ANNEX

ANNEX 1 : REFERENCE DATA ON FISHERIES OF THAILAND

Table 1. Average Annual Protein Intake by Thai People

Year	Annual Protein Consumption Per Capita (kg/head/year)				Rate of Fish occupied in Total Animal Protein (%)
	Fish	Pork	Beef	Chicken	
1979	22.9	7.5	2.0	5.0	61.2
1980	18.4	7.9	2.0	5.0	55.2
1981	18.6	7.6	2.0	5.0	56.2

Source : Department of Fisheries (DOF), Thailand

Table 2. Fish Supply in Thailand

Year	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981
Fish Catch (thousand tons)	1,680	1,680	1,510	1,560	1,700	2,190	2,100	1,950	1,790	1,990
Rate of Fish for Direct Consumption for Human Beings (%)	78.2	65.2	62.6	62.5	67.5	58.5	56.1	57.9	54.1	57.7
Export (thousand tons)	82	104	88	71	84	105	132	149	148	300
Import (thousand tons)	15	19	20	17	25	19	29	80	43	47
Fish Supply for Domestic Consumption (thousand tons)	1,250	1,010	880	920	1,090	1,200	1,070	1,060	860	890
Population (million persons)	38.36	39.95	41.33	42.39	43.21	44.27	45.22	46.11	46.96	47.87
Fish Consumption Per Capita (kg/year)	32.5	25.3	21.2	21.7	25.2	27.0	23.8	22.9	18.4	18.6

Source : Department of Fisheries (DOF), Thailand

Table 3. Gross National Products by Sector in Thailand (Based on price in 1972)

Sector \ Year	Value (million bahts)			
	1979	1980	1981	Ratio
Primary Sector	71,408	72,784	76,235	24.2
Agriculture	51,804	54,179	57,491	18.2
Livestock	8,931	9,011	9,520	3.0
Fisheries	7,728	6,276	5,978	1.9
Forestry	3,392	3,318	3,246	1.0
Other Sectors	205,499	220,068	238,881	75.8
Gross National Products (GNP)	276,907	292,852	315,116	100.0

Source : JETRO, Japan

Table 4. Fish Catch by Species from Marine Fishery (1981)

Species \ Area	Gulf (tons)	Indian Ocean (tons)	Total (tons)	Rate (%)
Fishes				
Demersal Fish	820,288	165,529	985,817	56.1
(Trash Fish)	(665,373)	(131,374)	(796,747)	(45.3)
Pelagic Fish	369,459	18,902	388,361	22.1
Crustacean	148,092	24,100	172,192	9.8
Shellfishes	95,833	4,702	100,535	5.7
Squid/Octopus	72,707	8,098	80,805	4.6
Sea Cucumber	-	21	21	<0.1
Jelly Fish	11,620	17,213	28,833	1.6
Seaweeds	312	63	375	<0.1
Total	1,518,311	238,628	1,756,939	100.0

Source : Department of Fisheries (DOF), Thailand
SEAFDEC, Bangkok

Table 5. Number of Fishing Establishments and Fishermen in Thailand

Item \ Year	1978	1981
No. of Establishment	31,988	54,961
Individual Management	31,755	54,686
Joint Management	233	275
Fishing Population	*280,000	*330,000
No. of Fishermen	76,000	89,777
Special Fishermen	55,600	65,569
Fishermen with side job	14,900	17,486
Person doing fishing on side	5,500	6,722

*estimated

Source : SEAFDEC, Bangkok

Table 6. Export of Fisheries Products in Thailand (1981)

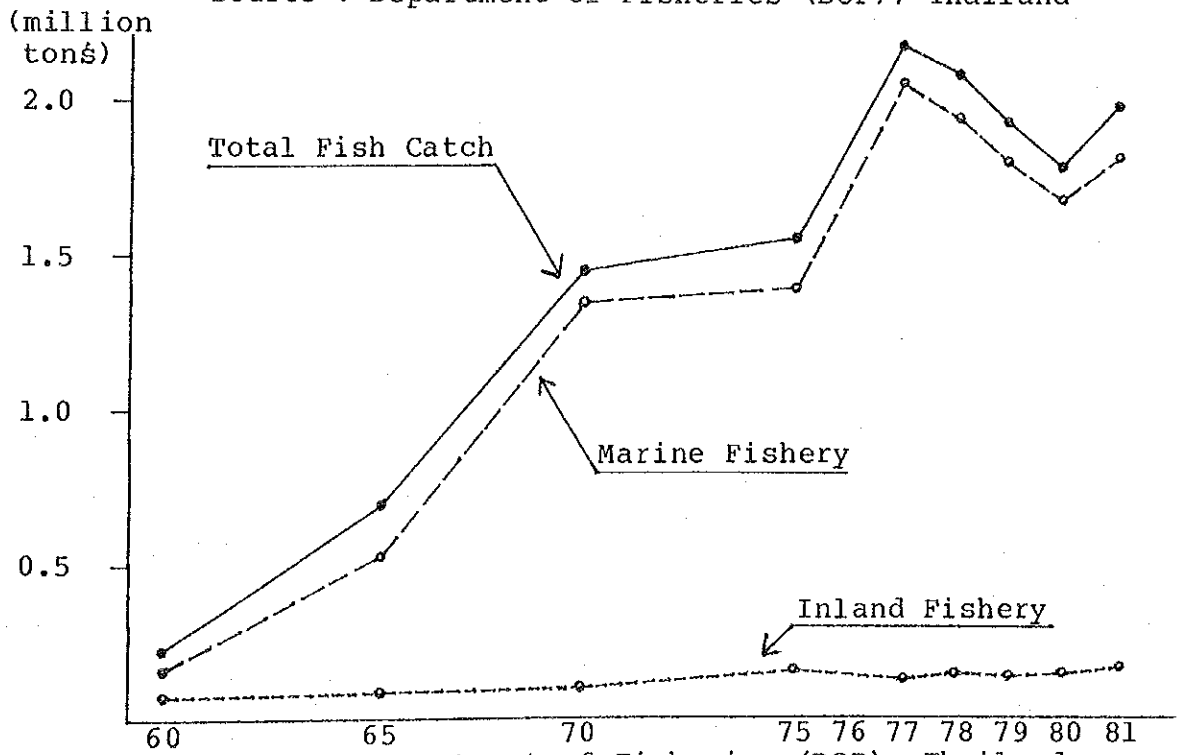
Item	Value (US$'000)	Major Destination by Country
Fresh & frozen fish	33,260	Japan(19,877), Malaysia(8,251) U.S.A.(3,303)
Dried & salted fish	3,592	Japan(892), Malaysia(760), Hong Kong(736)
Fresh & frozen shrimp	92,677	Japan(62,922), U.S.A.(10,204), Hong Kong(5,579)
Fresh & frozen squid	57,908	Japan(28,058), Italy(18,234), France(4,503)
Dried & salted squid	21,184	Japan(15,500), Hong Kong(3,671), Singapore(1,406)
Canned fish	48,172	U.S.A.(14,318), West Germany(5,628) Australia(4,704), Sweden(3,969)

Source : Department of Fisheries (DOF), Thailand
SEAFDEC, Thailand

Table 7. Fish Catch by Type of Fishing and Rate of Trash Fish (1981)

Type of Fishing	Fish Landing (tons)	Trash Fish (tons)	Ratio of Trash Fish (%)
Trawl Net	1,073,611	726,024	67.6
Purse Seine Net	327,179	41,993	12.8
Gill Net	120,865	439	0.4
Push Net	35,200	16,447	46.7

