

**THE STUDY ON WATER SUPPLY AND
SEWERAGE SYSTEM IN KARACHI
IN THE ISLAMIC REPUBLIC OF PAKISTAN**

FINAL REPORT

**Volume 3:
Appendixes**

July 2008

JAPAN INTERNATIONAL COOPERATION AGENCY

**NIHON SUIDO CONSULTANTS CO., LTD.
and
TOKYO ENGINEERING CONSULTANTS CO., LTD.**



**KARACHI WATER & SEWERAGE BOARD (KW&SB)
THE ISLAMIC REPUBLIC OF PAKISTAN**

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JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

KARACHI WATER & SEWERAGE BOARD (KW&SB)

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ON
WATER SUPPLY AND SEWERAGE SYSTEM IN KARACHI
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CHAPTER 1

APPENDIX - A11.1

**Scope of Work for the Study
on Water Supply and Sewerage System
in Karachi in the Islamic Republic of Pakistan
Agreed Upon Between CDGK / KW&SB
and Japan International Cooperation Agency,
Karachi 13 July, 2005**

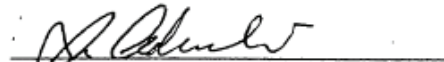
A11.1 Scope of Work for the Study on Water Supply and Sewerage System in Karachi in the Islamic Republic of Pakistan Agreed Upon Between CDGK / KW&SB and Japan International Cooperation Agency, Karachi 13 July, 2005

**SCOPE OF WORK
FOR
THE STUDY
ON
WATER SUPPLY AND SEWERAGE SYSTEM IN KARACHI
IN
THE ISLAMIC REPUBLIC OF PAKISTAN
AGREED UPON BETWEEN
CDGK/KW&SB
AND
JAPAN INTERNATIONAL COOPERATION AGENCY**

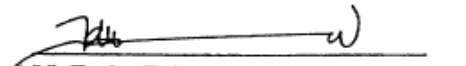
Karachi, 13 July, 2005



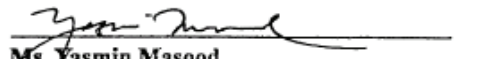
Brigadier Iftikhar Haider
Managing Director
Karachi Water and Sewerage Board



Mr. Adachi Itsu
Leader of the Preparatory Study Team
Japan International Cooperation Agency



Mr. Fazlur Rehman
Care Taker/District Coordination Officer
City District Government Karachi



Ms. Yasmin Masood
Deputy Secretary
Economic Affairs Division
Ministry of Finance, Economic Affairs &
Statistics
Government of Pakistan

CDGK: City District Government Karachi
KW&SB: Karachi Water & Sewerage Board

I. INTRODUCTION

In response to the official request of the Government of Islamic Republic of Pakistan (herein after referred to as "the Government of Pakistan"), the Government of Japan decided to conduct the Study on Water Supply and Sewerage System in Karachi (hereinafter referred to as "the Study") in accordance with the relevant laws and regulations enforced in Japan.

Accordingly, the Japan International Cooperation Agency (hereinafter referred to as "JICA"), the official agency responsible for the implementation of the technical cooperation programs of the Government of Japan, will undertake the Study in close cooperation with the authorities concerned of the Government of Pakistan.

The present document sets forth the Scope of Work with regard to the Study and will be valid after notification of approval by JICA Headquarters through JICA Pakistan office to the Pakistani side.

II. OBJECTIVES OF THE STUDY

The objectives of the Study are as follows:

- (1) to formulate a master plan for improving water supply and sewerage system for the Karachi City to the target year of 2025,
- (2) to conduct a feasibility study for the priority project(s) selected in the master plan, and
- (3) to pursue technology transfer to the Pakistani counterpart personnel in the course of the Study.

III. STUDY AREA

The Study Area shall be limited to the Karachi City District comprising 18 Towns as shown in the Location Map plus areas for raw water sources and their conveyance routes to the Karachi City (see Appendix 1).

IV. STUDY ORGANIZATION

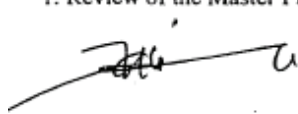
Karachi Water and Sewerage Board (hereinafter referred to as "KW&SB") shall act as a counterpart agency to the Japanese Study Team (hereinafter referred to as "the Study Team") and also as a coordinating body in relation with other governmental and non-governmental organizations concerned for the smooth implementation of the Study.

V. SCOPE OF THE STUDY

In order to achieve the objectives mentioned above, the Scope of Work for the Study shall cover the following items:

Phase 1: Basic Study

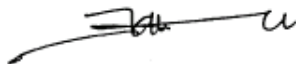
1. Review of the Master Plan formulated in 1985 and 1988



2. Collection and analysis of the existing data and information related to the Study
3. Field reconnaissance and survey on existing water supply facilities and water sources
4. Field reconnaissance and survey on existing sewerage and drainage facilities
5. Water quality analysis
6. Survey on area development plan, land utilization and socio-economic conditions
7. Survey on natural and environmental conditions
8. Survey on public perception
9. Survey on laws, policies and administration system related to water supply, sewerage and drainage
10. Institutional and management capacity assessment of the study organization
11. Review and analysis of the plans and projects related to the Study
12. Evaluation of present water supply, sewerage and drainage conditions and identification of problems
13. Identification of quick impact programme(s)

Phase 2: Master Plan

1. Pre-feasibility study of quick impact programme, if necessary
2. Water demand forecast
3. Forecast of the quality and quantity of wastewater
4. Formulation of comprehensive planning framework and establishment of basic development policies, goals and strategies
5. Plan for optimization and up-gradation of the existing networks of both water supply and sewerage system
6. Plan for equitable water distribution including the valve operation for water supply based on zoning, water carrying ability of the system and water availability
7. Plan of the bulk water source and conveyance system for the Karachi City in line to city's Development Plan.
8. Plan of energy saving to reduce the operational cost
9. Plan of water quality improvement
10. Schematic lay-out plan of the facilities
11. Support for Initial Environmental Examination (IEE)
12. Plan for improvement of management system
 - a. Reorganization of KW&SB
 - b. Improvement of financial management of the KW&SB
 - c. Reduction of the non revenue water
 - d. Improvement of tariff collection system
 - e. Establishment of data management system and GIS with the feature of continuous updating
 - f. Establishment of consumer services center and the system to improve and speed up the effective response to the public complaints





