

4. Minutes of Discussion

**MINUTES OF DISCUSSIONS
ON THE BASIC DESIGN STUDY
ON THE PROJECT FOR IMPROVEMENT OF WATERSUPPLY FACILITIES
IN PHNOM PENH, PHASE II
IN THE KINGDOM OF CAMBODIA**

In response to the request from the Royal Government of Cambodia, the Government of Japan decided to conduct a Basic Design Study on the Project for improvement of water facilities in Phnom Penh, Phase II (hereinafter referred to as "the Project") and entrusted the study to the Japan International Cooperation Agency (JICA).

JICA has sent to Cambodia a Study Team headed by Ms. Keiko Yamamoto, Development Specialist, JICA, and is schedule to stay in the country from June 5 to July 2, 1996.

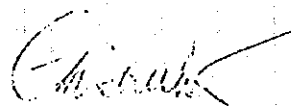
The team had a series of discussions with the officials concerned of Cambodia and conducted a field survey at the study area.

As a result of discussions and field survey, both sides have confirmed the main items described in the attached sheets.

Phnom Penh, June 11, 1996

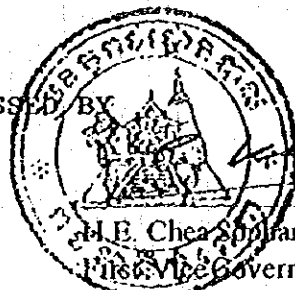


Ms. Keiko Yamamoto
Leader
Basic Design Study Team
Japan International Cooperation Agency



Mr. Ek Sonn Chan
Director
Phnom Penh Water Supply Authority

WITNESSED BY



H.E. Chea Solfara
First Vice Governor
Municipality of Phnom Penh

ATTACHMENT

1.Objectives

The objective of the Project is to improve the living environment with sufficient safe water supply through the rehabilitation of water distribution facilities of the Project Areas.

2.Project areas

The Project areas are 7th January and a part of Toul Kork as shown in the Annex I.

3.Executing agency

Municipality of Phnom Penh is responsible for the coordination to implement the Project.

Phnom Penh Water Supply Authority (PPWSA) is responsible for the execution of the Project.

4.Items requested by the Government of Cambodia

After discussions with the Basic Design Study Team, the following were finally requested by the Government of Cambodia. However, items to be included in the Project will be determined after further studies.

- 1) Improvement of water distribution pipelines in the Project Areas
- 2) Installation of isolating valves, air valves, drainage valves and fire hydrants in the Project Areas
- 3) Procurement of equipment for operation and maintenance of distribution pipelines in the Project Areas, which are described in Annex II

5.Issues undertaken by the Government of Cambodia

- 1) The Team requested that PPWSA should allocate the necessary budget for the connection of service pipes to consumers, and that the number of consumers, who will connect to the new distribution system after improvement, should not less than what they have before the Project. PPWSA shall finish the connection work in the duration of the Project.
- 2) PPWSA has a responsibility of disposal of abandoned pipes which are supposed to be replaced in the Project.

6. Japan's Grant Aid System

- 1) The Government of Cambodia understands the system of Japan's Grant Aid as explained by the Team.(Annex IV)

- 2) The Government of Cambodia will take necessary measures, as described in Annex III for the smooth implementation of the Project on condition that the Grant Aid by the Government of Japan is extended to the Project.

7. Schedule of the Study

- 1) The Team will proceed to further study in Cambodia until July 2, 1996.
- 2) JICA will prepare the draft report in English and dispatch a mission in order to explain its contents around September, 1996.
- 3) In case that the content of the draft report is accepted in principle by the Government of Cambodia, JICA will complete the final report and send it to Cambodia around November, 1996.