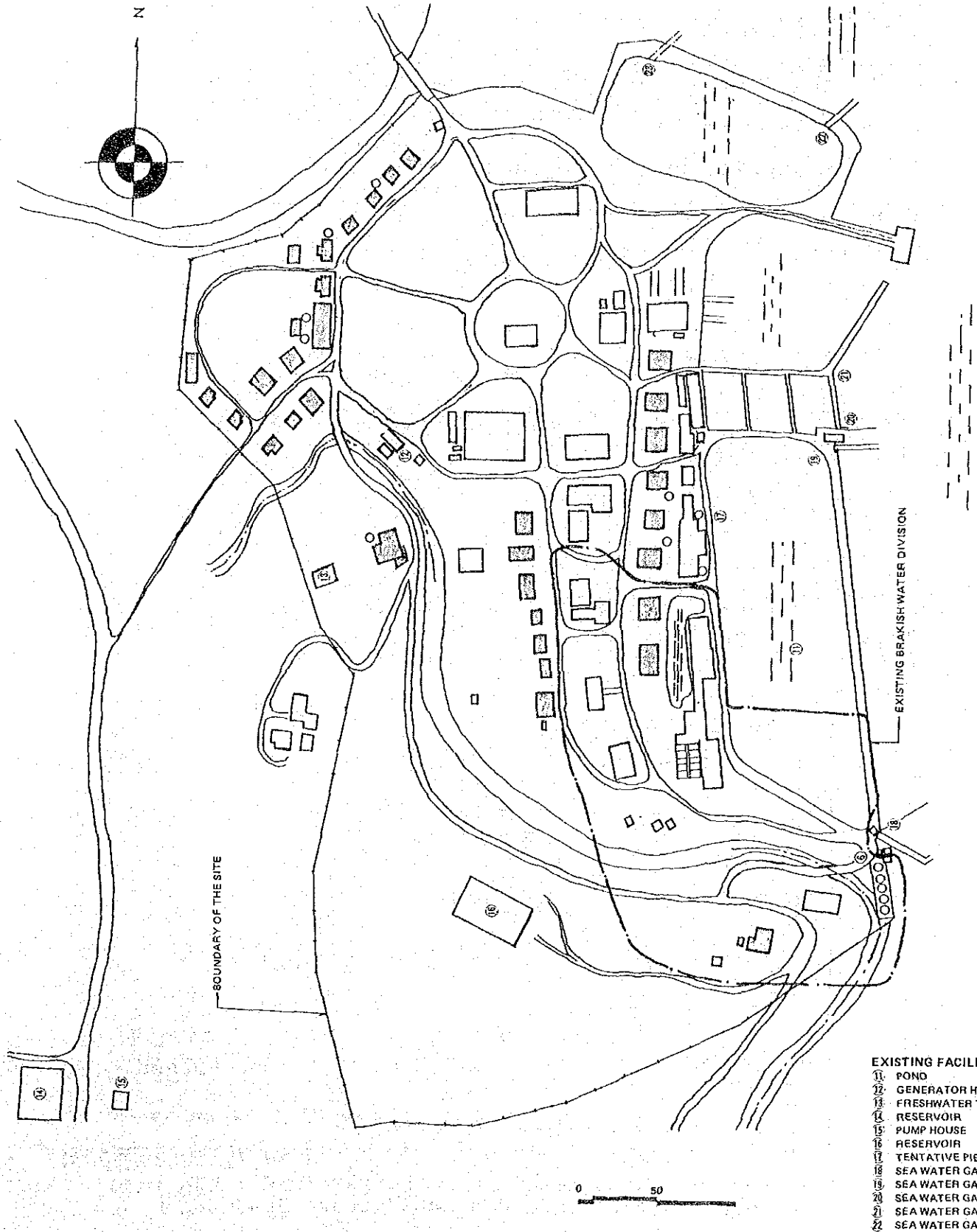
Source : Department of Fisheries (DOF), Thailand



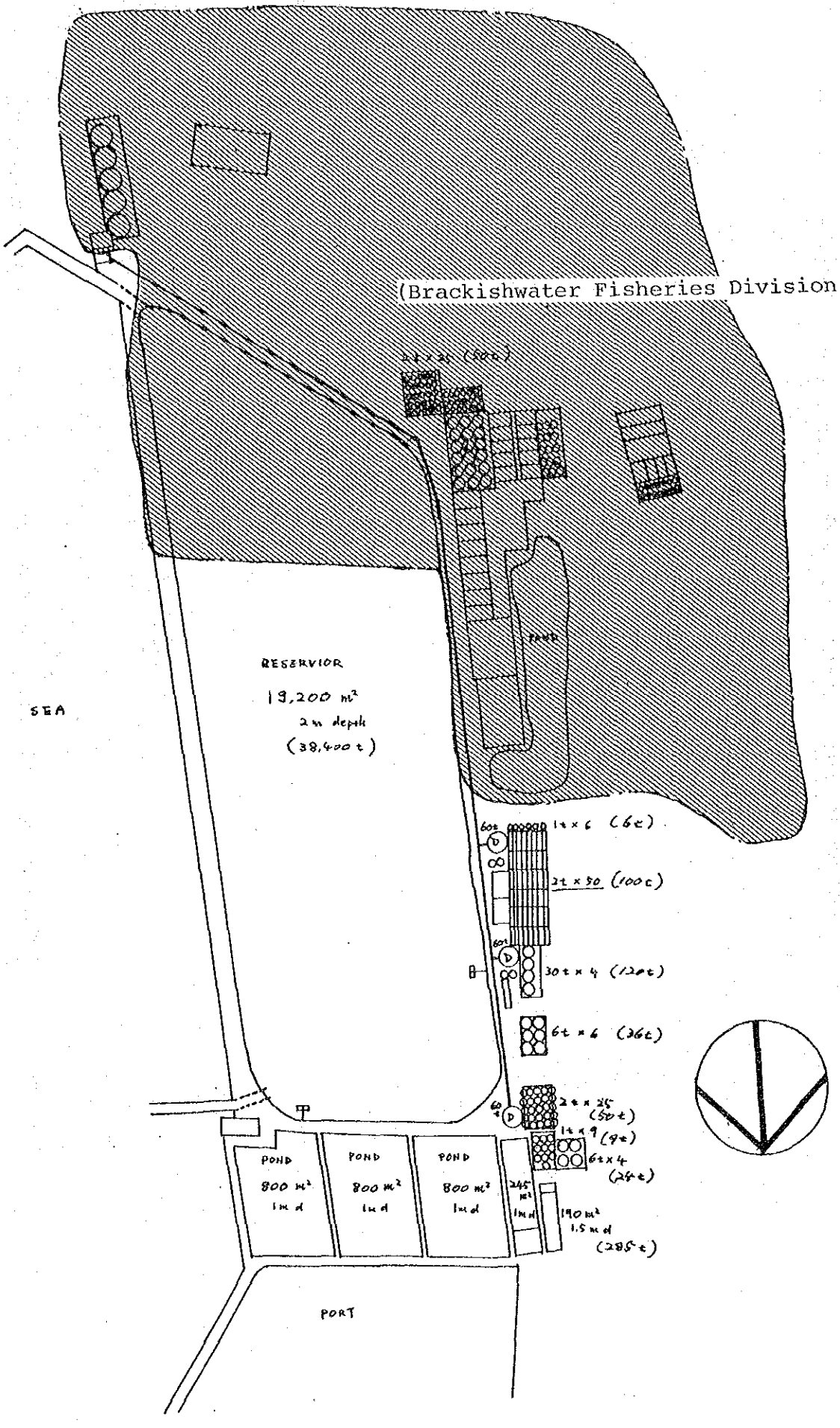
Source : Department of Fisheries (DOF), Thailand
Note : Figure includes aquaculture production.