- g. Revision of laws and regulations
- h. Human resources development
- 13. Plan for strengthening institutional capacity
- 14. Preliminary cost estimation
- 15. Phasing implementation plan
- 16. Evaluation of the revised master plan
- 17. Selection of priority projects

Phase 3: Feasibility Study

- 1. Supplemental data collection and analysis
- 2. Preliminary design of the facilities
- 3. Operation, maintenance, management and human resources development plan in the priority projects
- 4. Construction and procurement plan
- 5. Cost estimation and financial analysis
- 6. Formulation of financial plan
- 7. Support for Environmental Impact Assessment (EIA), if necessary
- 8. Project evaluation
- 9. Formulation of implementation schedule

VI. SCHEDULE OF THE STUDY

The Study will be carried out in accordance with the tentative schedule shown in the attached sheet of Appendix 2. The schedule is tentative and subject to modification if such necessity should arise during the course of the Study and is mutually agreed by both parties.

VII. REPORTS

JICA shall prepare and submit the following reports in English to Pakistani side.

- 1. Inception Report
Thirty (30) copies at the commencement of the Study
- 2. Progress Report
Thirty (30) copies at the end of Phase 1
- 3. Interim Report
Thirty (30) copies at the end of Phase 2
- 4. Draft Final Report
Forty (40) copies at the end of the Study
Pakistani side shall submit their comments within one (1) month after the receipt of the Draft Final Report.



5. Final Report

Fifty (50) copies within one (1) month after the receipt of the comments on the Draft Final Report

VIII. UNDERTAKINGS OF THE GOVERNMENT OF PAKISTAN

1. The Government of Pakistan shall accord privileges, exemptions and other benefits to the Study Team in accordance with the Agreement on technical cooperation between the Government of Japan and the Government of Pakistan signed on April 30, 2005.

2. The Government of Pakistan shall bear claims, if any arises, against the members of the Team resulting from, occurring in the course of, or otherwise connected with, the discharge of their duties in the implementation of the Study, except when such claims arise from gross negligence or willful misconduct on the part of the Team.

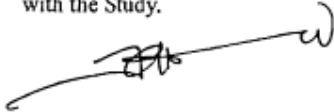
3. KW&SB shall be the executing agency and coordinating body in relations with other governmental and non-governmental organizations for smooth implementation of the Study.

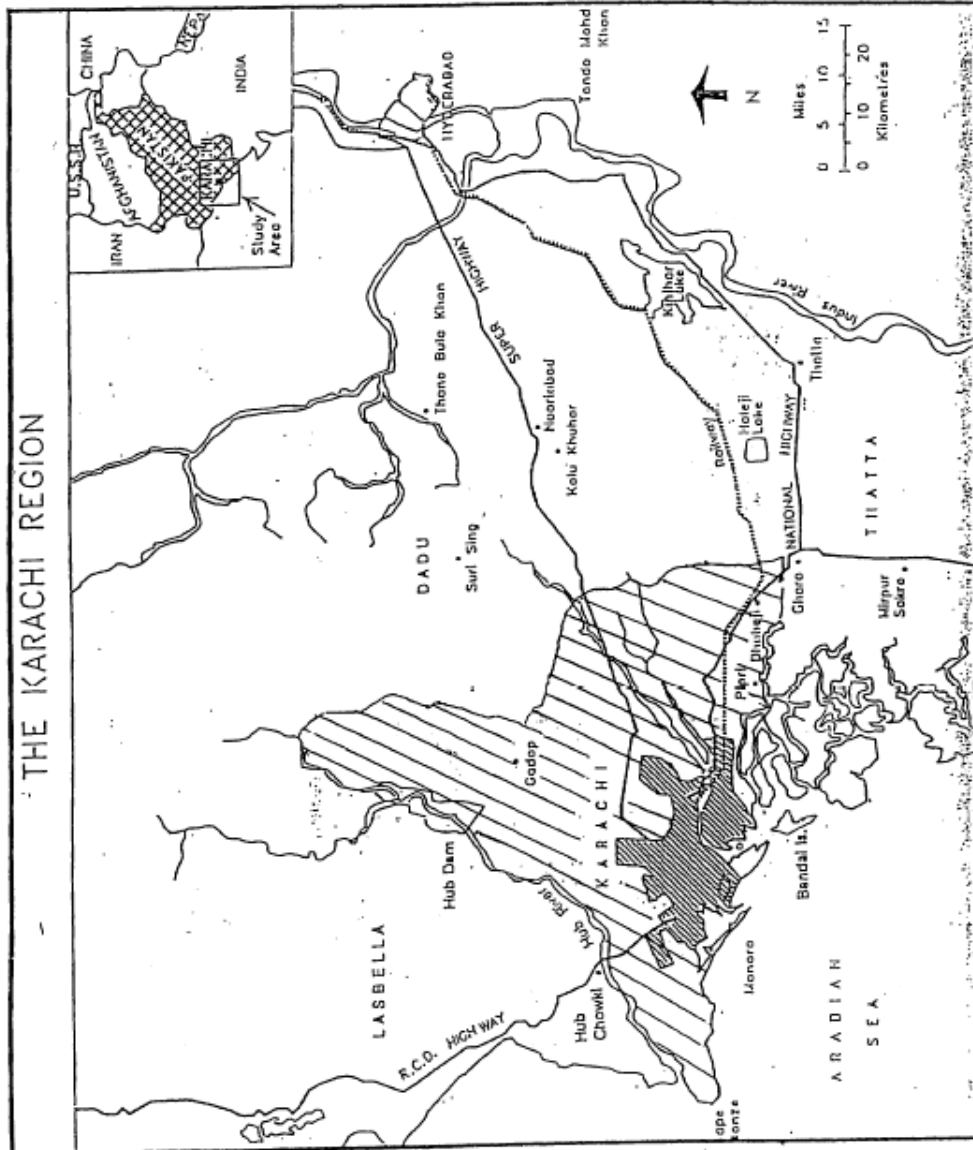
4. KW&SB shall at its own expense, provide the Study Team with the following, in cooperation with other organizations concerned;

- (1) Security-related information on as well as measures to ensure the safety of the Team;
- (2) Information on as well as support in obtaining medical service;
- (3) Available data (including maps and photographs) and information related to the Study;
- (4) Counterpart personnel;
- (5) Suitable office space with necessary equipment; and
- (6) Credentials or identification cards.