8. Other relevant issues

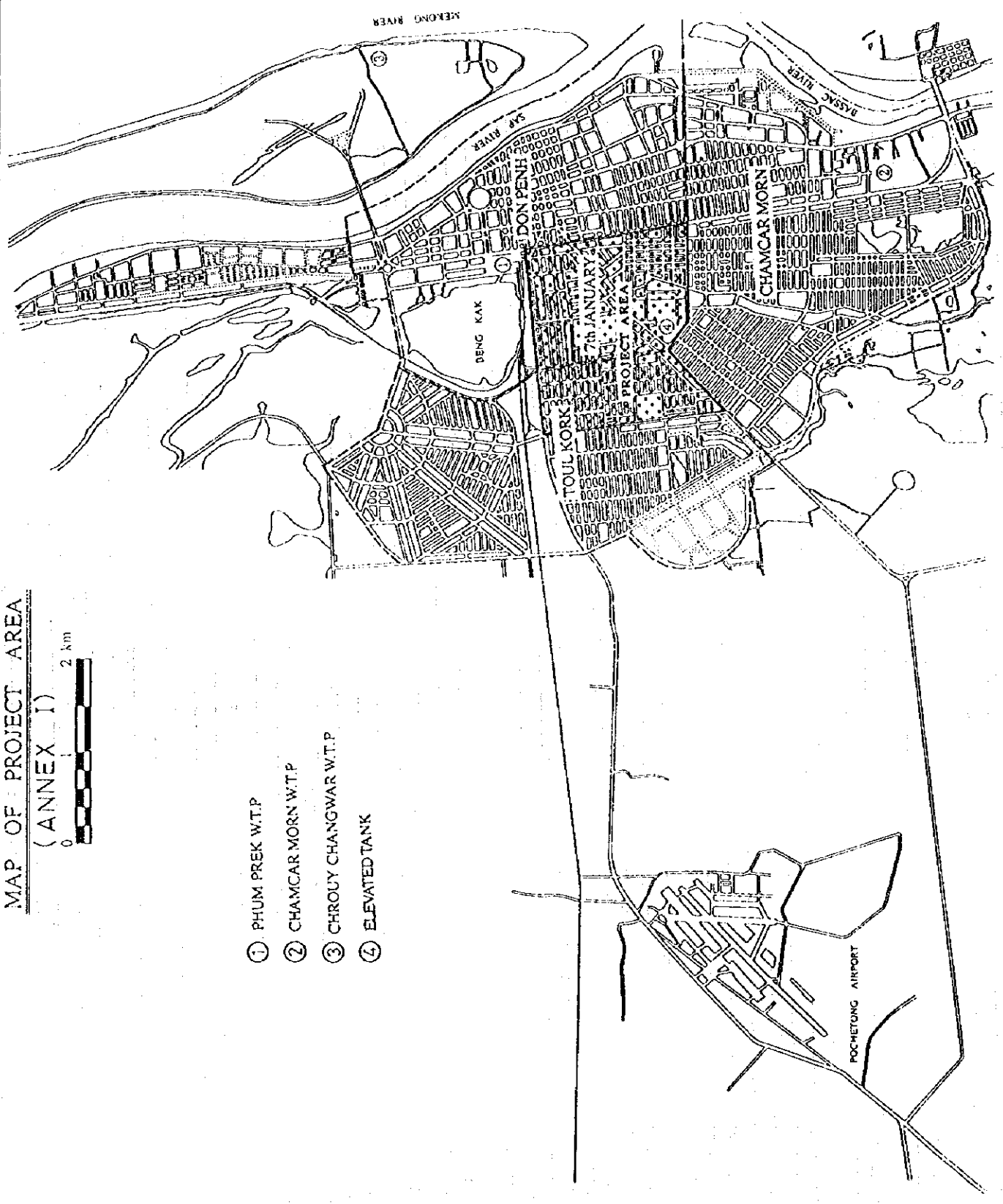
- 1) The Government of Cambodia will allocate the necessary budget and personnel for execution of the Project
- 2) The Team and PPWSA confirmed that no other project overlaps in the Project areas as far as the improvement of distribution pipelines are concerned.