Fig. 1. Total Fish Production in Thailand

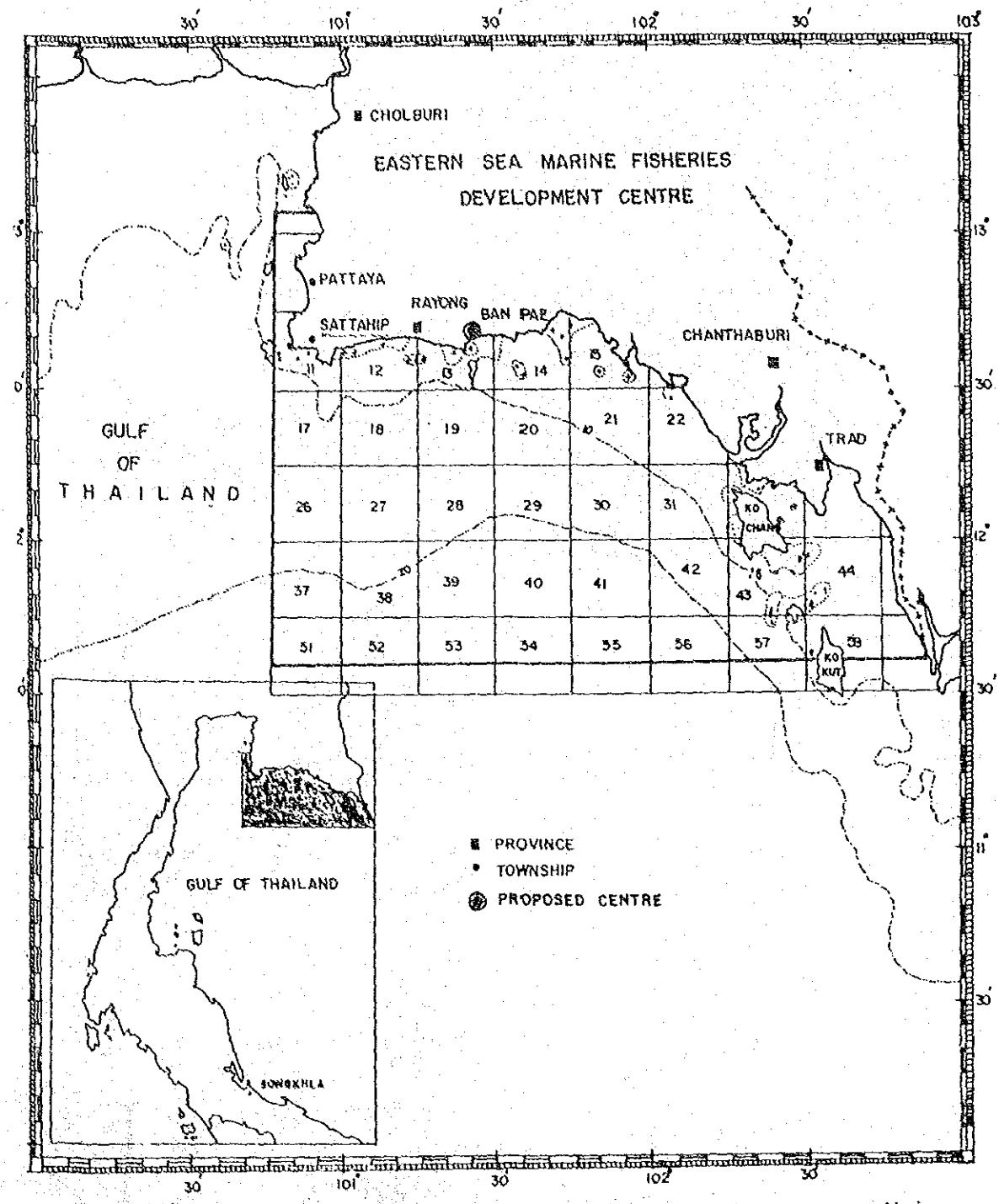
ANNEX 2 : LAYOUT OF RAYONG MARINE FISHERIES STATION