IX . CONSULTATION

JICA and KW&SB shall consult with each other in respect of any matter that may arise from or in connection with the Study.





Appendix 2

Tentative Study Schedule

	2005												2006												2007																																																																							
	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12																																																										
Schedule	Phase 1												Phase 2												Phase 3																																																																							
Report													PR																								IT																								PR												DF												FR											

IC: Inception Report
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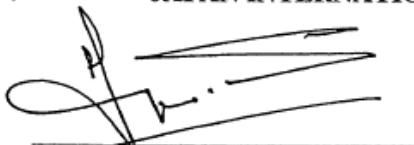
APPENDIX - A11.2

**Minutes of Meeting
on Scope of Work for the Study
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in Karachi in the Islamic Republic of Pakistan
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and Japan International Cooperation Agency,
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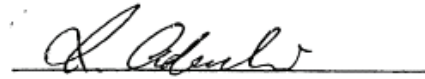
A11.2 Minutes of Meeting on Scope of Work for the Study on Water Supply and Sewerage System in Karachi in the Islamic Republic of Pakistan Agreed Upon Between GOS / CDGK / KW&SB and Japan International Cooperation Agency, Karachi 13 July, 2005

**MINUTES OF MEETING
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AND
JAPAN INTERNATIONAL COOPERATION AGENCY**


Karachi, 13 July, 2005



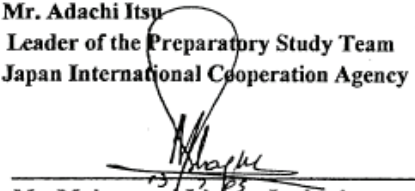
Brigadier Iftikhar Haider
Managing Director
Karachi Water and Sewerage Board



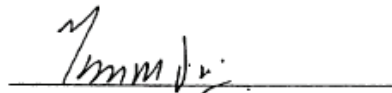
Mr. Adachi Itsu
Leader of the Preparatory Study Team
Japan International Cooperation Agency



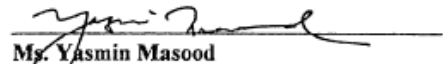
Mr. Fazlur Rehman
Care Taker/District Coordination Officer
City District Government Karachi



Mr. Muhammad Ishaque Lashari
Special Secretary (Local Government)
Local Government, Katchi Abadis and
Rural Development Department
Government of Sindh



Mr. Muhammad Ali Khaskhely
Chief Economist
Planning & Development Department
Government of Sindh



Ms. Yasmin Masood
Deputy Secretary
Economic Affairs Division
Ministry of Finance, Economic Affairs &
Statistics
Government of Pakistan

GOS: Government of Sindh
CDGK: City District Government Karachi
KW&SB: Karachi Water & Sewerage Board

In response to the official request of the Government of Islamic Republic of Pakistan (hereinafter referred to as "the Government of Pakistan"), the Japan International Cooperation Agency (hereinafter referred to as "JICA") dispatched the Preparatory Study Team, headed by Mr. Itsu Adachi (hereinafter referred to as "the Team"), to Pakistan from July 4 to July 28, 2005 to discuss and determine the Scope of Work (hereinafter referred to as "S/W") for the Study on the Water Supply and Sewerage System in Karachi (hereinafter referred to as "the Study").

During its stay in Pakistan, the Team carried out field surveys in the study area, and held a series of discussion with the officials of Economic Affairs Division, Ministry of Finance (EAD), Planning Commission, Government of Sindh, City District Government Karachi, Karachi Water and Sewerage Board (KW&SB) and other authorities concerned about the Study.

As a result of the discussion, both sides came to an agreement on the S/W, which was signed on July 13, 2005 (the list of officials attending the discussion is attached as Appendix).

In the course of finalizing the S/W, both sides agreed and confirmed the following points for the smooth implementation and part of the study.

1. TITLE OF THE STUDY

Both Pakistani side and the Team agreed that the title of the study would be "the Study on the Water Supply and Sewerage System in Karachi" as described in the S/W.

2. TARGET YEAR

Both sides agreed that the target year of the Master Plan is designed to be 2025.

3. STUDY AREAS

Both sides agreed that the Study area is shown in the S/W.

4. STUDY PERIOD

The Study period is approximately 24 months.

5. POSSIBILITY OF ALTERNATIVE OF WATER RESOURCES

Both sides agreed that the possibility of alternative water resources including storage, desalination, reuse of wastewater and other options will be examined using the existing relevant data and reports.

6. LINKAGE WITH MASTER PLAN OF KARACHI CITY

Both sides agreed that the linkage between the Study and the overall Master Plan of Karachi City which has been initiated by CDGK should be assured, incorporating new areas of development into water supply and sewerage system.



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7. LESSONS FROM THE FORMER MASTER PLANS IMPLEMENTATION

Both sides agreed that the reasons for partial implementation of the former Master Plans (Karachi Development Plan 2000, Water Supply M/P in 1985 and Sewerage M/P in 1988) will be identified in Phase 1 of the Study.

8. PUBLIC PRIVATE PARTNERSHIP (PPP)

Both sides agreed that the PPP should also be considered in institutional and management capacity assessment of KW&SB.