MAP OF PROJECT AREA
(ANNEX I)



- ① PHUM PREK W.T.P
- ② CHAMCAR MORN W.T.P
- ③ CHROY CHANGWAR W.T.P
- ④ ELEVATED TANK



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ANNEX II

List of Equipment and Material

ITEM No.	DESCRIPTION	UNIT	QUANTITY
1	Water Meter 15mm diameter	Nos.	12,000
2	20mm diameter	Nos.	8,000
3	25mm diameter	Nos.	5,000
4	Hand operaterated Drilling Machine (for under Pressure drilling for PE and DIC Pipe) Size; Diameter 15mm,20mm,25mm	Sets	8
5	Size; Diameter 40mm,50mm	Sets	2
6	Pipe Locator	Sets	4
7	Auto Pipe Cutter with Spare Parts	Set	1
8	Pressure Test Pump	Unites	2

ANNEX III

Necessary measures to be taken by the Government of Cambodia on condition that Japan's Grant Aid is extended;

1. To secure the sites for the Project
2. To clear, level and reclaim the sites prior to the commencement of the construction
3. To undertake incidental outdoor works such as gardening, fencing, gates and exterior lighting in and around the sites
4. To exempt taxes and to take the necessary measures for customs clearance of the materials and equipment brought for the Project at the port of disembarkation
5. To exempt Japanese Nationals from customs duties, internal taxes and other fiscal levies which may be imposed in Cambodia with respect to the supply of the products and services under the verified contracts
6. To accord Japanese Nationals, whose services may be required in connection with the supply of products and the services under the verified contracts, such facilities as may be duration of their work
7. To use and maintain properly and effectively all the facilities constructed and equipment purchased under the Grant
8. 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

ANNEX IV

ON JAPAN'S GRANT AID PROGRAM

1. Japan's Grant Aid Procedures

(1) The Japan's Grant Aid Program is executed by the following procedures.

- Application (request made by a recipient country)
- Study (Preliminary Study / Basic Design Study conducted by JICA)
- Appraisal & Approval (Appraisal by the Government of Japan and Approval by the Cabinet of Japan)
- Determination of Implementation (Exchange of Notes between the both Governments)
- Implementation (Implementation of the Project)

(2) Firstly, an application or a request for a project made by the recipient country is examined by the Government of Japan (the Ministry of Foreign Affairs) to see whether or not it is suitable for Japan's Grant Aid. If the request is deemed suitable, the Government of Japan entrusts a study on the request to JICA (Japan International Cooperation Agency).

Secondly, JICA conducts the Study (Basic Design Study), using a Japanese consulting firm. If the background and objective of the requested project are not clear, a Preliminary Study is conducted prior to a Basic Design Study.

Thirdly, the Government of Japan appraises to see whether or not the Project is suitable for Japan's Grant Aid Program, based on the Basic Design Study report prepared by JICA and the results are then submitted for approval by the Cabinet.

Fourthly, the Project approved by the Cabinet becomes official when pledged by the Exchange of Notes signed by the both Governments.

Finally, for the implementation of the Project, JICA assists the recipient country in preparing contracts and so on.

2. Contents of the Study

1) Contents of the Study

The purpose of the Study (Preliminary Study/Basic Design Study) conducted on a project requested by JICA is to provide a basic document necessary for appraisal of the project by the Japanese Government. The contents of the Study are as follows:

- a) to confirm background, objectives, benefits of the project and also institutional capacity of agencies concerned of the recipient country necessary for project implementation,
- b) to evaluate appropriateness of the Project for the Grant Aid Scheme from a technical, social and economical point of view,
- c) to confirm items agreed on by the both parties concerning a basic concept of the project
- d) to prepare a basic design of the project,
- e) to estimate cost involved in the project.

Final project components are subject to approval by the Government of Japan and therefore may differ from an original request.

Implementing the project, the Government of Japan requests the recipient country to take necessary measures involved which are itemized on Exchange of Notes.

2) Selecting(a) Consulting Firm(s)

For smooth implementation of the study, JICA uses (a) consulting firm(s) registered. JICA selects (a) firm(s) through proposals submitted by firms which are interested. The firm(s) selected carry(ies) out a Basic Design Study and write(s) a report, based upon terms of reference made by JICA.

The consulting firm(s) used for the study is(are) recommended by JICA to a recipient country after Exchange of Notes, in order to maintain technical consistency and also to avoid possible undue delay in implementation caused if a new selection process is repeated.

(3) Status of a Preliminary Study in the Grant Aid Program

A Preliminary Study is conducted during the second step of a project formulation & preparation as mentioned above.

A result of the study will be utilized in Japan to decide if the Project is to be suitable for a Basic Design Study.