ANNEX 3 : AQUACULTURE FACILITIES IN RAYONG MARINE FISHERIES STATION

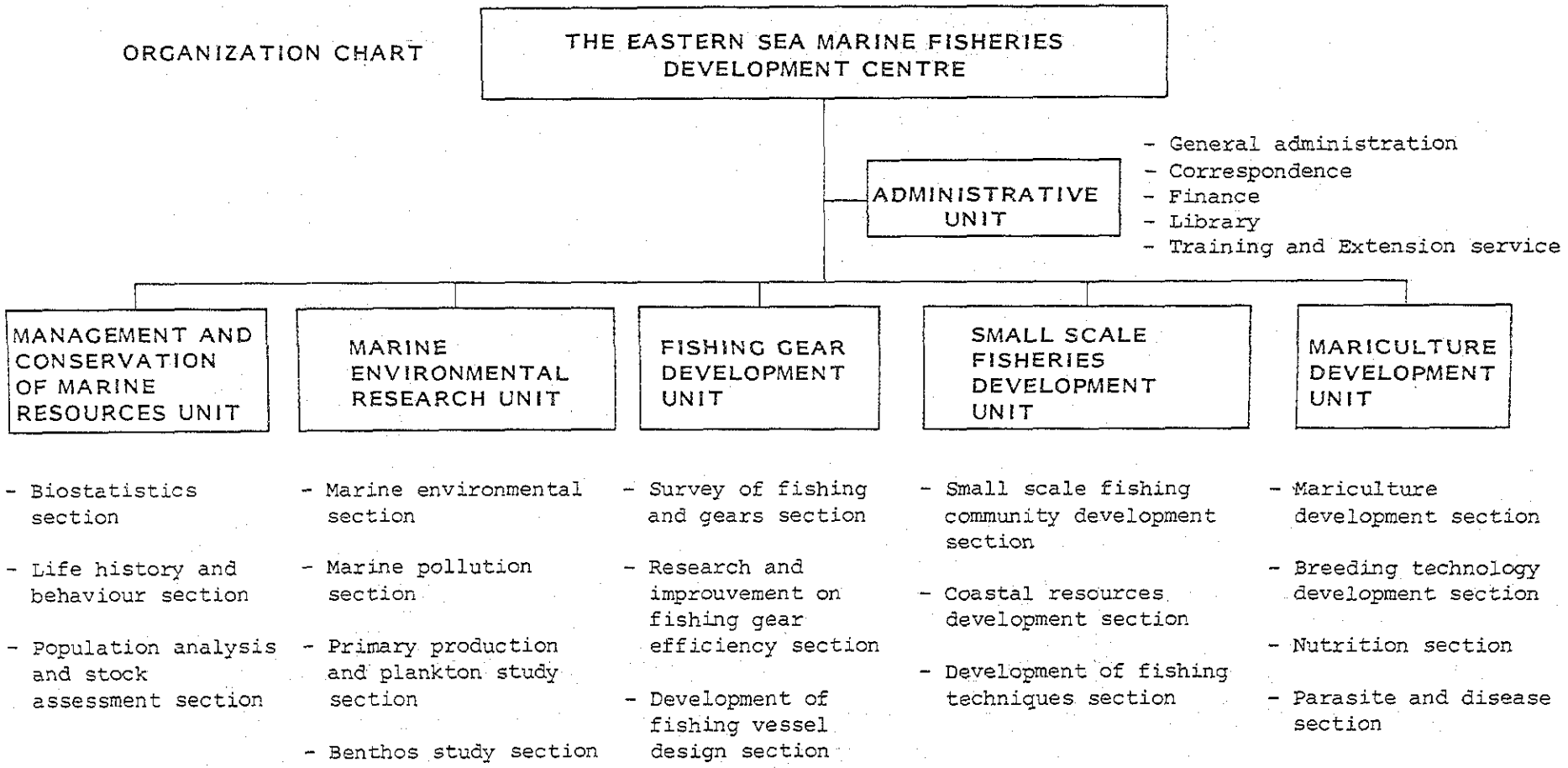


ANNEX 4 : OBJECTIVE REGION FOR THE EASTERN SEA MARINE FISHERIES DEVELOPMENT CENTER



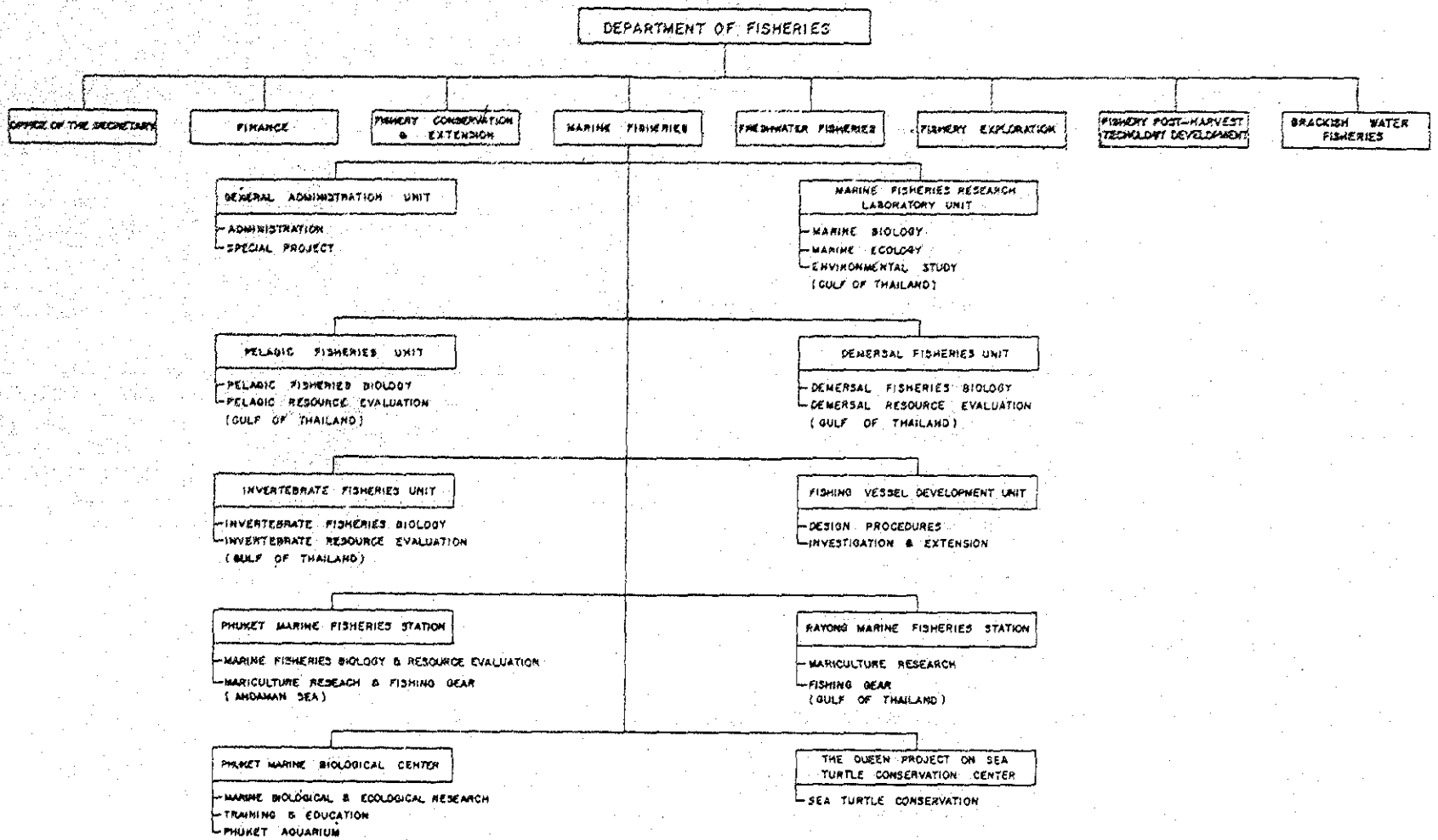
Map showing geographical location and responsible area of the Eastern sea Marine - Fisheries Development centre situated in the eastern side of the Gulf of Thailand.

ANNEX 5 : ORGANIZATION CHART OF THE CENTER



ANNEX 6 : ORGANIZATION CHART OF DEPARTMENT OF FISHERIES (DOF)