9. AREA BASED MANAGEMENT

Both sides agreed that area based management system should be considered as one of the management tools in both water supply and sewerage system.

10. INTEGRATION OF WATER SUPPLY AND SEWERAGE SYSTEM AMONG STAKEHOLDERS

Both sides recognized that the necessity of integration of water supply demands and sewage treatment plans of other autonomous, semi-autonomous, Federal & Provincial Government bodies and institutions with the overall forecast of water & sewerage services of KW&SB.

11. CORPORATIZATION OF THE KW&SB

Both sides agreed to consider the possibility of corporatization of the KW&SB within the existing higher management framework to improve its economic viability.

12. ON-GOING AND PIPE LINE PROJECTS

Both sides agreed to integrate the on-going and pipe line projects in the field of water supply and sewerage system into the Master Plan.

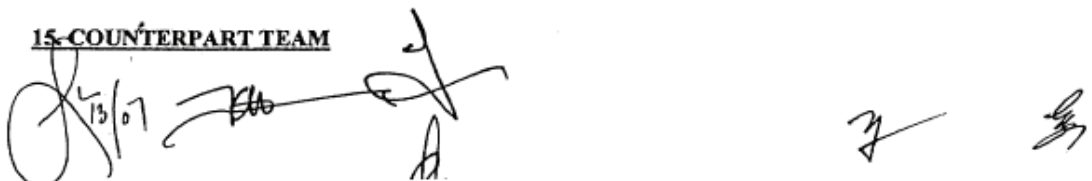
13. SEWAGE TREATMENT

Both sides agreed to consider a sewage treatment plan to save the coast line from becoming a sewage pool, and to assess the possibility of segregation of the domestic and industrial waste, its treatment, usage and disposal.

14. INTEGRATED PLAN OF DRAINAGE AND SEWERAGE SYSTEM

Pakistani side requested Japanese side to consider the integrated plan of drainage and sewerage system.

15. COUNTERPART TEAM

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Counterpart team headed by MD of KW&SB will jointly work at all times with the Study team as core facilitators and focal points. Members of the team are required to be assigned from senior members of KW&SB, in advance of the commencement of the Study.

16. COORDINATION MECHANISM OF THE STUDY

Both sides agreed that Pakistani side will set up a Steering Committee before the commencement of the Study. The committee will be called by the Chairman periodically.

Also, both sides agreed that the Chairman of the Steering Committee would report the progress and result of the Study to the Coordinating Committee on Development and Management of Large Cities for the smooth implementation of the Study.

17. ENVIRONMENTAL AND SOCIAL CONSIDERATIONS

The Team explained JICA's Guidelines for Environmental and Social Considerations, and that it will be applied to the Study. KW&SB understood the policy of JICA guidelines, and agreed in principle to the following responsibilities and requirements.

- (1) Based on the guidelines, KW&SB shall be responsible for conducting Initial Environmental Examination (IEE) in collaboration with the Study Team. The Study Team shall provide KW&SB with technical support in order to conduct IEE.
- (2) The information disclosure such as study reports shall be made in order to ensure the participation and dialogues with various stakeholders, and achieve appropriate environmental and social considerations.
- (3) The above-mentioned responsibilities and requirements will also be applied when Environmental Impact Assessment (EIA) is necessary.
- (4) In the course of implementation of the Study, public consultation with communities and stakeholders shall be included if necessary.
- (5) In case resettlement is inevitable from the result of the Study, KW&SB shall be responsible for making resettlement action plan in collaboration with CDGK.

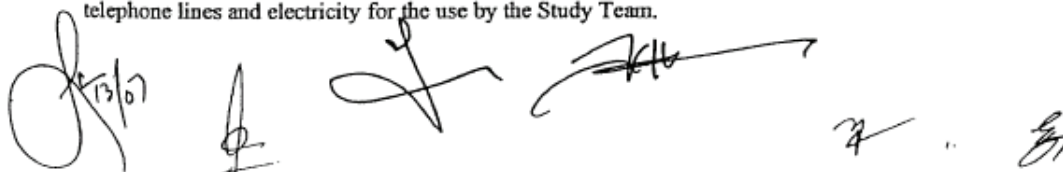
18. SEMINARS AND/OR WORKSHOPS

Seminars and/or workshops will be jointly held by KW&SB and the Japanese Study Team to provide opportunities of dialogue with stakeholders and transfer the technology to the Pakistani counterparts.

Both sides agreed that the subjects would be discussed and settled during the Study period.

19. UNDERTAKING OF THE GOVERNMENT OF PAKISTAN

1. Pakistani agreed to provide the Study Team with all available data (including geographical maps and photographs) and information related to the Study.
2. Pakistani side agreed to provide office space in KW&SB with office furniture, air-conditioning, telephone lines and electricity for the use by the Study Team.



20. APPROVAL OF PCII

The Team promised to inform the estimation of inputs from Japanese side necessary for PCII by September, 2005 and Pakistani side promised to get approval of PCII and inform JICA Pakistan Office of the progress before the commencement of the Study.

21. REPORTS

Both sides agreed that the result of the Study would be open to the public in order to achieve maximum use of the Study results.

