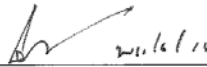



4-4 Minutes of Discussion on 13 June 2011

MINUTES OF THE MEETING ON 13<sup>TH</sup> JUNE 2011  
ON  
PREPARATORY STUDY  
ON  
REHABILITATION OF KILLINOCHCHI WATER SUPPLY SCHEME  
IN  
DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA

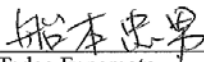
Agreed on 13<sup>th</sup> June 2011

  
Mr. D.S.D. Jayasiriwardene  
Deputy General Manager  
Planning & Design Section,  
National Water Supply & Drainage Board

D.S.D. JAYASIRIWARDENE  
Deputy General Manager  
(Planning & Design)  
N.W.S. & D.B.  
Ratmalana.

  
Mr. Duleep Goonewardene  
Deputy General Manager  
North,  
National Water Supply & Drainage Board

Eng. Duleep Goonewardene  
Deputy General Manager (North)  
National Water Supply & Drainage Board  
Vavuniya.

  
Mr. Tadao Funamoto  
Chief Consultants  
JICA Study Team

## MINUTES OF THE MEETING

- I. Date and Time : 13<sup>th</sup> June 2011, 13:30-
- II. Place : NWSDB Killinochchi OIC Site
- III. Present : As shown in the attached attendants list
- IV. Discussions

The meeting was chaired by Mr. D.S.D Jayasiriwardene; Deputy General Manager, Planning & Design Section NWSDB. In the meeting mainly two subjects were discussed and confirmed, i.e. 1) the water supply system demarcation between the components under the Japan's Aid rehabilitation and the components taken under NWSDB's own scheme, and 2) the demarcation between the components taken under the Japan's Aid rehabilitation scheme and components taken under 2KR scheme, and.

### 1. Water Supply System Demarcation between the Japan's Aid Rehabilitation Scheme and NWSDB's Own Scheme

- 1) JICA Study Team explained the Japan's Aid rehabilitation scheme proposal of water supply system as shown in **Annex-1**.
- 2) Regarding the 1,000 m<sup>3</sup> water tower the location is planned to be not inside the WTP premises but in the Killinochchi Central College premises for two reasons; to keep the WTP site for future augmentation of the plant, and the rigid underground soil condition of the Killinochchi Central College site.
- 3) Along the A-9 Road NWSDB will implement the water pipe crossings (including PVC pipe and RC casing) prior to the Japan's Aid rehabilitation scheme at the locations where RDA, NWSDB and JICA Study Team agreed on 30<sup>th</sup> May 2011.
- 4) A typical A-9 Road water pipe crossing section is as shown in **Annex-2**. Basically water pipes will be installed along outside of the curb at 15m from the road centre except some stretches. The stretches where the widths of the road are less than 15m, water pipes shall be installed outside from the pavement which will be covered by current road renovation works. RDA will check the locations for those stretches and report to NWSDB and JICA Study Team if any consideration is required by 24<sup>th</sup> June 2011.
- 5) Regarding the water supply network the Japan's Aid rehabilitation scheme will cover approximately 40 km distribution system (excluding transmission) only spread over the area (preferable up to 110 mm diameter) as tentatively shown in **Annex-3-1** and **3-2**.
- 6) In addition to the above-mentioned network NWSDB will construct approximately 40 km water distribution pipelines also as shown in **Annex-3-1** and **3-2**.

- 7) As to the house connections the Japan's Aid rehabilitation scheme will provide fixing materials including pipes and water meters for both the Japan's Aid rehabilitation scheme distribution lines and NWSDB's own scheme lines.
- 8) NWSDB agreed the demarcation of the two components after the confirmation on site.

## **2. Demarcation between the Japan's Aid Rehabilitation Scheme and 2KR**

- 1) JICA Study Team explained the Japan's Aid rehabilitation scheme proposal as follows,
  - The components which will be implemented under 2KR are as shown in **Annex-4-1**, and **4-2**.
  - Those will be implemented prior to the Japan's Aid rehabilitation scheme and there will no overlap between two schemes.
- 2) NWSDB agreed that a package plant will be installed separately from the existing water treatment plant.
- 3) Regarding to the rehabilitation of the administration building (including clear water reservoir and high lift pump house), NWSDB requested to implement prior to the commencement of the Japan's Aid rehabilitation scheme through 2KR.
- 4) JICA Study Team agreed that all of the civil works and architectural works including building utilities such as lighting, etc. for the administration building will be implemented by NWSDB under 2KR scheme.
- 5) The Japan's Aid rehabilitation scheme will take care of water treatment process mechanical and electric equipment works for the administration building.

## **3. Others**

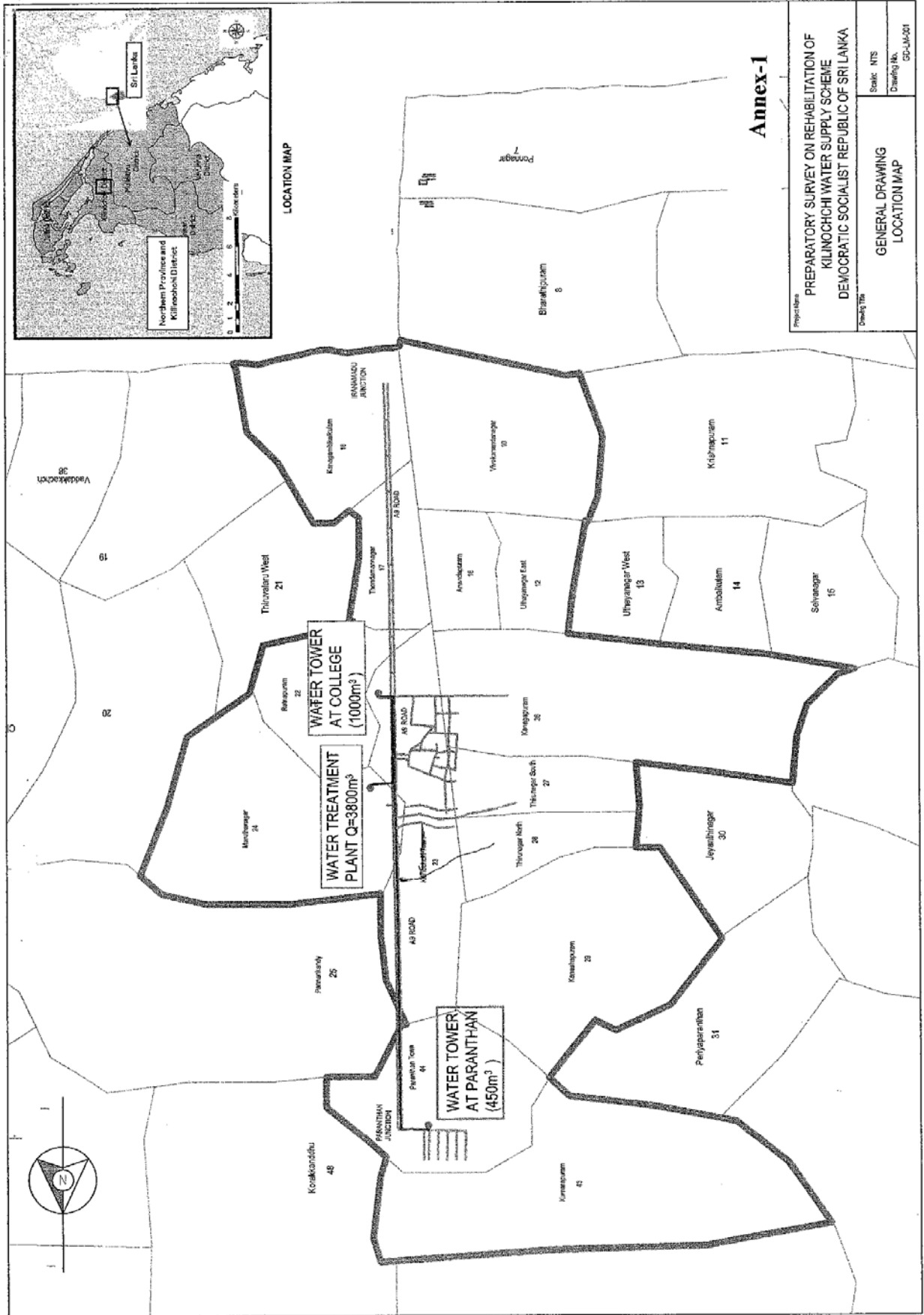
- 1) JICA Study Team requested based on the discussion with Mines Action office on 2<sup>nd</sup> June 2011 NWSDB will continually discuss and facilitate the Technical Survey (TS) for mines and UXOs of at the premises of WTP up to October 2011 and the TA for the entire pipeline routes which the Japan's Aid rehabilitation scheme covers up to November 2011.
- 2) Through discussion with NWSDB and JICA Study Team a draft of the equipment list procured under the Japan's Aid rehabilitation scheme has been tabulated as **Annex-5**.
- 3) JICA Study Team submitted draft conceptual design drawings for the Japan's Aid rehabilitation scheme on the site. NWSDB agreed to clarify the draft and inform their comment to the JICA Study Team by June 28 2011 in case it is needed to be modified.



