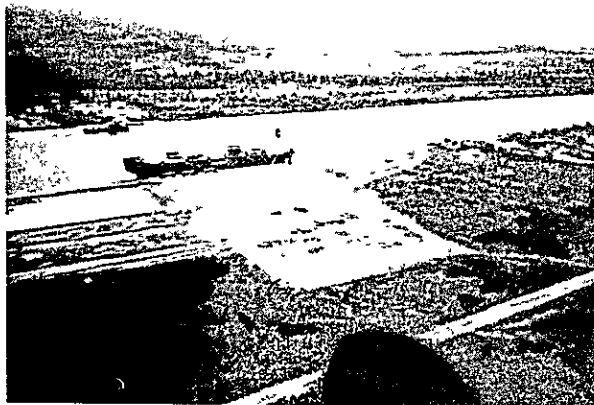
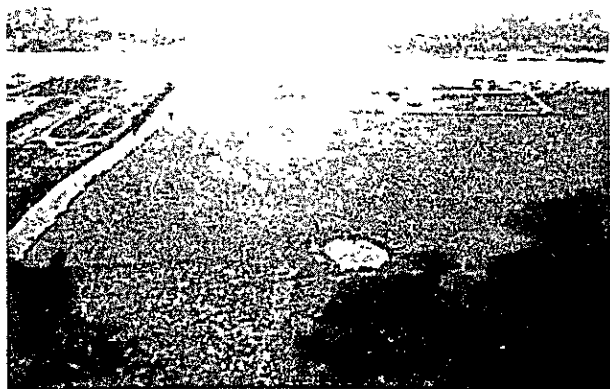


(自然条件概観)





(トクспан川周辺状況)







( サ イ ト 1 近 辺 )



( トクスパン川南牧場 )

( トクスパン川北住宅地 )



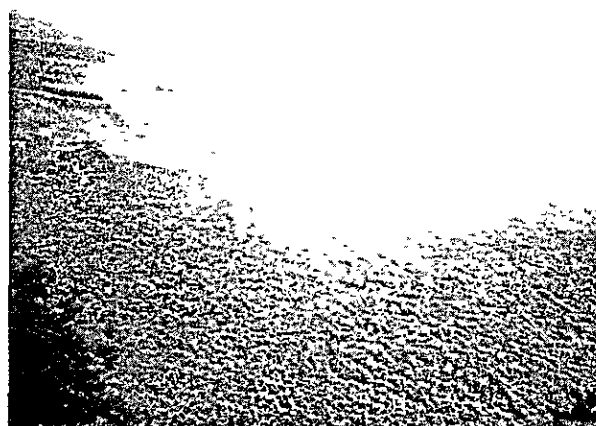
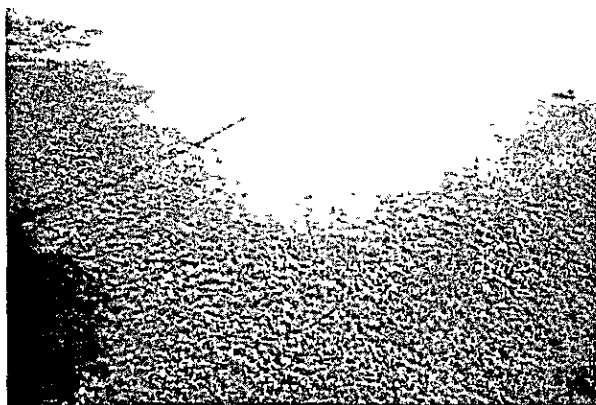
( トクスパン川しゅんせつ船 )

( トクスパン → タンビコ )





( サ イ ト 3 近 辺 )



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