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APPENDIX

List of Attendants

(A. Pakistani Side)

Federal Government

Dr. Akram Sheikh Deputy Chairman, Planning Commission
Mr. Malik Muhammed Saeed Khan
Additional Secretary, P&D Division
Mr. Shahid Iqbal Rana Chief, PP&H, P&D Division
Mr. Mazhar Iqbal Section Officer, EAD

Government of Sindh, GOS

< Planning & Development Department >

Mr. Anzar Hussain Zaidi Acting Additional Chief Secretary,
Ms. Rehana G. Ali Memon Special Secretary,
Mr. Hassan Ali Din Muhammad Chief, Foreign Aid
Mr. Abbas Ali Planning Officer, Foreign Aid Section

< Local Government, Katchi Abadis and Rural Development Department >

Mr. Muhammad Saleem Khan Additional Chief Secretary
Mr. Muhammad Ali Khaskheli Chief Economist
Mr. Muhammad Ishaque Lashari Special Secretary
Mr. G. Arif Khan Additional Secretary
Mr. Riaz Ahmad Junejo Director, Monitoring and Evaluation Cell

< Finance Department >

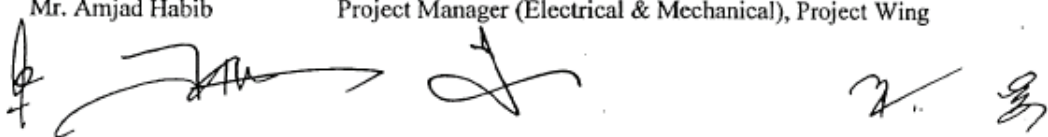
Dr. Zulfiqar Ali Shallwani Deputy Secretary, Finance Department

City District Government Karachi, CDGK

Mr. Fazlur Rehman District Coordination Officer (DCO)
Mr. Raeesuddin Paracha Executive District Officer (EDO),
Enterprises & Investment Promotion
Mr. Nisar Ahmad Sario District Officer (PA&E) & Project Manager,
Tameer-e-Karachi Programme
Mr. Bilal Ahmed Memon Deputy District Officer, DCO Secretariat

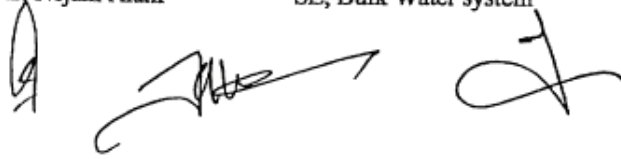
Karachi Water and Sewerage Board, KW&SB

Brigadier Iftikhar Haider Managing Director & EDO(W&S) CDGK
Mr. Shahid Saleem Deputy Managing Director (DMD), Planning
Mr. Asrar Zaidi DMD, Services
Mr. Amjad Habib Project Manager (Electrical & Mechanical), Project Wing



APPENDIX

Mr. Ali Mohammed Palijo	Chief Engineer (CE), Bulk Water Transmission
Mr. Mashkoorul Hasnain	CE, Project
Mr. Asad Omar	CE, Water Distribution
Mr. Farid Ahmed Soomro	CE, Sewerage
Mr. Nejam Alam	SE, Bulk Water system



APPENDIX - A12.1

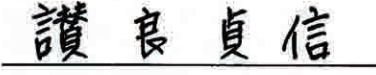
**Minutes of Meeting
on Inception Report for the Study
on Water Supply and Sewerage System
in Karachi held on March 17, 2006**

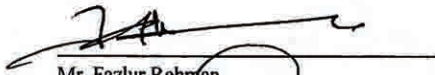
A12.1 Minutes of Meeting on Inception Report for the Study on Water Supply and Sewerage System in Karachi held on March 17, 2006

**MINUTES OF MEETING
ON
INCEPTION REPORT
FOR
THE STUDY ON WATER SUPPLY AND SEWERAGE SYSTEM
IN
KARACHI
IN
THE ISLAMIC REPUBLIC OF PAKISTAN
AGREED UPON BETWEEN
GOS/CDGK/KW&SB
AND
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)**

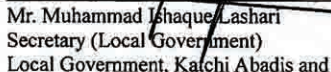
Karachi, March 17, 2006

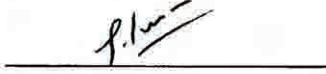

Brigadier Iftikhar Haider
Managing Director & EDO (Water & Sanitation)
CDGK, Karachi Water & Sewerage Board

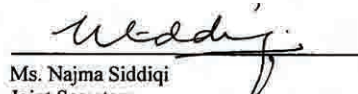

Mr. Sadanobu Sawara
Team Leader
JICA Study Team


Mr. Fazlur Rehman
District Coordination Officer
City District Government Karachi


Mr. Yoshiki Omura
JICA Advisory Committee for the Study


Mr. Muhammad Ishaque Lashari
Secretary (Local Government)
Local Government, Karachi Abadis and
Rural Development Department
Government of Sindh


Mr. Ghulam Sarwar Khro
Additional Chief Secretary (Dev.)
Planning & Development Department
Government of Sindh


Ms. Najma Siddiqi
Joint Secretary
Economic Affairs Division
Ministry of Finance, Economic Affairs &
Statistics
Government of Pakistan

With respect to the Study on Water Supply and Sewerage System in Karachi in the Islamic Republic of Pakistan (hereinafter referred to as "the Study"), the JICA Study Team submitted thirty (30) copies of Inception Report to the Pakistani side, and presented the report in the meeting in Karachi on March 14, 2006 at the committee room of the P&D Department of the Government of Sindh to the Pakistani side chaired by Mr. Ghulam Sarwar Khoro, Additional Chief Secretary (ACS), Planning & Development Department of the Government of Sindh (The list of attendants is attached as Appendix A).

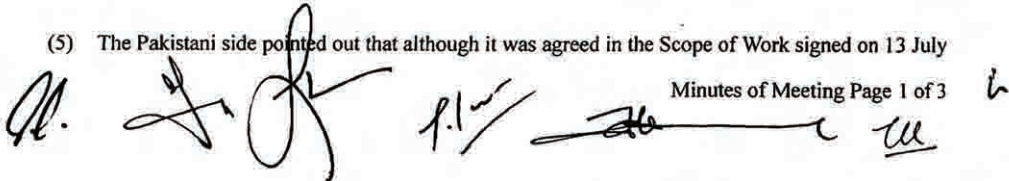
The following are the subjects discussed and agreed upon between Pakistani and Japanese sides in the meeting.

1. Acceptance of the Inception Report

The Pakistani side accepted the Inception Report prepared and submitted by the JICA Study Team. In so doing, the Pakistani side provided the following comments and suggestions.