Based on the result of the Basic Design Study, the Government would proceed to the stage of decision making process (appraisal and approval).

It is important to notice that at the stage of Preliminary Study, no commitment is made by the Japanese side concerning the realization of the Project in the scheme of Grant Aid Program.

3. Japan's Grant Aid Scheme

1) What is Grant Aid?

The Grant Aid Program provides a recipient country with non reimbursable funds needed to procure facilities, equipment and services for economic and social development of the country under the following principles in accordance with relevant laws and regulations of Japan. The Grant Aid is not in a form of donation or such.

2) Exchange of Notes (E/N)

The Japan's Grant Aid is extended in accordance with the Exchange of Notes by both Governments, in which the objectives of the Project, period of execution, conditions and amount of the Grant etc. are confirmed.

3) "The period of the Grant Aid" means one Japanese fiscal year which the Cabinet approves the Project for. Within the fiscal year, all procedure such as Exchange of Notes, concluding a contract with (a) consulting firm(s) and (a) contractor(s) and a final payment to them must be completed.

4) Under the Grant, in principle, products and services of origins of Japan or the recipient country are to be purchased.

When the two Governments deem it necessary, the Grant may be used for the purchase of products or services of a third country origin.

However the prime contractors, namely, consulting, contractor and procurement firms, are limited to "Japanese nationals". (The term "Japanese nationals" means Japanese physical persons or Japanese juridical persons controlled by Japanese physical persons.)

5) Necessity of the "Verification"

The Government of the recipient country or its designated authority will conclude into contracts in Japanese yen with Japanese nationals. Those contracts shall be verified by the Government of Japan. The "Verification" is deemed necessary to secure accountability to Japanese tax payers.

6) Undertakings required to the Government of the recipient country

In the implementation of the Grant Aid, the recipient country is required to undertake necessary measures such as the following:

- i) to secure land necessary for the sites of the project and to clear and level the land prior to commencement of the construction work,
- ii) to provide facilities for distribution of electricity, water supply and drainage and other incidental facilities in and around the sites,
- iii) to secure buildings prior to the installation work in case the Project is providing equipment,
- iv) to ensure all the expenses and prompt execution for unloading, customs clearance at the port of disembarkation and internal transportation of the products purchased under the Grant Aid,
- v) to exempt Japanese nationals from customs duties, internal taxes and other fiscal levies which will be imposed in the recipient country with respect to the supply of the products and services under the Verified Contracts,
- vi) to accord Japanese nationals whose services may be required in connection with the supply of the products and services under the Verified Contracts, such facilities as may be necessary for their entry into the recipient country and stay therein for the performance of their work.

7) Proper Use

The recipient country is required to maintain and use facilities constructed and equipment purchased under the Grant Aid properly and effectively and to assign staff

necessary for their operation and maintenance as well as to bear all expenses other than those to be borne by the Grant Aid.

8) Re-export

The products purchased under the Grant Aid shall not be re-exported from the recipient country.

9) Banking Arrangement (B/A)

(a) The Government of the recipient country or its designated authority shall open an account in the name of the Government of the recipient country in an authorized foreign exchange bank in Japan (hereinafter referred to as "the Bank"). The Government of Japan will execute the Grant Aid by making payments in Japanese yen to cover the obligations incurred by Government of the recipient country or its designated authority under the contracts verified.

(b) The payments will be made when payment requests are presented by the Bank to the Government of Japan under an Authorization to Pay issued by the Government of the recipient country or its designated authority.

**MINUTES OF DISCUSSIONS
ON THE BASIC DESIGN STUDY
ON THE PROJECT FOR IMPROVEMENT OF WATER SUPPLY FACILITIES
IN PHNOM PENH, PHASE II
IN THE KINGDOM OF CAMBODIA**

In June 1996, Japan International Cooperation Agency (JICA) dispatched the Basic Design Study Team on the Project for improvement of water facilities in Phnom Penh, Phase II (hereinafter referred to as "the Project") to Cambodia, and through discussions, field survey, and technical examination of the results in Japan, JICA has prepared the Draft Basic Design Report of the Study.