Attachment: List of Participants

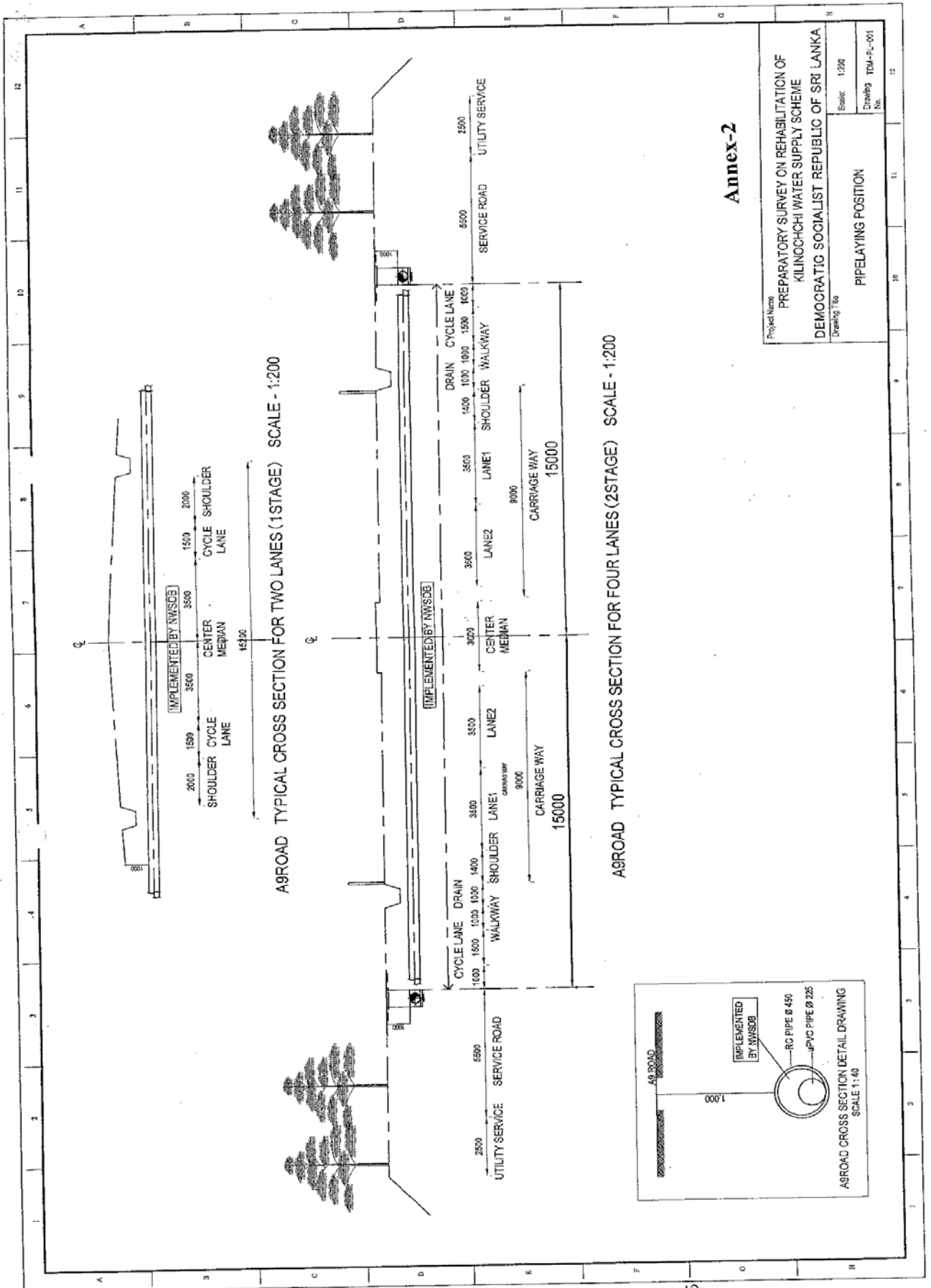
Mr. D.S.D Jayasiriwardene	NWSDB Planning & Design Section	Deputy General Manager
Mr. Duleep Goonewardene	NWSDB North	Deputy General Manager
Mr. B. L. Gunarathne	NWSDB Planning & Design Section	Assistant General Manager
Mr. R.B. Thavendrakumar	NWSDB NR-Jaffna	Regional Manager
Mr. R. Suveenthan	NWSDB NR-Jaffna	Engineer
Mr. K. Ravichandran	NWSDB NR-Jaffna	Engineer
Mr. R. M. Gamini	RDA	Project Director
Mr. C. Vatharakumar	RDA	Project Engineer
Mr. P. Chandrasiri	CECB	Resident Engineer
Mr. P. G. D. L. Gunawardara	CECD	Site Engineer
Mr. Tadao Funamoto	JICA Study Team	Chief Consultant
Mr. Toru Yagi	JICA Study Team	Water Treatment Specialist
Mr. Daisuke Yashiro	JICA Study Team	Water Pipeline Specialist