- (1) The Pakistani side emphasized and Japanese side took note that:
 - JICA Study should synchronize with the holistic Karachi Master Plan 2020 currently being prepared by the Engineering Consultants International (PVT) LTD.
 - JICA Study should be implemented in close coordination with the ADB's technical assistance for 'Institutional Enhancement and Project Preparation for Implementation of Karachi Mega City Development Project' and the World Bank's technical assistance (WSP-SA) for 'Institutional Reform and Strengthening of KW&SB'.
- (2) The Pakistani side informed that several federal government agencies, such as Defense Housing Authority (DHA), Karachi Port Trust (KPT), Port Qasim Authority (PQA) and Cantonments would be included in the JICA Study.
- (3) The Pakistani side expressed concern that the entire existing bulk water supply system from the Indus River depends on the raw water conveyance facilities which connect the Kinjhar Lake to the Dhabeji pumping station, and that it is not preferable from the risk management point of view. Pakistani side suggested that in planning the future augmentation of the bulk water supply system JICA Study should consider selecting alternative conveyance routes to Karachi to reduce the risk, including the review of the on-going alternative route study for K-IV Project.
- (4) The Pakistani side asked whether the scope of the JICA Study includes the improvement of water services and cost recovery in Katchi Abadis areas. The Japanese side replied that the JICA Study includes the improvement of water services and cost recovery in Katchi Abadis areas.
- (5) The Pakistani side pointed out that although it was agreed in the Scope of Work signed on 13 July

Minutes of Meeting Page 1 of 3



2005 that the Inception Report should be submitted in November 2005, it was actually submitted in March 2006. The Pakistani side asked whether the delay in the commencement of the Study can be recovered by shortening the Study period.

The Japanese side replied that although the Study period of 2 years will remain the same, the Progress Report compiling the outcome of the Phase 1 Study will be submitted in late September 2006 as has been scheduled in the Scope of Work signed on 13 July 2005.

- (6) The Pakistani side requested and the Japanese side agreed that "(19) Identification of Quick Impact Activities, Section 5.2.1 Phase 1: Basic Study, 5.2 Scope of Work" of the Inception Report should be replaced in its entirety with the following.

"(19) Identification of Quick Impact Activities/Projects/Programmes
Based on the outcome of the foregoing studies and through discussions with KW&SB and other government agencies in Pakistan, the Study team will evaluate if there are any activities/projects/programmes which need to be urgently implemented or materialized in the near future."

2. Establishment of Steering Committee

JICA requested the Pakistani side to set up a Steering Committee as has been agreed upon in the Minutes of Meeting on Scope of Work signed on July 13, 2005.

The Pakistani side informed that:

- KW&SB has already submitted a request for establishing a Steering Committee to the Government of Sindh through the Local Government, Katchi Abadis & Rural Development Department;
- The ACS (Dev.), P&D Department agreed to include and co-opt the representatives of several federal/government agencies in the Steering Committee on a required basis; *concerned*
- The Local Government, Katchi Abadis & Rural Development Department would forward the request with a revised member list to the Government of Sindh; and
- The Government of Sindh is expected to officially notify the establishment of the Steering Committee upon receipt of the request.

3. Implementation of the Study

JICA requested KW&SB to provide sufficient number of counterpart personnel as required by the Study Team for the smooth and successful implementation of the Study.

KW&SB replied that it would soon nominate counterpart staffs so that they would be ready to work

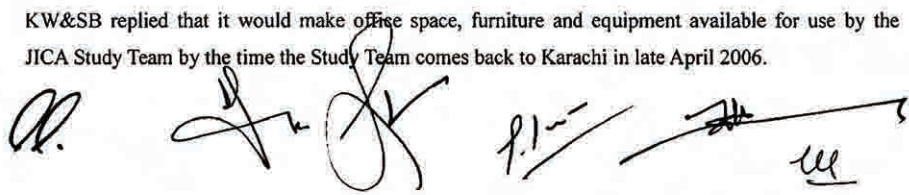
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Minutes of Meeting Page 2 of 3
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in

with the JICA Study Team when it comes back to Karachi in late April 2006.

4. Office Space and Equipment for JICA Study Team

JICA requested that office space, furniture and equipment should be provided according to the undertakings for the Study as set forth in the Scope of Work signed on July 13, 2005.

KW&SB replied that it would make office space, furniture and equipment available for use by the JICA Study Team by the time the Study Team comes back to Karachi in late April 2006.

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List of Attendants**(A. Pakistani Side)****Government of Sindh, GOS****<Planning & Development Department>**

Mr. Ghulam Sarwar Khero	Additional Chief Secretary
Ms. Rehana G. Ali Memon	Special Secretary
Mr. Muhammad Ali Khaskhely	Chief Economist
Mr. Hassan Ali Din Muhammad	Chief, Foreign Aid
Mr. Abbas Ali	Planning Officer, Foreign Aid Section
Mr. Khalid M. Siddiqui	Chief, PP&H

<Local Government, Katchi Abadis and Rural Development Department>

Mr. Muhammad Ishaque Lashari	Secretary
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City District Government Karachi, CDGK

Mr. Iftikhar Ali Kaimkhani	Executive District Officer (EDO), MPGO
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Karachi Water and Sewerage Board, KW&SB

Brigadier Iftikhar Haider	Managing Director
Mr. Shahid Saleem	Deputy Managing Director, Planning
Mr. Muhammad Jawaid Khan	Consultant
Mr. Mashkoorul Hasnain	Chief Engineer, Project
Mr. Syed Hasan Kazmi	Deputy Project Manager, E/M

(B. Japanese Side)**Inception Report Explanation Team****<Official Members from JICA Headquarter>**

Mr. Yoshiki Omura	Chair Advisory Committee
Mr. Tadashi Kageyama	Study Planning

<Study Team>

Mr. Sadanobu Sawara	Team Leader/Water Supply Planning
Mr. Takehiko Oga	Deputy Team Leader/Water Supply Facility Planning
Mr. Masakazu Nakao	Sewerage Planning/Facility Planning