ORGANIZATION STRUCTURE AND MAIN ACTIVITIES OF MARINE FISHERIES DIVISION



DEPARTMENT OF FISHERIES

OCTOBER 19 1983

ANNEX 7 : METEOLOGICAL DATA IN ADJACENT AREA OF THE PROJECT SITE

ข้อมูลอุตุนิยมวิทยาประจำปี 2524

สถานีตรวจอากาศ ระยอง (RAYONG) สูงจากระดับน้ำทะเล 2.636 เมตร

	ม.ค.	ก.พ.	มี.ค.	เมย.	พ.ค.	มิ.ย.	ก.ค.	ส.ค.	ก.ย.	ต.ค.	พ.ย.	ธ.ค.	ทั้งปี	
ความกด(+ 1000 หรือ 900 มม.)	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Whole Year	Air Pressure (mb)
เฉลี่ย	13.07	11.37	11.43	09.45	07.65	06.98	06.82	06.97	08.28	09.12	09.92	14.09	09.60	Average
เฉลี่ยสูงสุด	15.20	13.45	13.71	11.46	09.44	08.47	08.29	08.68	10.10	11.02	11.80	16.05	11.47	Average Max
เฉลี่ยต่ำสุด	11.00	09.63	09.66	07.51	05.76	05.41	05.17	05.19	06.16	07.16	07.91	12.03	07.72	Average Min
อุณหภูมิ (ซ.)														Temperature (°C)
เฉลี่ย	25.0	27.6	29.1	29.4	29.5	29.2	29.0	28.6	27.8	28.1	26.5	24.4	27.9	Average
เฉลี่ยสูงสุด	30.7	31.4	32.2	33.0	33.1	31.5	31.5	31.0	32.2	31.8	30.7	30.1	31.6	Average Max
เฉลี่ยต่ำสุด	19.0	23.6	26.1	26.6	29.7	27.1	26.7	26.5	24.6	25.1	23.4	19.4	24.8	Average Min
สูงที่สุด	31.5	32.5	33.6	34.3	34.7	33.1	32.7	33.3	35.0	33.6	34.0	32.2	35.0	Highest
วันที่	3,31	14	29	28	4	3	13	31	16	26	1	14	16	Date
ต่ำที่สุด	14.6	16.5	22.3	23.3	23.9	22.8	22.7	24.3	23.4	23.4	20.1	15.0	14.6	Lowest
วันที่	14,15	18	3	14	4	25	15	7,12	23	9	11	21	14,15	Date
ความชื้นสัมพัทธ์(%)														Humid (%)
เฉลี่ย	69.9	76.5	76.7	79.1	80.1	79.1	77.3	78.0	82.0	77.8	79.3	67.9	77.0	Average
เฉลี่ยสูงสุด	87.6	83.5	86.7	88.8	91.1	86.2	86.4	85.8	93.3	89.0	90.9	82.8	87.3	Average Max
เฉลี่ยต่ำสุด	51.5	62.5	65.9	63.5	67.6	71.3	68.3	70.1	66.8	64.2	63.4	50.4	64.2	Average Min
ต่ำที่สุด	29.0	47.0	53.0	61.0	58.0	60.0	61.0	61.0	54.0	50.0	47.0	33.0	29.0	Lowest
วันที่	13	10	31	2	29	3	13	2,31	15	26,27	10	7	13	Date
น้ำระเหย (มม.)														Days
พิเช	-	-	-	-	-	-	-	-	-	-	-	-	-	
ถาด	154.1	144.3	190.9	169.6	97.6	-	143.9	155.8	-	155.0	119.3	147.9	-	
ทัศนวิสัย (กม.)														
เวลา 0700	7.8	7.5	9.1	9.5	10.1	9.2	9.7	9.6	9.1	9.2	8.8	8.4	9.0	
เฉลี่ย	9.4	9.7	10.2	10.8	10.3	9.9	10.0	9.7	9.5	9.9	9.4	9.3	9.8	
เมฆ (0-8)														
เฉลี่ย	3.6	4.1	4.4	4.5	6.2	6.9	7.0	6.8	6.9	5.6	6.0	3.1	5.4	
ลม (นอต)	ทิศ	W	WW	WW	SW	SW	W	W	W	W	N	N		Wind (knot)
ทิศทาง	นอ	ว	ชว	ชว	ชว	ชว	ว	ว	ว	ว	น	น	-	Direction
ความเร็วลมเฉลี่ย	1.8	3.7	3.9	3.6	5.0	8.2	6.5	8.2	2.5	4.6	1.9	3.5	-	Average Speed
ความเร็วลมสูงที่สุด	15 เห	15ชว	16ชว	15ชว	25 ว	28 ว	44 ว	40ชว	25ชว	20 วพ	20 นอ	20 อ	-	Highest "
วันที่	12	14,26	23	12,14	21	1	5	6	13	8,15	30	15	-	Date
ฝน (มม.)														Rain (mm)
ฝนรวมทั้งเดือน	0.3	15.8	22.4	35.0	219.4	218.3	34.4	114.5	190.8	142.9	210.0	ฝน	1253.8	Whole Month
ฝนสูงที่สุดใน24ชม.	0.3	12.2	15.2	27.2	53.0	177.8	10.8	29.0	69.9	63.3	57.1	-	177.8	Max
วันที่	31	2	5	17	22	24	5	7	21	8	17	-	24	Date
จำนวนวันที่มีฝนตก	1	5	3	11	14	13	9	13	15	9	14	-	107	
จำนวนวันที่ไม่มีฝนตก	0	0	0	0	0	0	0	0	0	0	0	0	0	
จำนวนวันฟ้าคะนอง	0	1	1	5	10	2	2	0	6	6	5	0	33	

หมายเหตุ น้ำระเหยเดือนมิ.ย., ก.ย. น้ำฝนถาก

Analysis from Chulalongkorn Univ.

สถาบันวิจัยโลหะและวัสดุ

จุฬาลงกรณ์มหาวิทยาลัย

.....

แบบรายงานผลการวิเคราะห์ Nov. 5, 1986

Sample No. .....From.....Date.....

Owner.....Address.....

PHYSICAL CHARACTERISTIC

☐ pH.....

☐ Color.....Platinum-cobalt Scale

☐ Conductivity.....μmhos./cm. (microohms per centimetre) at 25° C

☐ Turbidity.....FTU (Formazin Turbidity Units)

CHEMICAL CHARACTERISTIC

☐ Total Solids.....ppm.	☐ Aluminum (Al).....ppm.
☐ Suspended Solids.....ppm.	☐ Arsenic (As).....ppm.
☐ Dissolved Solids.....ppm.	☐ Boron (B).....ppm.
☐ Total hardness.....ppm. as $CaCO_3$	☐ Calcium (Ca).....ppm.
☐ Calcium hardness.....ppm. as $CaCO_3$	☐ Cobalt (Co).....ppm.
☐ Alkalinity.....ppm. as $CaCO_3$	☐ Copper (Cu).....ppm.
☐ Acidity.....ppm. as $CaCO_3$	☐ Chromium (Cr).....ppm.
☐ Chloride (Cl^-).....ppm.	☐ Iron (Fe).....ppm.
☐ Sulphate(SO_4^{2-}).....ppm.	☐ Lead (Pb).....ppm.
☐ Total phosphate(PO_4^{3-}).....ppm.	☐ Magnesium (Mg).....ppm.
☐ Nitrate (NO_3^-).....ppm.	☐ Manganese (Mn).....ppm.
☐ B.O.D. .....ppm.	☐ Silver (Ag).....ppm.
☐ C.O.D. .....ppm.	☐ Zinc (Zn).....ppm.
	☐ Other Heavy Metals
	.....ppm.
	.....ppm.
	.....ppm.

ppm. = part per million

Date.....

Analysed and checked by.....

Chief Chemist.....

ANNEX 8 : PLAN FOR STAFFING AND ACTIVITIES OF THE CENTER

(1) PERSONNEL CARRY OUT THE CENTER

Personnel \ Activity No.	1	2	3	4	5	6	7	8	9	10	11	12
1. Director												
Administrative Section												
2. Fishery biologist												o
Management												
3. Fishery biologist	o	o	o									
4. Fishery biologist	o	o	o									
5. Fishery biologist	o	o	o									
6. Fishery biologist	o	o	o									
7. Fishery biologist				o	o							
Environment Research												
8. Fishery biologist						o						
9. Marine chemist						o						
10. Marine chemist						o						
11. Fishery biologist						o						
12. Fishery biologist						o						
13. Physical oceanographer						o						
Fishing Gear												
14. Fishing gear expert				o	o		o					
15. Fishery biologist							o					
Small Scale Fishery												
16. Fishery biologist								o				
17. Fishery biologist								o				
Mariculture												
18. Fishery biologist									o	o	o	
19. Fishery biologist									o	o		
20. Fishery biologist									o	o		
21. Fishery biologist											o	
22. Fishery biologist									o	o	o	
23. Fishery biologist									o	o		
24. Fishery biologist									o	o		
25. Fishery biologist											o	
26. Technician												o
27. "												o
28. "												o
29. "												o
30. "												o
31. "	o	o	o									
32. "	o	o	o									
33. "	o	o	o									
34. "	o	o	o									
35. "				o	o							
36. "				o	o							
37. "						o						
38. "						o						
39. "						o						
40. "						o						
41. "						o						
42. "						o						
43. "							o					
44. "							o					
45. "								o				
46. "								o				
47. "								o				
48. "								o				
49. "								o				
50. "								o				
51. "									o			
52. "									o			
53. "									o			
54. "											o	
55. "										o	o	
56. "										o	o	
57. "										o	o	
58. "										o	o	

(2) Activities of the EMDEC

Management and Conservation of Marine Resources Unit

1 : Study on size distributions of shrimps and squids.