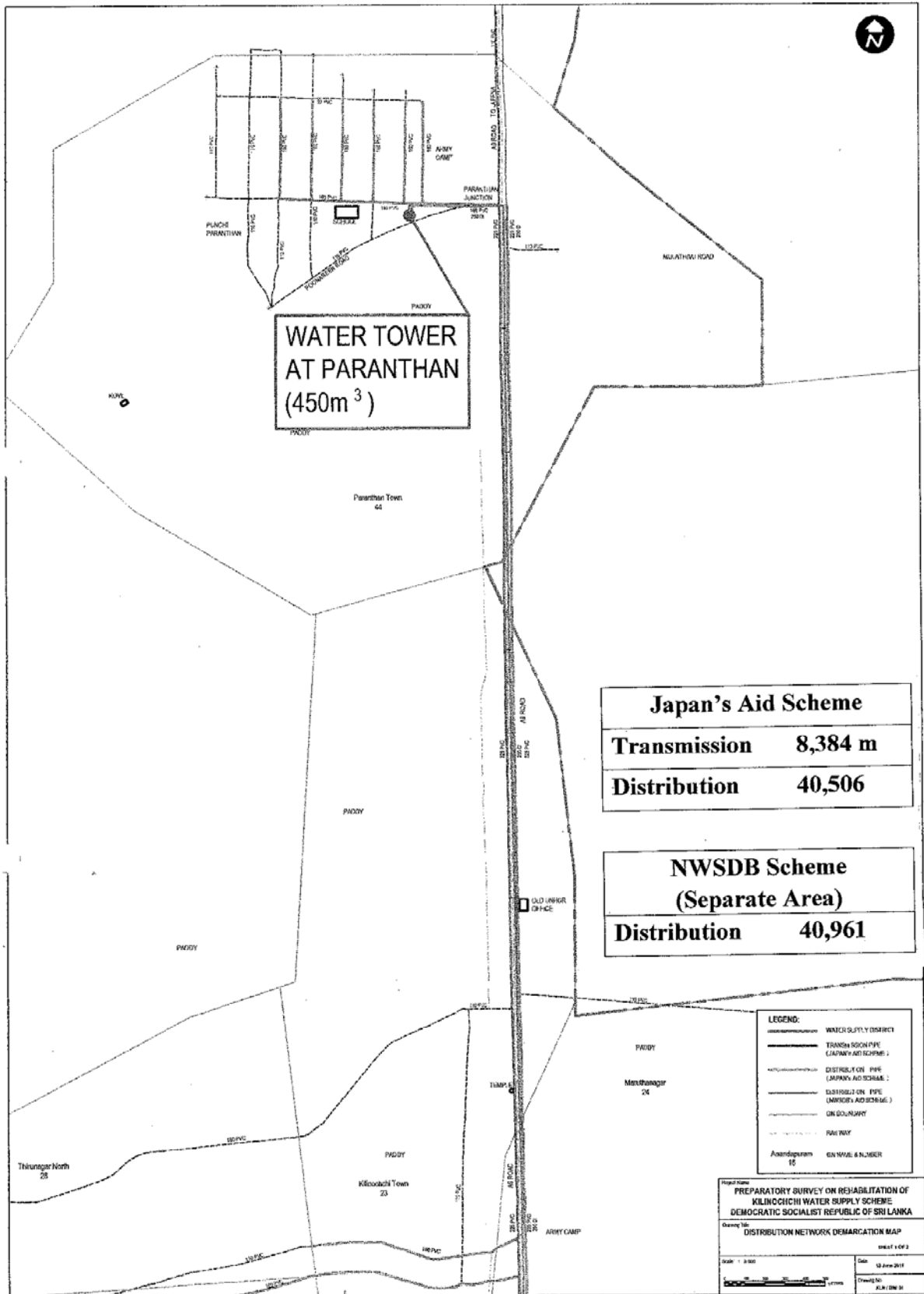
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<b>Annex-1</b>	
PREPARATORY SURVEY ON REHABILITATION OF KILINOCHI WATER SUPPLY SCHEME DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA	
Project Name GENERAL DRAWING LOCATION MAP	Scale: NTS Drawing No. GS-UM-001

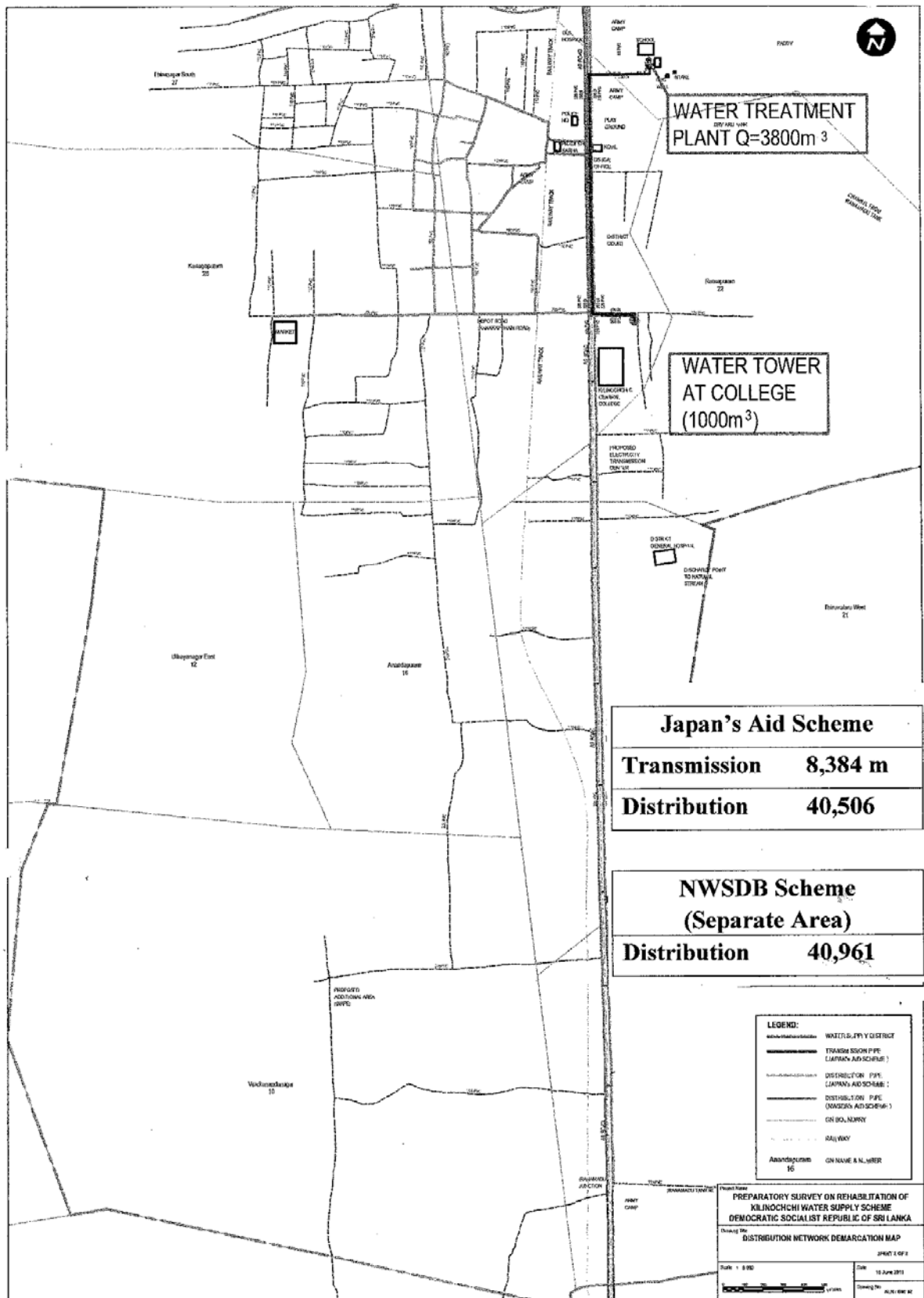
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Annex-3-2