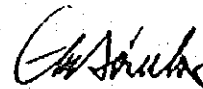
In order to explain and to consult Cambodia on the components of the Draft Basic Design Report, JICA sent to Cambodia the Draft Basic Design Report Explanation Team (hereinafter referred to as "the Team"), headed by Dr. Yasumoto MAGARA, Director, Department of Water Supply Engineering, the Institute of Public Health, Ministry of Health and Welfares, from 30th August to 4th September, 1996.

As a result of discussions, both parties confirmed the main items described on the attached sheet.

Phnom Penh, 4th September, 1996

真 藤 泰 基

Dr. Yasumoto MAGARA
Leader,
Draft Basic Design Explanation Team,
Japan International Cooperation Agency



Mr. Ek som Chan
Director,
Phnom Penh Water Supply Authority

WITNESSED BY



H.E. SITHA SETHARA
First Vice Governor,
Municipality of Phnom Penh

ATTACHMENT

1. Components of Draft Report

The Royal Government of Cambodia has agreed and accepted in principle the Draft Basic Design Report explained by the Team.

2. Japan's Grant Aid system

(1) The Royal Government of Cambodia will take necessary measures, described in Annex I, for the smooth implementation of the Project on condition that Japan's Grant Aid is extended to the Project.

(2) The Royal Government of Cambodia has understood the system of Japan's Grant Aid Scheme described in Annex II explained by the Team.

3. Further Schedule

JICA will make the Final Report in accordance with the confirmed items described in Annex III, and send it to the Royal Government of Cambodia around the end of October, 1996.

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ANNEX I

Necessary measures to be taken by the Royal Government of Cambodia on condition that Japan's Grant Aid is extended;

1. To secure the sites for the Project
2. To clear, level and reclaim the sites prior to the commencement of the construction
3. To undertake incidental outdoor works such as gardening, fencing, gates and exterior lighting in and around the sites
4. To exempt taxes and to take the necessary measures for customs clearance of the materials and equipment brought for the Project at the port of disembarkation
5. To exempt Japanese Nationals from customs duties, internal taxes and other fiscal levies which may be imposed in Cambodia with respect to the supply of the products and services under the verified contracts
6. To accord Japanese Nationals, whose services may be required in connection with the supply of products and the services under the verified contracts, such facilities as may be duration of their work
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ANNEX II

ON JAPAN'S GRANT AID PROGRAM

1. Japan's Grant Aid Procedures after the Study

(1) The Japan's Grant Aid Program is executed by the following procedures.

- **Study** (Preliminary Study / Basic Design Study conducted by JICA)
- **Appraisal & Approval** (Appraisal by the Government of Japan and Approval by the Cabinet of Japan)
- **Determination of Implementation** (Exchange of Notes between the both Governments)
- **Implementation** (Implementation of the Project)

(2) The Government of Japan appraises to see whether or not the Project is suitable for Japan's Grant Aid Program, based on the Basic Design Study report prepared by JICA and the results are then submitted for approval by the Cabinet.

The Project approved by the Cabinet becomes official when pledged by the Exchange of Notes signed by the two Governments.

Finally, for the implementation of the Project, JICA assists the recipient country in preparing contracts and so on.

2. Japan's Grant Aid Scheme

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2) Exchange of Notes (E/N)

The Japan's Grant Aid is extended in accordance with the Exchange of Notes by both Governments, in which the objectives of the Project, period of execution, conditions and amount of the Grant etc. are confirmed.

3) "The period of the Grant Aid" means one Japanese fiscal year which the Cabinet approves the Project for. Within the fiscal year, all procedure such as Exchange of Notes, concluding a contract with (a) consulting firm(s) and (a) contractor(s) and a final payment to them must be completed.

4) Under the Grant, in principle, products and services of origins of Japan or the recipient country are to be purchased.

When the two Governments deem it necessary, the Grant may be used for the purchase of products or services of a third country origin.

However the prime contractors, namely, consulting, contractor and procurement firms, are limited to "Japanese nationals". (The term "Japanese nationals" means Japanese physical persons or Japanese juridical persons controlled by Japanese physical persons.)