2 : Studies on life histories of shrimps and squids.

3 : Population analysis and stock assessments of marine resources.

4 : Monitoring survey of marine resources.

5 : Mesh size selection studies.

Marine Environmental Research Unit

6 : Assessing the water quality.

Fishing Gear Development Unit

7 : Development of new fishing method and gear.

Small Scale Fisheries Development Unit

8 : Small scale fisheries development programme.

Mariculture Development Unit

9 : Mariculture technology development.

10 : Mass seed production programme.

11 : Development of artificial food for mariculture production.

Administration Unit

12 : Training and extension services.

ANNEX 9 LIST OF MEMBERS OF JAPANESE SURVEY TEAM

Leader		
	Tatsuhiko Iwasawa	Duputy Director, International Division, Oceanic Fishery Department, Fishery Agency
Coordinator		
	Hideki Tomobe	Basic Design Division, Grant Aid Depertment, Japan International Cooperation Agency
Architect		
	Kazuo Itoh	Architectual Department, Raymond Architectural Design Office, Inc.
Utility Engineer		
	Hiroshi Sugimoto	Utility Department, Raymond Architectural Design Office, Inc.
Aquaculture Expart		
	Takeshi Wakamatsu	Overseas Agro-fisheries Consultants Co., Ltd.
Civil Engineer		
	Hisashi Iwase	Overseas Agro-fisheries Consultants Co., Ltd.
Fisheries Expart		
	Kazumi Iida	Overseas Agro-fisheries Consultants Co., Ltd.

ANNEX 10. LIST OF PERSONS MET BY THE TEAM

Department of Technical and Economic Cooperation (DTEC)

Deputy Director General	Mr. Kasem Unahasuvan

Ministry of Agriculture and Cooperatives

Deputy Minister	Mr. Barom

Department of Fisheries

Director General	Mr. Vanich Varikul
Deputy Director General	Dr. Plod Prasop Surawadi
Deputy Director General	Mr. Samran
Director, Marine Fisheries Division	Mr. Urupan Boonprakob
Head, Rayong Marine Fisheries Station	Mr. Tongsueb Taweesith
Chief, Large Natural Water Rehabilitation Unit	Mr. Charlie Itsayan
Chief, Phuket Marine Fisheries Station	Mr. Charoen Chirasathitaya
Director, Phuket Marine Biological Center	Mr. Boonlert Phasuk

Bangsaen Marine Science Center

Srinakharinmirot Univ.	Dr. Twee Hormchong
Director, Exploratory Division	Mr. Virach
Director, Fisheries Technological Development Division	Mr. Udom
Director, Acountancy Division	Mrs. Suwanna
Director, Inland Fisheries Division	Mr. Sawai
Director, Foreign Agricultural Relations Division	Mr. Chote

Embassy of Japan

First Secretary	Mr. Hitoshi Miyake

SEAFDEC

Deputy Director	Mr. Shigeaki Shindo

Foreign Agricultural Relations Division, Attached to the Ministry	Mr. Yukio Ohta

Japan International Cooperation Agency (JICA)

Director	Mr. Akira Kasai
Assistant Resident Representative	Mr. Kanehira Kawakami

ANNEX 11 : ITINERARY OF JAPANESE SURVEY MISSION

No.	Date	Place	Activities
1	Mar.11 (Sun.)	Tokyo - Bangkok	Departure by TG 601 (except Fisheries Equipment Expert)
2	Mar.12 (Mon.)	Bangkok	Courtesy call to JICA Office and the Embassy of Japan.
		"	Visited SEAFDEC and observed their facilities and training vessel.
3	Mar.13 (Tue.)	"	Courtesy call to Department of Fisheries (DOF), head quarter.
		"	Visited Marine Fisheries Division, DOF and discussed on scope of the Project.
4	Mar.14 (Wed.)	"	Discussed on scope of the Project with Marine Fisheries Division.
		Bangkok-Phuket	Moved to Phuket by TG 314.
5	Mar.15 (Thu.)	Phuket	Visited Phuket Marine Biological Center and Phuket Marine Fisheries Station.
		Phuket-Bangkok	Back to Bangkok by TG 315.
6	Mar.16 (Fri.)	Bangkok-Rayong	Dropped in Bangsaen Marine Science Center on the way to Rayong.
		Rayong	Visited Rayong Marine Fisheries Station and made a fact-finding survey including data collection.
7	Mar.17 (Sat.)	"	-ditto-
8	Mar.18 (Sun.)	"	-ditto-
		Rayong-Bangkok	Back to Bangkok.
9	Mar.19 (Mon.)	Bangkok	Discussed on the draft of the Minites of Discussion based on the result of survey on scope of the Project.
		Tokyo-Bangkok	Departure to Bangkok (Fisheries Equipment Expert)

No.	Date	Place	Activities
10	Mar.20 (Tue.)	Bangkok	Discussed and prepared the Minutes of Discussions at Marine Fisheries Division.
11	Mar.21 (Wed.)	"	Courtesy call to Department of Technical and Economic Cooperation (DTEC).
		"	Signed on the Minutes of Discussions at DOF.
		"	Collected additional data and information necessary for the basic design of the Project.
12	Mar.22 (Thu.)	"	-ditto-
		"	Discussed on the details of scope of the Project and collected supplementary data.
		Bangkok-Tokyo	Returned to Tokyo by TG 600. (Team Leader and Coordinator)
13	Mar.23 (Fri.)	Bangkok	Discussed on the proposed facilities at DOF.
			Discussed on the proposed facilities at Marine Fisheries Division.
14	Mar.24 (Sat.)	Bangkok-Trat	Investigated the present status of small-scale fisheries by visiting eastern coast of Thailand such as Rayong, Chantaburi and Trat.
		Bangkok-Ban sai	Observed the facilities of Ban Sai Hatchery Center.
		Bangkok	Collected data and information related to local construction.
15	Mar.25 (Sun.)	Trat-Rayong Bangkok-Rayong	Moved to Rayong both from Trat and Bangkok.
			Observed the fishing village on the way to Rayong.
		Rayong	Observed the Gas Separation Plant.
16	Mar.26 (Mon.)	"	Investigated the existing facilities of Rayong Marine Fisheries Station and collected additional data.

NO.	Date	Place	Activities
17	Mar.27 (Tue.)	Rayong	Investigated the existing facilities of Rayong Marine Fisheries Station and collected data.
		Rayong-Bangkok	Back to Bangkok.
		Bangkok	Observed the Sakeo Vocational Training Center.
18	Mar.28 (Wed.)	"	Visited Faculty of Marine Science, Chulalongkorn University.
		"	Observed the training vessel of SEAFDEC.
19	Mar.29 (Thu.)	"	Courtesy call to DOF.
			Investigated the existing facilities of Marine Fisheries Division.
			Collected additional data and information necessary for the basic design of the Project.
20	Mar.30 (Fri.)	"	Reported the results of survey to the Embassy of Japan and JICA Office.
21	Mar.31 (Sat.)	Bangkok-Tokyo	Returned to Tokyo by TG 600.

ANNEX 12 : MINUTES OF DISCUSSIONS

MINUTES OF DISCUSSIONS
ON
THE RAYONG MARINE FISHERIES STATION EXTENSION PROJECT
IN
THE KINGDOM OF THAILAND

In response to the request made by the Government of the Kingdom of Thailand for the extension project of the Rayong Marine Fisheries Station in Ban Pae, Rayong Province (hereinafter referred to as "the Project") the Government of Japan, through Japan International Cooperation Agency (JICA) has dispatched a Basic Design Study Team headed by Mr. Tatsuhiko Iwasawa, Deputy Director, International Division, Oceanic Fisheries Department, Fisheries Agency (hereinafter referred to as "the Team") to conduct the Basic Design Study on the Project from March 11 to 31, 1984.