Japan's Aid Scheme	
Transmission	8,384 m
Distribution	40,506

NWSDB Scheme (Separate Area)	
Distribution	40,961

LEGEND:	
	WATER SUPPLY DISTRICT
	TRANSMISSION PIPE (JAPAN'S AID SCHEME)
	DISTRIBUTION PIPE (JAPAN'S AID SCHEME)
	DISTRIBUTION PIPE (NWSDB SCHEME)
	CANAL/NURVEY
	RAILWAY
	ON NAME & NUMBER

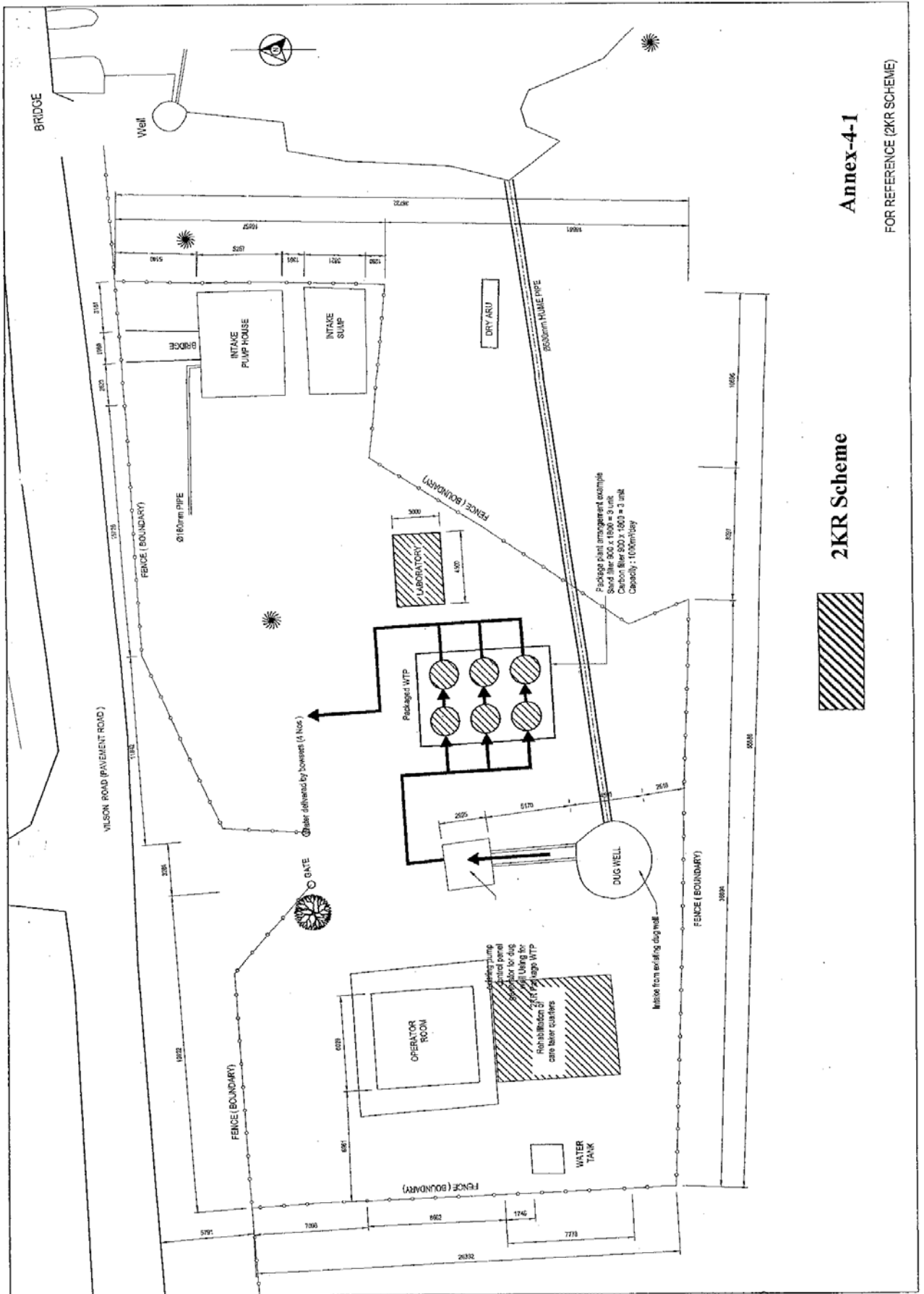
Project Name: PREPARATORY SURVEY ON REHABILITATION OF KILINOCHCHI WATER SUPPLY SCHEME  
 DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA

Sheet No: DISTRIBUTION NETWORK DEMARCATION MAP  
 SHEET 1 OF 2

Scale: 1:500  
 Date: 10 June 2011  
 Drawing No: PLN/001/02

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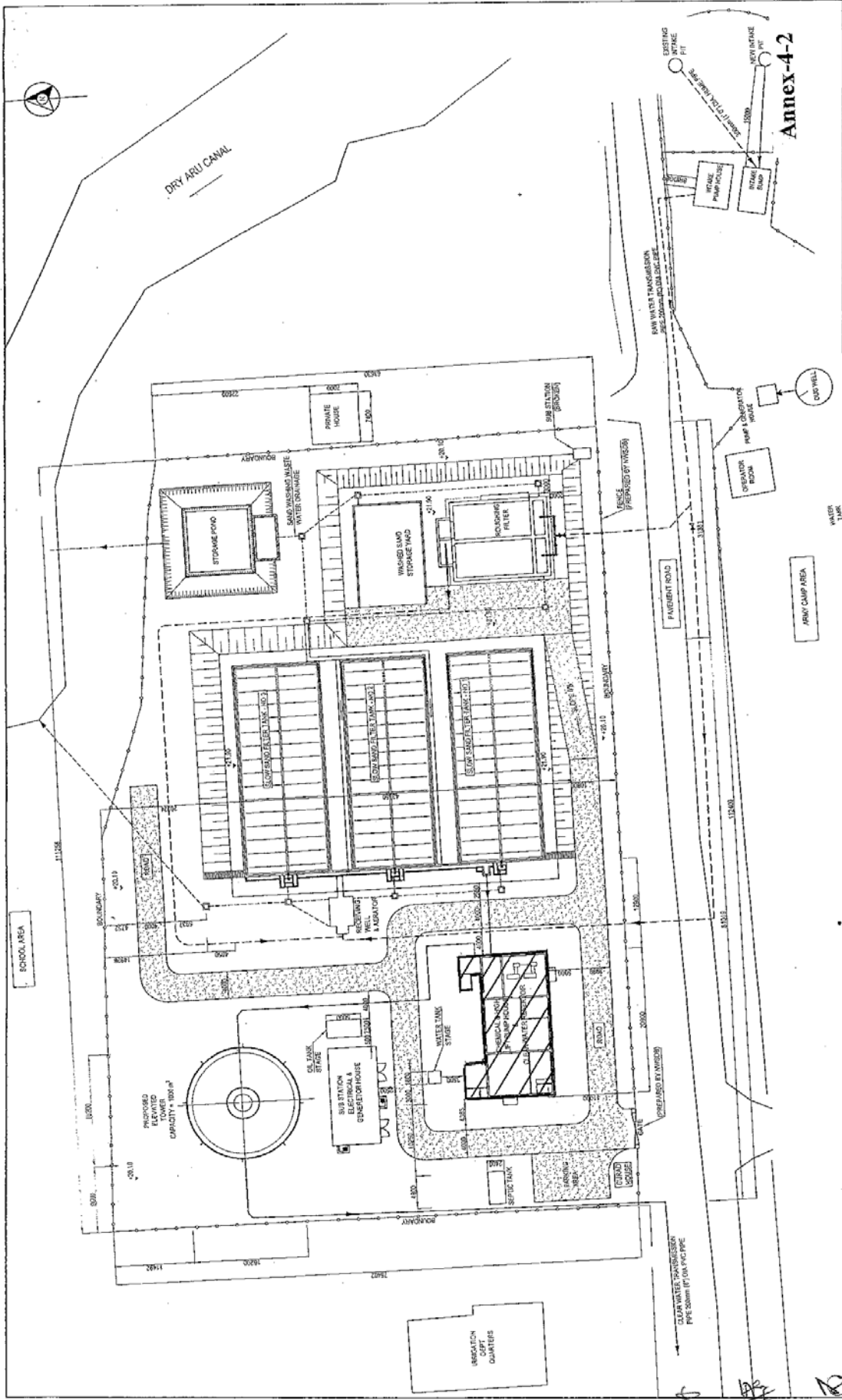




**2KR Scheme**

**Annex-4-1**

FOR REFERENCE (2KR SCHEME)



**Annex-4-2**

Project Name  
 PREPARATORY SURVEY ON REHABILITATION OF  
 KILLINOCHCHI WATER SUPPLY SCHEME  
 DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA

Drawing Title  
 GENERAL DRAWING  
 WATER TREATMENT PLANT  
 LAYOUT PLAN

Scale: 1:500  
 Drawing No. GAAP-001

**2KR Scheme**



**The List of Equipment to be procured for O&M for Water Supply System**

**A. Vehicles for O&M Works**

No.	Items	Quantity	Specifications	Remarks
1	Crew Cab	1 unit		NWSDB requested
2	Pick-up Truck	1 unit		NWSDB requested

**B. O&M Equipment**

No.	Items	Quantity	Specifications	Remarks
1	Under-pressure Tapping Machine	2 units	Install 3/4" or 1" corporation stops to 4" – 48" under pressure pipe	
2	Personal Computer	2 units	Desk Top 17" LD monitor, HD more than 300 GB, CPU more than 1.5 GHz memory more than 2GB	
3	LCD Projector	1 unit	Color 2,500 lm, USB connection	

**C. Laboratory Instruments**

No.	Items	Quantity	Measurement Range and Specifications	Remarks
1	Turbidity Meter	1 unit	0 to 800 NTU	
2	Colorimeter	1 unit	HACH DR2700 or Equivalent +10 reagents	
3	Micro Scope	1 unit	Desk Top Type	
4	Electrical Conductivity Meter	2 units	0.1 mS/m to 10 S/m	Temperature can also be measured (0 to 100°C)
5	pH Meter	2 units	pH 0.00 to 14.00	
6	Residual Chlorine Meter	2units	0 to 2.00 mg/L	
7	DO Meter	2 units	0 to 20.00 mg/L	
8	Refrigerator	1 unit	2 Door Type, 480 L Class	

**D. Laboratory Equipment Package**

No.	Items	Quantity	Dimensions and Specifications	Remarks
1	Laboratory Working Station	1 unit		

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Kilinochchi Water Supply Scheme - Description of Items coming under 2KR and JICA Grant  
(16.06.2011)

S No	Item	Covered under 2KR	Covered under JICA Grant
1	Rehabilitation of Intake site and Low lift pump house	Package treatment plant and intake pipe line will be installed.	New Intake pit to be built with new set of pipes. The rehabilitated L/L Pump House can be used but modification to suit the new pump to be provided
2	Supply & Installation of Low lift Pump	L/L Pump to be installed to suit the package plant	L/L Pump to be installed to suit the whole Rehabilitation scheme
3	Power Supply	To be provided package treatment plant and administration building	Intake and treatment plant
4	Rehabilitation of High Lift Pump House	H/L Pump House will be rehabilitated to previous working condition	Modification to suit new H/L Pump to be provided
5	Rehabilitation of Ground Reservoir (Clear water)	To be rehabilitated to the previous working condition	Any additional capacity to be included
6	Laboratory Equipment	Temporary mini laoratory with basic equipments	Will be supplied
7	Vehicles	Provision for vehicles, water bowsers etc	NWSDB requested one pickup and one crew cab
8	Raw water main	New hume pipe will be laid in between Dry aru and existing Dug well	New raw water main to be installed with adequate capacity for future demand

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**To be Implemented with 2KR**

Item No	Description
1	Laying of Hume pipe in between Dry aru and Dug well.
2	Rehabilitation of High Lift Pump House, Ground Reservoir (Clear Water), Care taker quarters and Administration building.
3	Provision of Vehicles (Lorry) and water bowsers.
4	Establishment of Mini Laboratory with basic equipment.
5	Package Water Treatment Plant and required pumps
6	Supply of Pipes, Plastic tanks and Specials for O&M activities
7	Road Crossing Work for interconnection distribution system along A9 Road.
8	Supply of Tools, Dewatering Pumps and Equipment.
9	Establishing Small Workshop with necessary Equipment

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## 4-5 Minutes of Meetings on DBD Report Explanation

**THE MINUTES OF MEETINGS  
ON  
THE MISSION FOR THE PREPARATORY SURVEY (PHASE 3)  
ON  
REHABILITATION OF KILLINOCHCHI WATER SUPPLY SCHEME  
IN  
DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA  
(EXPLANATION OF DRAFT FINAL REPORT)**

In May 2011, the Japan International Cooperation Agency (hereinafter referred to as "JICA") dispatched the Preparatory Survey (Phase 2) Team on Rehabilitation of Killinochchi Water Supply Scheme (hereinafter referred to as "the Project") to the Government of the Democratic Socialist Republic of Sri Lanka (hereinafter referred to as "GoSL") and through discussions, field survey, and technical examination of the results in Japan, JICA prepared a draft final report of the survey.