5) Necessity of the "Verification"

The Government of the recipient country or its designated authority will conclude into contracts in Japanese yen with Japanese nationals. Those contracts shall be verified by the Government of Japan. The "Verification" is deemed necessary to secure accountability to Japanese tax payers.

6) Undertaking required to the Government of the recipient country

In the implementation of the Grant Aid, the recipient country is required to undertake necessary measures such as the following:

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- ① to secure land necessary for the sites of the project and to clear and level the land prior to commencement of the construction work,
- ② to provide facilities for distribution of electricity, water supply and drainage and other incidental facilities in and around the sites,
- ③ to secure buildings prior to the installation work in case the Project is providing equipment,
- ④ to ensure all the expenses and prompt execution for unloading, customs clearance at the port of disembarkation and internal transportation of the products purchased under the Grant Aid,
- ⑤ to exempt Japanese nationals from customs duties, internal taxes and other fiscal levies which will be imposed in the recipient country with respect to the supply of the products and services under the Verified Contracts,
- ⑥ to accord Japanese nationals whose services may be required in connection with the supply of the products and services under the Verified Contracts, such facilities as may be necessary for their entry into the recipient country and stay therein for the performance of their work.

7) Proper Use

The recipient country is required to maintain and use facilities constructed and equipment purchased under the Grant Aid properly and effectively and to assign staff necessary for their operation and maintenance as well as to bear all expenses other than those to be borne by the Grant Aid.

8) Re-export

The products purchased under the Grant Aid shall not be re-exported from the recipient country.

9) Banking Arrangement (B/A)

- (a) The Government of the recipient country or its designated authority shall open an account in the name of the Government of the recipient country in an authorized foreign exchange bank in Japan (hereinafter referred to as "the Bank"). The Government of Japan will execute the Grant Aid by making payments in Japanese yen to cover the obligations incurred by Government of the recipient country or its designated authority under the contracts verified.

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(b) The payments will be made when payment requests are presented by the Bank to the Government of Japan under an Authorization to Pay issued by the Government of the recipient country or its designated authority.

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ANNEX III

NOTE OF DISCUSSIONS

After discussion with Draft Basic Design Explanation Team, the following were confirmed by the Royal Government of Cambodia.

1) PPWSA will take necessary measures to install tertiary pipes, service water pipes (including water meter) to give access of water to consumers in the Project Area, by using own materials in addition with the materials from the Grant as mentioned below:

A. Polyethylene pipe (including fittings) for tertiary distribution pipeline

①	D 90	8,500 m
②	D 63	12,500 m

B. Water meter

①	Dia. 15 mm	10,000 Nos.
②	Dia. 20 mm	4,500 Nos.
③	Dia. 40 mm	300.Nos.
④	Dia. 50 mm	200 Nos.

2) The Team requested that PPWSA should allocate the necessary budget and assign necessary personnel for the connection of service water pipes to consumers in order to finish the connection work in the duration of the Project.

The Team also requested that PPWSA should increase the number of customers by promoting new house connection in the Project Area.

3) Both parties confirmed that PPWSA will promote the planned ADB project of the transmission system to enhance the effectiveness of the Project.

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- 4) PPWSA mentioned that PPWSA would enhance the human resource program started from April 1997 by using its own training center.
- PPWSA asked the emergent request to dispatch JICA expert(s) of operation and maintenance of water supply system. The Team confirmed to convey the request of PPWSA to JICA.

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5. Cost Estimation Borne by the Recipient Country