The Team has carried out a field survey, had series of discussions and exchanged views with the Thai Government Authorities concerned with the Project.

As a result of the study and discussions, both parties have agreed to recommend to their respective Governments to examine the result of the study attached herewith towards the realization of the project.

March 21st, 1984.

Mr. Tatsuhiko Iwasawa
JICA Team Leader

Mr. Vanich Varikul
Director - General
Department of Fisheries

ATTACHMENTS

1. The objectives of the Project are to provide necessary building, facilities and equipment for the extension of the Rayong Marine Fisheries Station in Ban Pae, Rayong Province.

2. The construction sites are located in the Rayong Marine Fisheries Station. The sites are shown in ANNEX I.

3. The main activities of the Rayong Marine Fisheries Station after the extension are :

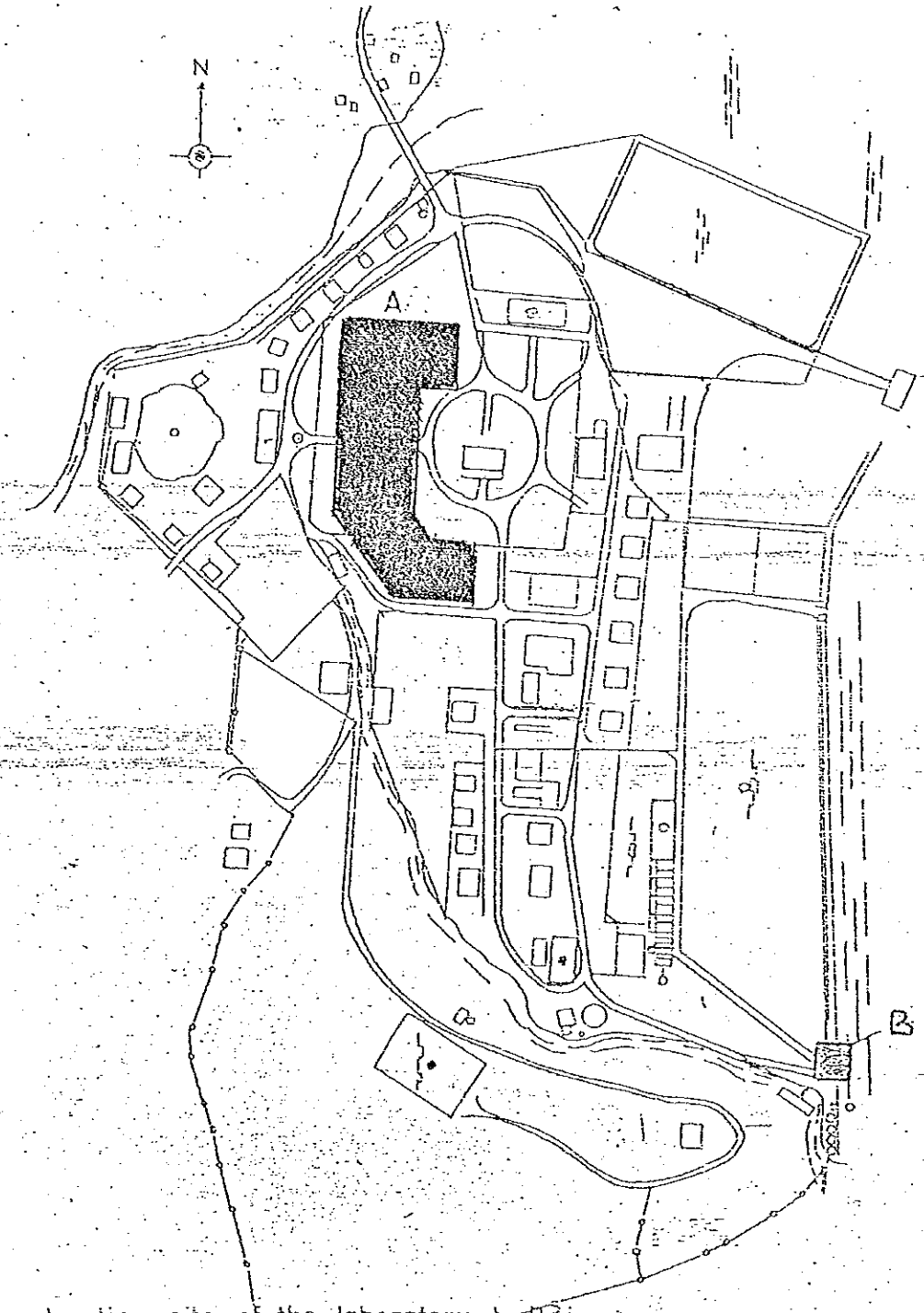
   - Management and conservation of marine resources
   - Marine environmental research
   - Fishing gear development
   - Small scale fisheries development
   - Mariculture development
   - Training and extension services

4. The Team will convey to the Government of Japan the desire of the Government of Thailand that the former takes necessary measures to cooperate by providing the buildings and other items listed in ANNEX II within the scope of Japanese economic cooperation in grant form.

5. The Government of Thailand has understood the Japan's Grant Aid system explained by the Team which includes a principle of use of a Japanese consultant firm and Japanese general constructor for the implementation of the Project.

6. The Government of Thailand will take necessary measures as listed in ANNEX III on condition that grant assistant by the Government of Japan is extended to the Project.

ANNEX I



A: Construction site of the laboratory building
: Construction site of the workshop
: Construction site of the dormitory
: Construction site of the cold-storage and pellet plant
B: Improvement of the water gate

ANNEX II

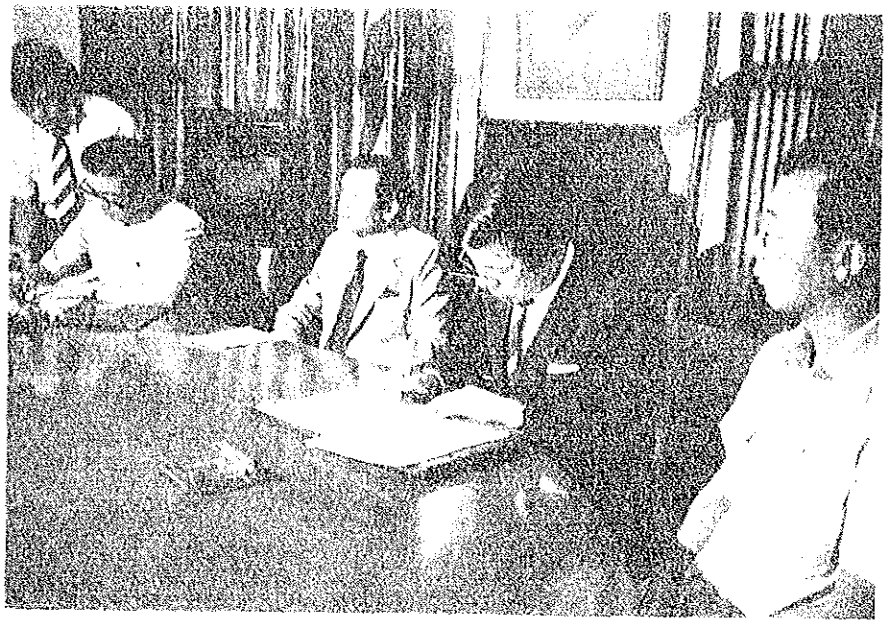
Items requested by the Government of Thailand, the cost of which will be borne by the Government of Japan;