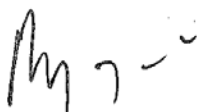
In order to explain and to consult the officials concerned of GoSL on the components of the draft report, JICA dispatched to the Democratic Socialist Republic of Sri Lanka the Preparatory Survey (Phase 3) Team (hereinafter referred to as "the JICA Mission"), which was headed by Mr. Yoshiki Omura, Senior Advisor, JICA, from 9 to 15 October 2011.

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

Colombo, 14 October 2011



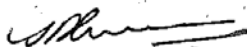
**Yoshiki Omura**  
Leader,  
The Preparatory Survey Team,  
Japan International  
Cooperation Agency (JICA)



**A. Abeygunasekara**  
Secretary,  
Ministry of Water Supply and  
Drainage



**M P D U K Mapa Pathirana**  
Director General,  
Department of External Resources,  
Ministry of Finance



**Karunasena Hettiarachchi**  
Chairman,  
National Water Supply and  
Drainage Board

## ATTACHMENT

### 1. Components of the Draft Final Report

The Sri Lankan side agreed and accepted in principle the components of the draft final report as explained by the JICA Mission.

### 2. Japan's Grant Aid Scheme

The Sri Lankan side understood the scheme of Japan's Grant Aid and would take the necessary measures and allocate necessary budget for smooth implementation of the Project, as a condition for the Japanese Grant Aid to be implemented. The Grant Aid Scheme is described in the Annex-4 of the Minutes of Meetings signed by the Sri Lankan side and the JICA Mission (hereinafter referred to as "both sides") on 13 May 2011.

### 3. Responsible and Implementing Agency

Both sides reconfirmed the responsible ministry and implementing agency as follows:

- 1) The Responsible Ministry is the Ministry of Water Supply and Drainage;
- 2) The Implementing Agency is the National Water Supply and Drainage Board (hereinafter referred to as "NWSDB").

### 4. Schedule of the Survey

The Sri Lankan side will inform JICA of its comments on the Draft Final Report by 31 October 2011, and JICA will finalize the report and send it to the GoSL by 31 December 2011.

### 5. Other relevant issues

In addition to the issues recorded in the Minutes of Meetings signed on 3 March 2011 and on 13 May 2011, the followings were discussed and confirmed by both sides:

#### 5-1) Components of the Project

The Sri Lankan side agreed to the components of the Project described in **Annex-1**.

#### 5-2) Project cost estimate and budgetary arrangement

The JICA Mission explained to the Sri Lankan side the estimated project as attached in **Annex-2**.

Both sides confirmed that this cost estimate was provisional and would be examined further by the Government of Japan for its final approval. Furthermore, both sides confirmed that this project cost estimate is confidential, and should never be duplicated in any forms or released to any other parties until the relevant contracts are awarded by NWSDB in order to secure fairness of tender procedure.

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**5-3) Service area of the Project**

Both sides reconfirmed the service areas, the locations of principal facilities, and the routes of transmission and distribution pipelines as shown in **Annex-3**.

**5-4) Demining and UXO disposal**

Both sides confirmed the progress of the Technical Survey (TS) on landmine and unexploded ordnance (UXO) as follows:

- 1) The premise of Killinochchi Water Treatment Plant and Water Towers: NWSDB completed the TS, and submitted the certificate of demining and UXO disposal issued by the UN Mine Action Office to the JICA Mission;
- 2) The routes of transmission and distribution mains: NWSDB completed approximately 70 percent of the TS, and NWSDB will submit the certificate to JICA by 30 November 2011 as agreed in the Minutes of Meetings signed on 13 May 2011.

**5-5) Road crossing pipeline across the expanded A9 road**

Both sides confirmed that NWSDB completed the installation of 16 road crossing pipelines across the expanded A9 Road. NWSDB will send the as-built drawings of the road crossing pipelines to JICA by 21 October 2011.

**5-6) Soft components of the Project**

The Project would implement the training on the following fields for the smooth operation and maintenance of the new water supply system as a soft component program. The Sri Lankan side agreed and committed to assign responsible staff in Killinochchi office one month before the completion of the plant construction.

- 1) Water treatment plant operation
- 2) Water Distribution Network maintenance
- 3) House connection and water meter installation
- 4) Mechanical/electrical facility maintenance
- 5) Water quality monitoring and control

**5-7) Other undertakings of the Sri Lankan side**

The Mission explained to the Sri Lankan side its undertakings as listed in **Annex-4** and the Sri Lankan side understood and agreed to execute them. The following items are to be emphasized:

**1) Payment of tax and customs duties**

Both sides confirmed that NWSDB shall take the necessary measures to facilitate the project implementation, such as payment of Value Added Tax, customs duties, any other taxes and fiscal levy charges in Sri Lanka arisen from the Project activities.



**2) Wastewater treatment from the Killinochchi general hospital and the army camp**

NWSDB secured the budget and agreed to construct and operate the wastewater treatment facilities for treating both wastewater from the Killinochchi general hospital and the army camp as agreed on the Minutes of Meeting signed on 13 May 2011.

**3) Installation of the distribution pipes and 1,500 house connections**

NWSDB agreed to secure the funds in 2012, 2013 and 2014 for the procurement of the approximately 45 km distribution pipes and the installation those pipes and the 1,500 house connections which will be provided under the grant aid, and submitted the tentative installation schedule as shown in **Annex-5** to the JICA Mission. Both sides confirmed that laying 45km distribution pipelines will be completed before the completion of the grant component and the 1,500 house connections will be installed within one year after the completion of the Project.

- Annex-1 The Components of the Project
- Annex-2 Project Cost Estimate
- Annex-3 Service Area of the Project
- Annex-4 Major Undertakings to be taken by Both Side
- Annex-5 Installation Schedule of Distribution Pipelines and House Connections

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## Annex-1: Components of the Project