Cost Estimation Borne by the Cambodian Side

1. Installation of Tertiary Distribution Pipeline(not included materials and depreciation or hire of machinery)

1) D63(φ 50)P.E Pipe ,L=12,500m

(1) Installation of Pipeline=12,500m × 9.95US\$/m =US\$124,375

(2) Re-Pavement Work =12,500m × 0.70m²/m × 10.0US\$/m² =US\$ 87,500

Sub-Total US\$211,875

2) D90(φ 75) P.E Pipe ,L=8,500m

(1) Installation of Pipeline=8,500m × 13.45US\$/m =US\$114,325

(2) Re-Pavement Work =8,500m × 0.80m²/m × 10.0US\$/m² =US\$ 68,000

Sub-Total US\$182,325

Grand Total US\$394,200

2. Installation of new Service Water Pipe(Installation Cost shall be paid by beneficiaries)

* φ 15mm Water Meter : 10,000houses × 130US\$/house=US\$1,300,000

* φ 20mm Water Meter : 4,500houses × 149US\$/house=US\$ 670,500

* φ 40mm Water Meter : 300houses × 223US\$/house=US\$ 66,900

* φ 50mm Water Meter : 200houses × 300US\$/house=US\$ 60,000

Total US\$2,097,400

3. Re-Connection of Existing Services Water Pipe

6,700houses × 50US\$/house=US\$335,000

DATA FOR TERTIARY & HOUSE CONNECTION PIPELINE
IN 7th JANUARY & TOUL KORK DISTRICT

1. COST ESTIMATION FOR TERTIARY PIPELINE

No.	Size of Pipe (mm)	Kind of Pipe	Unit Price of Pipe (US\$/m)	Length of Pipe (m)	Supply of Pipe (US\$)	Supply of Fittings (US\$)	Total Cost (US\$)	Unit Cost of Pipe Laying (US\$/m)	Total Cost of Laying (US\$)	Price for Repairing of Walkway			Total Cost (US\$)	Unit Price (US\$/m)
										Area (m ² /m)	Total Area (m ²)	Unit Price (US\$/m ²)		
1	D63 (φ 50)	HDPE	14.00	12,500	175,000.0	17,500.0	192,500.0	9.95	124,375.0	0.70	8,750.0	10.0	87,500.0	32.35
2	D 90 (φ 75)	HDPE	26.00	8,500	221,000.0	22,100.0	243,100.0	13.45	114,325.0	0.80	6,800.0	10.0	68,000.0	50.05
				21,000	396,000.0	39,600.0	435,600.0		238,700.0		15,550.0		155,500.0	829,800.0

Note : Depreciation or hire of machinery and repair charge of machinery are not included.

2. HOUSE CONNECTION WORKS
PRESENT

No.	Length of Pipe	Cost of house Connection		
		φ 15	φ 20	φ 40
1	1m ~ 10m	163	186	240
2	11m ~ 20m	222	240	316
3	21m ~ 30m	260	298	446
4	31m ~ 40m	316	352	538
5	41m ~ 50m	370	408	612

Note : Same as above 1.

Unit : m US\$

No.	Length of Pipe	Cost of house Connection		
		φ 15	φ 20	φ 40
1	1m ~ 10m	84	93	120
2	11m ~ 20m	111	120	158
3	21m ~ 30m	130	149	223
4	31m ~ 40m	158	176	269
5	41m ~ 50m	185	204	306

* Average cost for new house connection works including water meter (Installation cost shall be paid by beneficiaries)

φ 15 : 130.0 US\$/house
φ 20 : 149.0 US\$/house
φ 40 : 223.0 US\$/house
φ 50 : 300.0 US\$/house

* Average cost for re-connection works (Installation cost shall be paid by PPWSA)
φ 15 - φ 20 : 50.0 US\$/house

3. BUDGET FOR DISTRIBUTION SYSTEM

No.	Year	Laying of Pipe		Cleaning of Pipe		Air Valve		Fire Hydrant		Water leakage		Amount in		Remarks
		Length of Pipe (m)	Amount (US\$)	Length of Pipe (m)	Amount (US\$)	Qty	Amount (US\$)	Qty	Amount (US\$)	Amount (US\$)	Year (US\$)			
1	1993	7,780	77,800.0									77,800.0	Pipe Supply by French Grant Aid	
2	1994	9,395	140,925.0	7,800	39,000.0							179,925.0	Pipe Supply by French Grant Aid & UNDP/WB	
3	1995	25,186	377,790.0	47,764	238,820.0	20	2,000.0	180	18,000.0			642,610.0	Pipe Supply by UNDP/WB	
4	1996	59,999	899,985.0	82,768	413,840.0	38	11,400.0	180	18,000.0			1,343,225.0	Pipe Supply by French Grant Aid & WB Loan	
	Total	102,360	1,496,500.0	138,332	691,660.0	58	17,400.0	20	2,000.0	360	56,000.0	2,243,560.0		

Note : Same as above 1 & 2

JICA