JICA Pakistan Office

Mr. Makoto Takahashi	Deputy Resident Representative
Mr. Mahmood A. Jilani	Deputy Resident Representative/Chief Programme Officer

JICA Karachi Project Office

Mr. Kokyo Tamaki	Project Formulation Advisor
Mr. Shaikh Talib Fatah	Project Coordinator




APPENDIX - A12.2

**Minutes of Meeting of the Steering
Committee held on October 2, 2006
in P & D Deptt., Govt. of Sindh,
to Review Progress Report No.1 on Master Plan
for Water Supply and Sewerage System
in Karachi under JICA Assistance**

A12.2 Minutes of Meeting of the Steering Committee Held on October 2, 2006 in P & D Deptt., Govt. of Sindh, to Review Progress Report No.1 on Master Plan for Water Supply and Sewerage System in Karachi under JICA Assistance

**OFFICE OF THE SUPERINTENDING ENGINEER (BWSC)
KARACHI WATER AND SEWERAGE BOARD
Block-B, 9th Mile, Karsaz, Sharae Faisal, Karachi.**

Ref: No.: *SL-716T) KWSB/2006/153* Dated: 13th November 2006

The City Nazim
City District Government,
Karachi.

The District Coordination Officer
City District Government,
Karachi.

The Chief (Foreign Aid)
P&D Department, GoS,
Karachi.

The Special Secretary
P&D Department, GoS,
Karachi.

The Managing Director
Karachi Water & Sewerage Board
Karachi.

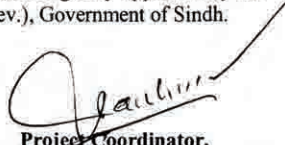
The EDO (Master Plan)
City District Government,
Karachi.

The Chief (PP&H)
P&D Department, GoS,
Karachi.

SUB: MINUTES OF THE MEETING OF THE STEERING COMMITTEE HELD ON OCT 2, 2006, IN P & D DEPTT., GOVT. OF SINDH, TO REVIEW PROGRESS REPORT NO.1 ON MASTER PLAN FOR WATER SUPPLY AND SEWERAGE SYTEM IN KARACHI UNDER JICA ASSISTANCE

I am directed to refer to the letter No.: PD/PP&H/ALB-3/134/06 dated: 7-11-2006, regarding above noted subject.

Enclosed, please find herewith, the minutes of the subjected meeting duly approved by the Chairman Steering Committee / Additional Chief Secretary (Dev.), Government of Sindh.


**Project Coordinator,
JICA Study Team /
SE (BWSC), KWSB**

Encl: As above

C.C.:

1. The Chairman, Steering Committee / Addl. Chief Secretary (Dev.), GoS, Karachi.
2. The Dy. Managing Director (Planning), KWSB, Karachi.
3. The Secretary, Steering Committee / CE (Projects), KWSB Karachi
- ✓ 4. The Team Leader, JICA Study Team.

KARACHI WATER & SEWERAGE BOARD

SUB: MINUTES OF THE MEETING OF THE STEERING COMMITTEE HELD ON OCTOBER 2, 2006 IN P&D DEPTT TO REVIEW PROGRESS REPORT NO. 1 ON MASTER PLAN FOR WATER SUPPLY & SEWERAGE SYSTEM IN KARACHI UNDER JICA ASSISTANCE

1- First meeting of the Steering Committee formed by the Government of Sindh for Master Plan of Water Supply & Sewerage System of Karachi under JICA technical assistance Program was held on Oct 2, 2006 in the P&D Deptt., Since the Additional Chief Secretary P&D Department was out of country the meeting was chaired by Ms. Rehana Memon, Special Secretary (P&D) Deptt./ Member of Steering Committee. The list of participants is attached as Annex-1.

2- At the outset the chairperson expressed a note of welcome to the participants and JICA Study Team in particular. She informed that the meeting of the Steering Committee was convened to review the progress on the preparation of Master Plan for water & sewerage. She then invited Mr. Sadanobn Sawara, JICA Study Team leader to brief the forum.

3- Mr. Sawara informed that as per the scope of work the mission was required to produce following work products:-

Inception Report.

Progress report No.1

Progress report No.2

Interim report

Draft final report

Final report

4- The mission had earlier submitted its Inception report. As per schedule after preparation of Progress Report No. 1 it was forwarded to the members of Steering Committee. He explained the salient features of report with the help of slides & charts. A copy of JICA's presentation is attached with the minutes of meeting as Annex-2

5- The Karachi's population figure was incorporated in the study not based on 1998 population census. Dr. Sikander Panhwar, Director Monitoring Cell LG Deptt. contested the population figure. DMD Planning explained that the figure

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given in the Karachi Master Plan has been adopted which was confirmed by EDO, MPGO and justified that the population had been verified through sample surveys done by CDGK in various Union Councils and the same was presented in the meeting of coordination committee on development and management of large cities held on 21-9-06 in the Governor House with Planning Commission and Federal Government agencies After detailed deliberations the JICA Study Team was given consent to use the population data of Karachi as projected in the Karachi Master Plan 2020 for the purpose of uniformity although the Steering Committee felt it was on higher side.

6- It was discussed that for improvement of water supply and sewerage services actual population residing in informal settlements called *Katchi Abadis* be considered in the study because such settlements would eventually have access to drinking water and sanitation facilities, notwithstanding status of an individual settlement. Ms. Rehana Memon was of the opinion that low efficiency at lower functionaries in KW&SB, lack of management and resources coupled with political influences and corruption adversely affected the delivery of services to the people. The EDO MPGO pointed out that while preparing the master plan of water and sewerage the drainage system of Karachi might also be taken into account as substantial quantity of sewage is still carried through nallahs and drains. It was also agreed that Gadap, Keamari, and Bin Qasim Towns had scope for expansion and this aspect should be considered.