**Table 1-A: Japanese Scope**

Facility	Components
Water Intake	<ul style="list-style-type: none"> <li>- New Construction: Water Intake Pit, Intake Pumps (2.85m<sup>3</sup>/min×13 m×11 kW×2sets), Control Panels, Flow Meter</li> <li>- Rehabilitation: Intake Tank, Intake Pump House</li> </ul>
Raw Water Transmission Pipe	<ul style="list-style-type: none"> <li>- New Construction: Diameter 200mm, L=15 m (DI)</li> <li>- Rehabilitation: Diameter 200mm, L=0.2 km (DI and PVC)</li> </ul>
Water Treatment	<ul style="list-style-type: none"> <li>- Design Water Flow: 3,800m<sup>3</sup>/day (Maximum Daily Water Demand)</li> <li>- New Construction: Roughing Filter, Electrical &amp; Generator House, Wash Water Storage Pond, Washed Sand Storage Yard, Guard House, Internal Pipes within sites, Internal Works within sites, Transmission Pumps (2.64m<sup>3</sup>/min×41m×30kW×2set), Generator, Panels, Chlorination Facility</li> <li>- Rehabilitation: Intake Tank, Aerator, Slow Sand Filter, Pump &amp; Chemical House (Supporting frame work for chain hoist)</li> </ul>
Transmission Pipe	<ul style="list-style-type: none"> <li>- WTP ~ Killinochchi Central College Water Tower</li> <li>- New Installation: Diameter 300mm, L=1.7 km (PE &amp; DI)</li> <li>- Killinochchi Central College Water Tower ~ Paranthan Water Tower</li> <li>- New Installation: Diameter 250mm, L=6.7 km (PE &amp; DI)</li> </ul>
Water Tower	<ul style="list-style-type: none"> <li>- New Construction: 1,000m<sup>3</sup>×1 (Killinochchi Central College site)</li> <li>- New Construction: 450m<sup>3</sup>×1 (Paranthan Town site)</li> </ul>
Distribution Pipe	<ul style="list-style-type: none"> <li>- New Installation: Diameter 160mm ~ 400mm, L=41.8km (PVC&amp; DI)</li> </ul>
Procurement Equipment	<ul style="list-style-type: none"> <li>- House Connection</li> <li>- Materials of House Connection: 1,500sets (Pipes, Fittings, Ferrules, Saddles and Water Meters)</li> <li>- Laboratory Instruments</li> <li>- Colorimeter×1, Turbidity Meter×1, Microscope×1, Electrical Conductivity Meter×2, pH Meter×2, Residual Chlorine Meter×2, DO Meter×2, Refrigerator×1, Laboratory Equipment×1set (Laboratory Equipment, Shelf, Chair)</li> <li>- Operation and Maintenance Equipment</li> <li>- Under-pressure Tapping Machine×2, PC×2, LCD Projector×1</li> </ul>
Soft Component	<ol style="list-style-type: none"> <li>1) Water Treatment Plant Operation and Maintenance</li> <li>2) Water Distribution System Operation and Maintenance</li> <li>3) House Connection and Meter Installation</li> <li>4) Mechanical / Electrical Facility Maintenance</li> <li>5) Water Quality Monitoring and Control</li> </ol>

**Table 1-B: Sri Lankan Scope**

Facility	Components
Miscellaneous Works at Water Treatment Plant and Water Tower Site	<ul style="list-style-type: none"> <li>- Construction of gates and perimeter fences around the facilities for the water treatment plant, Killinochchi Central College water tower and Paranthan water tower.</li> </ul>
House Connection Works	<ul style="list-style-type: none"> <li>- Installation of 1,500 house connections (Pipes, Fittings, Ferrules, Saddles and Water Meters)</li> </ul>
Wastewater Treatment	<ul style="list-style-type: none"> <li>- Construction of wastewater treatment system for Killinochchi General Hospital and Army Camp</li> </ul>
Laying of Distribution Pipe	<ul style="list-style-type: none"> <li>- Installation of approximately 45km distribution pipe</li> </ul>

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## Annex-2: Project Cost Estimate

Table 2-A: Cost borne by the Government of Japan

Item	Project Cost (Unit: Million JPY)
Rehabilitation of Water Intake Facility	1.8
Construction of Roughing Filter	13.0
Rehabilitation of Aerator	0.6
Rehabilitation of Slow Sand Filter	3.7
Construction of Washed Water Storage Pond	1.4
Construction of Washed Sand Storage Yard	2.1
Construction of Electric and Generator House	6.9
Pipe Installation Works in Water Treatment Plant Site	8.9
Miscellaneous Works in Water Treatment Plant Site	10.2
Construction of Guard House	1.2
Rehabilitation of Pump and Chemical House (Supporting frame work for chain hoist)	0.2
Construction of Killinochchi Central College Water Tower	44.6
Construction of Paranthan Water Tower	37.4
Transmission Pipe Installation Works from WTP to Killinochchi Central College Water Tower	12.5
Transmission Pipe Installation Works from Killinochchi Central College Water Tower to Paranthan Water Tower	38.3
Distribution Pipe Installation Works along A9 Road	169.1
Distribution Pipe Installation Works in Killinochchi Area	88.7
Distribution Pipe Installation Works in Paranthan Area	17.2
Mechanical Works	35.4
Electrical Works	54.6
Transportation of Equipment	3.6
Procurement of Equipment	
- Service Pipe and Meter	
- Equipment for Water Quality Analysis	
Turbidity Meter	
Colorimeter	
Microscope	
Electric Conductivity Meter	
pH Meter	
Residual Chlorine Meter	
Dissolved Oxygen Meter	
Refrigerator	
Laboratory Equipment	
- Equipment for Operation and Maintenance	
Under Pressure Tapping Machine	
PC	
LCD Projector	
Soft Component (Staff Training in the Following Fields)	
1) Water Treatment Plant Operation and Maintenance	
2) Water Distribution System Operation and Maintenance	
3) House Connection and Meter Installation	
4) Mechanical Electrical Facility Maintenance	
5) Water Quality Monitoring and Control	
Detailed Design and Construction Supervision	98.8
Total	676.5

**Table 2-B: Costs to be borne by the Government of Sri Lanka**

Item	Estimated Expenditure (Unit: LKR)
- Miscellaneous Works in Water Treatment Plant site, in Killinochchi Central College Water Tower site and in Paranthan Water Tower site	51 million Rs
- Wastewater Treatment System for Killinochchi General Hospital and Army Camp	36 million Rs
- Laying of Distribution Pipes (approximately 45km)*	285 million Rs
- <b>Total</b>	372 million Rs (279 million JPY)

Exchange rate (As of June 2011): 1 Rs = 0.749 JPY

\*Funding arrangement will be later agreed between GoSL and NWSDB.