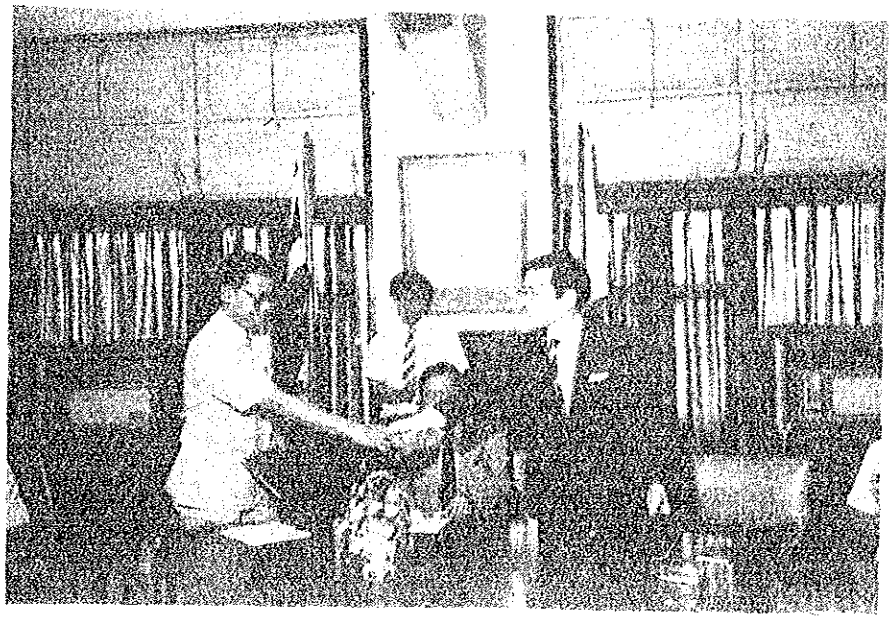
1. Construction of the laboratory building (site A)
   - Director's room
   - Staff's room
   - Dry laboratory
   - Wet laboratory
   - Lecture room
   - Library
   - Radio room
   - Other supporting facilities
   - Necessary equipment for activities
2. Construction of the workshop (site A)
   - Necessary equipment
3. Construction of the dormitory for trainees (site A)
4. Construction of the cold storage and pellet plant (site A)
5. Improvement of the water gate (site B)
6. Provision of the research vessel including necessary equipment
7. Provision of necessary equipment for the extension of the Station.

ANNEX III

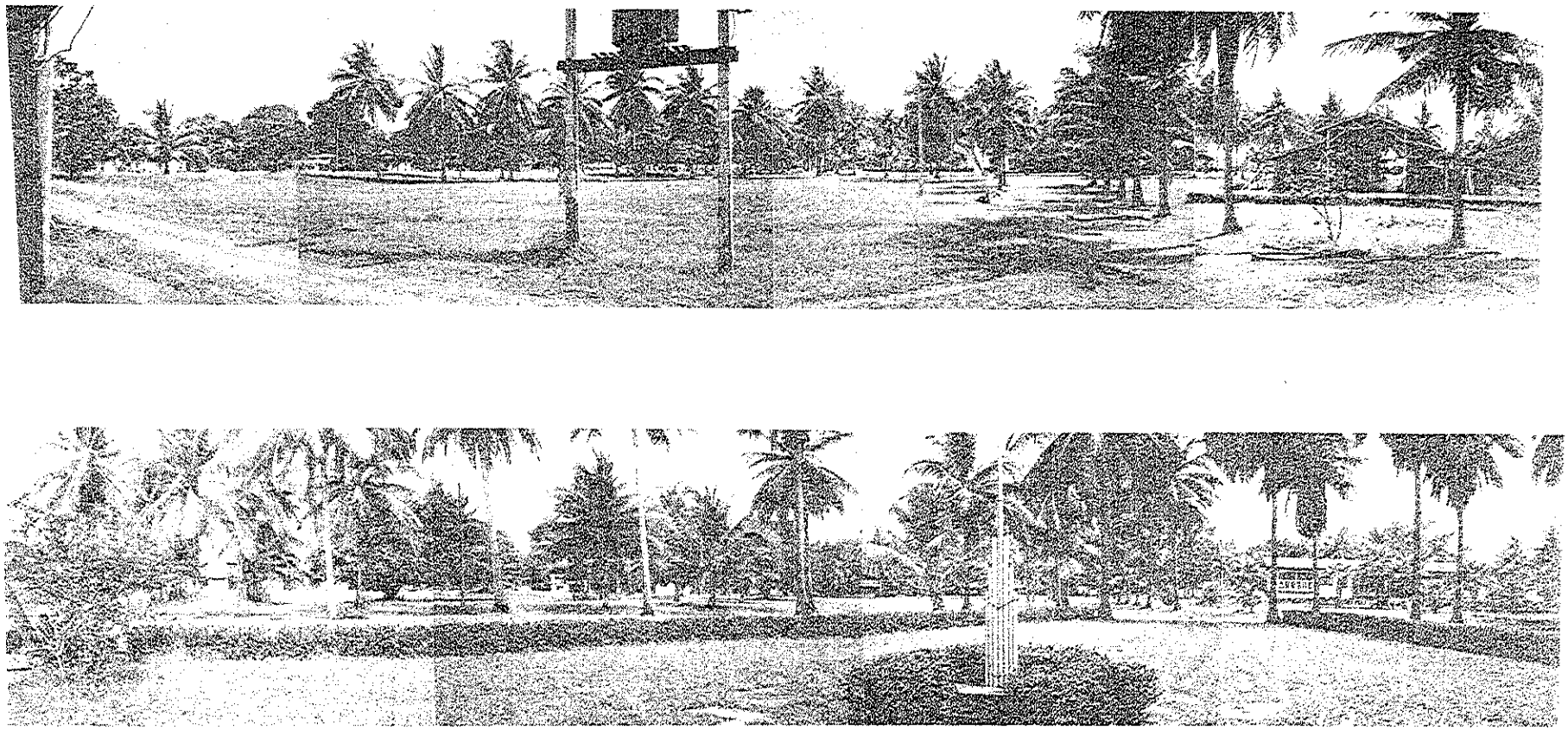
Following arrangement will be required to be taken by the government of Thailand :

1. to provide data and information necessary for design;
2. to secure enough lands necessary for the construction;
3. to clear and level the lands necessary for the construction;
4. to prepare water supply mains and electrical power main line to the site;
5. to make arrangement for the mooring site of the research vessel to the Government jetty at Ban Pae;
6. to ensure prompt unloading, tax exemption, customs clearance at ports of disembarkation in Thailand and prompt internal transportation therein of the products purchased under the grant;
7. to exempt Japanese nationals from customs duties, internal taxes and other fiscal levies which may be imposed in Thailand with respect to the supply of the products and services under the verified contracts;
8. to accord Japanese national whose services may be required in connection with the supply of the products and the services under the verified contract such facilities as may be necessary for their entry into Thailand and stay therein for the performance of their work;
9. to furnish general furniture ; and
10. to bear all the expenses other than those to be borne by the grant, necessary for construction of the facilities as well as for the transportation and the installation of the equipment.





Signing and exchanging of the minutes



Construction site