7 Team Leader JICA Study Team proposed to implement a pilot project to experience how water distribution, sewerage, billing and collection could be improved as a whole in a small, hydraulically isolated water distribution network for quick impact program. The pilot area was termed as distribution network improvement (DN1). The steering committee was of the opinion that selection of pilot area be undertaken carefully in consultation with KWSB by adopting a rational approach with emphasis on willingness of the community to participate in the process, proximity to source of water, possibility of installing meters at individual household premises. Another important area, which deserved to be considered, was efficient billing & collection so that it served as a viable model for overall citywide master plan for water and sewerage sectors. After detailed discussion and consensus, the JICA study team was given go-ahead for

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proceeding further with the concept of DNI, selection of pilot area and its follow-up activities.

8- It was general consensus that sufficient quantity of bulk water supply was being provided to city, however, water distribution system suffered from numerous problems like leakages, indiscriminate wastage of water, pilferage, absence of dedicated mains to serve tail-end areas, non availability of meters at key points, aging or deteriorated conditions of water main, crude system of valve operation. These real causes of problem led to inadequate and inequitable water supply in the city. The master plan study should endeavour to address these major issues. The study should focus on the improvement of existing water distribution network on prudent hydraulic practices and principles. As for the future water demand for domestic, industrial, commercial uses that would be confronted over the horizon the on going K-IV study should provide the required in put. For this reason close co-ordination between JICA study team and consultant K-IV through KWSB was emphasised upon. It was also discussed that due to limitations on the expansion of bulk water supply system being at a distant source it was decided that parallel efforts should continue in real earnest for exploring alternate sources of water like rain water harvesting, recharging of ground water recycling of wastewater for non-domestic use & seawater desalination. The Chief (PP&H), P&D Deptt, GOS, Mr. Khalid Mahmood Siddiqui clarified that P&D Department, Government of Sindh was not involved in the construction of desalination plants but only facilitating private sector and other organization / agencies on coastal belt to install desalination plants in Karachi in consultation with KW&SB.

9- The Steering Committee observed about lack of co-ordination with the MPGO, CDGK. The MPGO was assigned the task of preparing a holistic master plan of city up to 2020 & it was essential that water & sewerage master plan should be compatible and dovetail with overall plan of Karachi otherwise both these efforts could turnout to be counterproductive. It was decided that for proper co-ordination between JICA Master Plan study and MPGO Karachi master plan study the EDO (MPGO) would be focal person he will ensure there is appropriate

two-way communication between these relevant organizations and its consultants.

10- DMD Planning KWSB commended the effort of JICA Master Plan Study Team in compiling a database on water and sewerage which was supplemented with sample surveys carried out by the team regarding leakage in Landhi Town and Gadap Town similarly sample water quality surveys were also conducted along with sample surveys of community perception about KWSB. These surveys will enable preparation of realistic master plan.

11- While summing up the chairperson appreciated the good effort made by JICA Study Team in preparing Progress Report 1 which can form a basis for the ultimate master plan as well as identification of priority projects which can lead to provision of improved level of water and sewerage services which citizen rightly expect.

12- The CE Projects KW&SB was of the view that JICA Study Team had held a stakeholders conference during August 2006. It was noted that there needed to be more close interaction between JICA Study Team and all other stakeholders like Cantonment Boards, DHA, PQA, KPT, PD LERP, PD Scheme-33, PD Surjani etc. so that the future plans of each of this organization is incorporated and reflected in the water and sewerage master plan study. Such co-ordination could be managed at MD, KW&SB level where each of the organization can be consulted before finalization of plan proposals.

13- It was also agreed to include D.G, Sindh Katchi Abadis Authority and rep: of Finance Department in Steering Committee meeting and co-opt other stakeholders on need basis. A draft modified notification would be submitted by KW&SB to Local Government Department for issuance by SGA&CD. The modified notification should also indicate the Chief Engineer Projects, KW&SB as Member / Secretary.

14- The meeting ended with a note of thanks to & from chair.


Chief Engineer Projects KWSB/
Secretary Steering Committee

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Annexure – 1

JICA STUDY ON WATER SUPPLY AND SEWERAGE SYSTEM IN KARACHI

List of Member of the Steering Committee attended the meeting – 2nd Oct, 2006,
Karachi

1. **Planning & Development Deptt., Govt of Sindh**
 - (i) Mr. Hassan Ali Din Muhammad
Chief Foreign Aid / Member
 - (ii) Ms. Rehana G Ali Memon
Special Secretary / Member
 - (iii) Mr. Khalid Muhammad Siddiqui
Chief (PP&H) / Member
 - (iv) Ms. Sarwat Sultana
Planning Officer / Member

2. **Local Government Deptt., Govt of Sindh**
 - (i) Mr. Sikandar Ali Panhwar
Director M&E

3. **City District Government Karachi**
 - (i) Mr. Iftikhar Ali Kaim Khani
EDO-Master Plan Group of Offices / Member

4. **Karachi Water & Sewerage Board**
 - (i) S. Mashkoor-ul-Hassan
Chief Engineer Projects/ Member/ Secretary of the Meeting
 - (ii) Mr. Shahid Salim
DMD (P&D)

5. **Japan International Cooperation Agency (JICA)**
 - (i) Mr. K. Tamaki
JICA Project Formulation Advisor, Karachi
 - (ii) Mr. Sadanobu Sawara
Team Leader, JICA Study Team, Karachi

- (iii) Mr. Mahmood Ali Jilani
Deputy Resident Representative & Chief Program Officer JICA, Islamabad
 - (iv) Mr. Talib Fatah
Project Coordinator, JICA Karachi
 - (v) Iftikhar Ahmed Khan
Project Coordinator, JICA Study Team Karachi
 - (vi) Mr. Shinsaku Fukazawa
JICA Islamabad
 - (vii) Muhammad Salim Amin
Project Administration Manager, JICA Study Team, Karachi
 - (viii) Mr. Shozo Mori
Coordinator, JICA Study Team, Karachi
 - (ix) Ms. Naila Almas
Project Assistant, JBIC
-