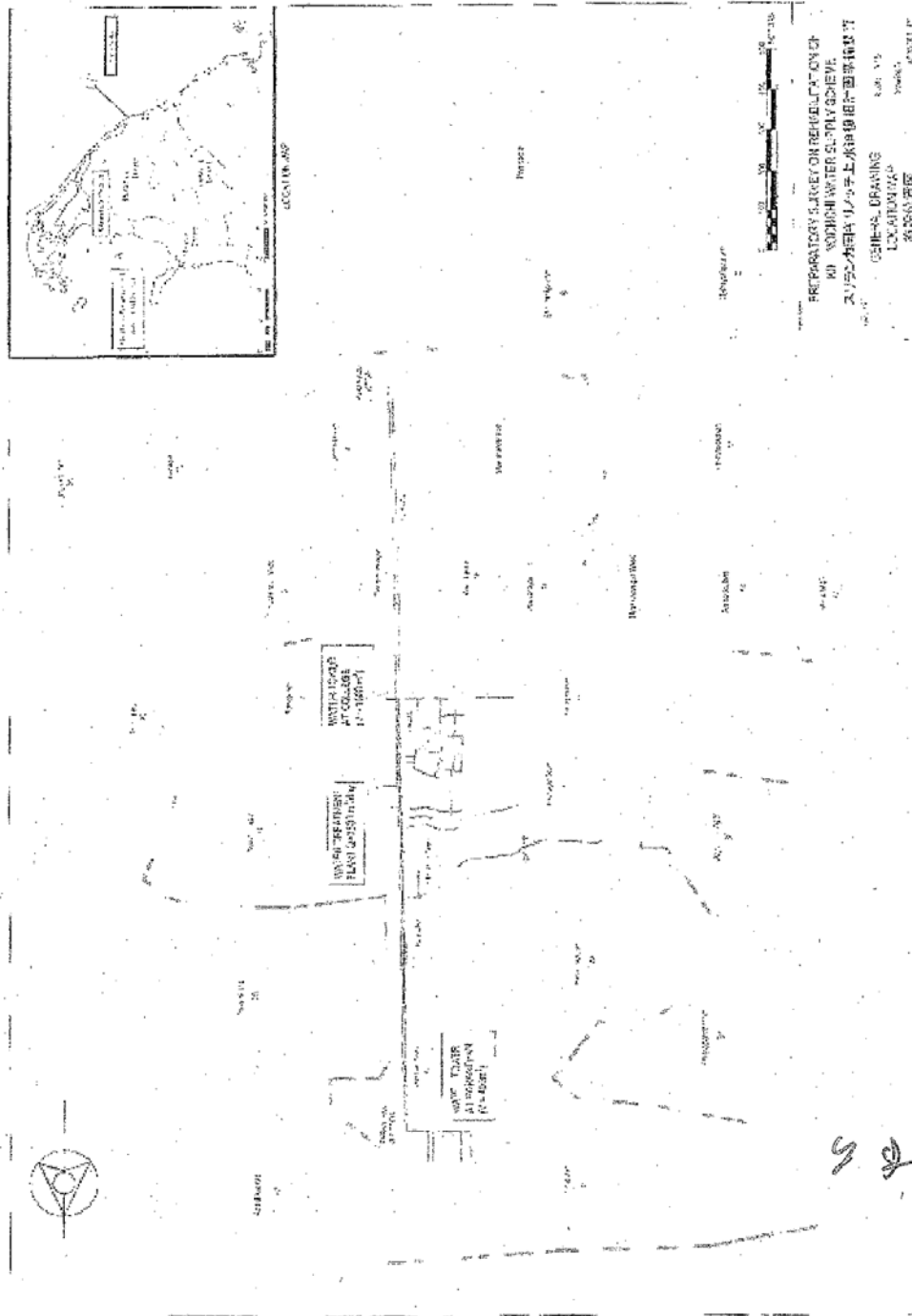
(Note) The expenditure for the 1,500 house connection works (5 million Rs) will be borne by NWSDB. The 1,500 customers will be charged at a subsidized connection fee in consideration of social welfare aspect of the settlers. The selection of subsidized customers is subject to the criteria to be decided by the Regional Support Center (North).

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Annex-3: Service Area of the Project



**Annex-4: Major Undertakings to be taken by Both Sides**

No	Items	Japan	Sri Lanka
1	To acquire lands at the sites for the water treatment plant and water towers		●
2	To clear, level and reclaim the site when needed		●
3	To construct gates and perimeter fences around the water treatment plant and water towers		●
4	To construct the parking lot	●	
5	To construct roads		
	1) Within the site	●	
	2) Outside the site		●
6	To construct and rehabilitate the water supply facilities	●	
7	To provide a stock yard of the construction materials and equipment		●
8	To carry out Technical Survey on UXO (including landmines) and UXO disposal if found		●
9	To provide facilities for the distribution of electricity, water supply, drainage and other incidental facilities		
	1) Electricity		
	a. To construct permanent electric power receiving facilities for the water treatment plant		●
	b. The drop wiring and internal wiring within the site	●	
	c. The main circuit breaker and transformer	●	
	2) Water Supply		
	a. The city water distribution main to the site		●
	b. The supply system within the site (receiving and/or elevated tanks)	●	
	c. The clean water for pressure test and flushing		●
	3) Drainage		
	a. The city drainage main (for storm, sewer and others) to the site		●
	b. The drainage system (for toilet sewer, ordinary waste, storm drainage, etc.) within the site	●	
	4) Telephone System		
	a. The telephone trunk line to the main distribution frame/panel (MDF) of the building		●
	b. The MDF and the extension after the frame/panel	●	
	5) Furniture and Equipment		
	a. General furniture		●
	b. Project equipment	●	
10	To organize the Project Implementation Unit (PIU) and to allocate the staff to operation and maintenance of the Killinochchi water supply system before the comment of the soft component programs		●
11	To install approximately 40 km distribution pipes which will be procured by the Sri Lankan side		●
12	To install 1,500 house connections including water meters which will be provided under the grant aid		●
13	To construct a treatment plant of wastewater from the Killinochchi General Hospital and an army camp		●
14	To bear the following commissions to a bank of Japan for the banking services based upon the B/A		
	1) Advising commission of A/P		●
	2) Payment of banking commission for the Authorization to Pay (A/P) and payment to a Japanese bank based upon the Banking Arrangement (B/A)		●
15	To ensure prompt unloading and customs clearance at the port of disembarkation in recipient country		
	1) Marine (Air) transportation of the products from Japan to the recipient country	●	
	2) To facilitate prompt customs clearance and to pay the custom duties on the equipment and materials required in the implementation of the Project at the port of offloading, and support for smooth delivery of the equipment and materials		●
	3) Internal transportation from the port of disembarkation to the project site	●	
16	To facilitate the Japanese nationals involved in the Project in accordance with the verified contracts to obtain relevant visas and stay permits in Sri Lanka		●
17	To pay internal taxes and other levies on the equipment and materials brought into the Sri Lanka and services provided by the Japanese nationals in accordance with the verified contracts		●
18	To maintain and use properly and effectively the facilities constructed and equipment provided under the Grant Aid		●
19	To bear all the expenses, other than those to be borne by the Grant Aid, necessary for construction of the facilities as well as for the transportation and installation of the equipment		●

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Annex -5.1 Installation Schedule of Distribution Pipelines and House Connections

**Implementation Programme for Laying of Distribution Pipe Lines (45 km)**  
**Rehabilitation of Killinochchi Water Supply Project**

Description	2012								2013								
	Aug	Spet.	Oct.	Nov.	Dec.	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Spet.	Oct.	Nov.	Dec.
Design																	
Procurement																	
Construction																	

Handwritten notes: "2012" and "A"

Annex -5.2 Installation Schedule of Distribution Pipelines and House Connections

**Implementation Programme for Service Connections (1500 Nos)**  
**Rehabilitation of Killinochchi Water Supply Project**

Description	2013							2014											
	Jul	Aug	Spet.	Oct.	Nov.	Dec.	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Spet.	Oct.	Nov.	Dec.	
Procurement																			
Construction																			

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