

APPENDIX - A13.3

KW&SB's Questionnaires on Progress Report No.2 on Master Plan for Water Supply and Sewerage System in Karachi and JICA Study Team's Replies to the KW&SB's Questionnaires

A13.3 KW&SB's Questionnaires on Progress Report No.2 on Master Plan for Water Supply and Sewerage System in Karachi and JICA Study Team's Replies to the KW&SB's Questionnaires

Sadanobu Sawara

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送信日時: 2007年4月5日 16:12 (05 April 2007)
件名: KWSB questionnaires and answers of JICA Team Leader to be incorporated in Progress Report-2

Dear Mr. Sadanobu SAWARA

Managing Director, KW&SB has seen your answers and he has decided that both of the KW&SBs questionnaires and answers shall be incorporated in the Draft Report No.2 of Master Plan Study and as a part of the record.

Regards.

Muhammad Suleman Chandio
Dy. Managing Director (Planning)
Karachi Water & Sewerage Board
Email : dmdpl_kwsb@yahoo.com

CC:

MD, KW&SB
CE (Projects), KW&SB

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Sadanobu Sawara

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添付: JST Replies to KW&SB Questionnaires-15March2007.xls; Attachment-E.pdf; Attachment-A.pdf;
Attachment-B.pdf; Attachment-C.pdf; Attachment-D.pdf
件名: Our Answers to Your Questionnaires.

Dear Mr. Muhammad Suleman Chandio,

Herewith please receive our answers to your questionnaires regarding our Progress Report No.2, which we received from you on 1st March 2007. In this regard, we would like to inform you that we were unable to grasp the intentions/meanings of some of your questions. Under the circumstances, we would be grateful if you could kindly clarify those questions so that we can make relevant/appropriate answers to them. Further, we will be willing to answer any additional questions you might have come up with lately regarding the contents of our Progress Report No.2.

Regards

Sadanobu SAWARA
Team Leader, JICA Study Team
The Study on Water Supply and
Sewerage System in Karachi
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VOLUME 1: MAIN REPORT

Page No.	Chapter No.	Title	Questions Asked by KW&SB	Answers Provided by JICA Study Team
1/1	1/1	Introducing background	Q1-i. Why the drainage / nalas are not discussed / mentioned?	The Scope of Works for the study was agreed upon between GOS/CDGK/KW&SB and fully authenticated by the signed Minutes of Meeting dated 13 July 2005 (Attachment-A). Please refer to the front page of the minutes for the agreed title of the JICA study and "II. OBJECTIVES OF THE STUDY" of the minutes for agreed objectives of the JICA study.
			Q1-ii. Is it technical manpower transfers or technology transfer which may be described fully. Is KW&SB counter part agency of JICA or coordinating body with Govt. & NGO's? Is JICA working as consultant under monitoring of KW&SB which is a client/master on behalf of GOS/GOS or the JICA is client & monitor upon KW&SB. Described fully for clarify in the role of JICA in the KW&SB and matter be re-written.	The Scope of Works for the study was agreed upon between GOS/CDGK/KW&SB and fully authenticated by the signed Minutes of Meeting dated 13 July 2005 (Attachment-A). Please refer to "IV. STUDY ORGANIZATION" of the minutes, which defines the role of KW&SB as follows: "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 "JICA 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."
			Q2-i. Did you officially invited objections from KW&SB for inception report or any approval sought from KW&SB prior to presentation before Addl. Chief Secretary? Does it hold any official approval for KW&SB regarding inspection report which may be confirmed by written record.	The Inception Report was presented at a meeting held in Karachi on 14 March 2006 and accepted by the Pakistan side with several comments and suggestions. Please refer to the minutes of the meeting dated 17 March 2006 (Attachment-B)
1.2	1.2		Q2-ii. What are the priority projects identified regarding water supply, sewerage & drainage Sector?	We propose that priority should be given to those projects that will directly contribute to the increase in revenue or to the reduction of O&M expenses.
			Q2-iii. Why the drainage chapter are not highlighted / discussed?	Please refer to our answer to your question Q1-i.
			Q2-iv. Where is JICA guideline for environmental and social considerations	Please refer to Attachment-C.
			Q2-v. Does the survey of two locations & consumption of water / perception from 1200 household represent 14 million people of Karachi and why the sewerage system user & drainage were not included in the survey & other subsequent fields of study for given purpose?	Please refer to page 16, item (16) of the Inception Report for the agreed procedure for the survey of two small water distribution blocks. This study was intended to estimate the cost, time and manpower required for the implementation of the non-revenue water reduction plan. Please refer to page 15, item (12) of the Inception Report for the agreed procedure for a Water Consumption and Public Perception Survey of 1,200 households.
			Q3-i. Drainage sector is not including why?	The Scope of Works for the study was agreed upon between GOS/CDGK/KW&SB and fully authenticated by the signed Minutes of Meeting dated 13 July 2005 (Attachment-A). Please refer to the "Phase 2: Master Plan" of item "V. SCOPE OF THE STUDY" of the minutes.
3	1.3	Phase-2 Master Plan	Q3-ii. Instead of seniors, who junior officers 26 against 40 were discussed the administration & managerial issues who are no expertise in this field? Whether, the outcome was approved by KW&SB are reaping the workshop is solution?	JICA Study team discussed with the Managing Director (MD) of KW&SB about the concept paper of and the invitees to the workshop. The final list of invitees was prepared by MD, not JICA Study team. Please refer to the invitation letter issued by KW&SB (Attachment-D).
2/1	2/1	City population	Q4 KW&SB is engineering organization having concern with water supply, sewerage & drainage infrastructures & specific areas of housing/industries. Whether separate population / requirement is to be workout?	We follow the population projections made by KMP-2020, which was approved by the Steering Committee held in Karachi on 2 October 2006. Please refer to the Item No.5 of the minutes of the meeting of the Steering Committee dated 13 November 2006 (Attachment-E).

2/2	Future population	Q5	Is there working of number of plots to be carryout curved in future to assist the number of houses / units which are basic requirement to assess future population separately for different public housing scheme in urban & Katchi Abadis including rural village & to match the CDGK master plan quoted? Is there any formulas given for normally to forecast population growth for 2010, 2015, 2020 as required in the engineering projects?	Please clarify the first part of your question. We follow the population projections made by KMP-2020. KMP-2020 uses "Exponential Model" for population projection.
8	2.2.1	Q6-i.	Where is the source of data for 540 mgd present water supply & 45% losses of water (non revenue water)?	Water supply capacity of 540 mgd is calculated as the total filtration capacity as shown in Table 22.1.1. The source of data for each filtration capacity is KW&SB and they have been presented in our Progress Report No.1. In the absence of flow measurements at the bulk transmission canals, conduits & pumping stations, exits of service reservoirs and filtration plants as well as the customers' service connections, it is impossible to accurately establish the UFW and NRW in the existing system. We therefore assumed that the current UFW and NRW were 35% and 45% respectively based on the findings of existing reports and our experience in other developing countries.
		Q6-ii.	Where is the break-up of components (technical / non technical) of wastage of losses areas wise, town wise losses of water assessed duly supported by technical (manual/ground verification) by potable measuring devices in various stages of canal, bulk pumping, bulk conduit, bulk filter plans/reservoirs & different hydraulic based from distribution point reservoirs up to tail end in the distribution system town-wise?	Please refer to our answer to your question Q6-i.
		Q7-iii.	In the sewerage 60% of consumed water is called is sewerage generation and further how 60% of bulk water is declared as domestic water consumption?	Based on the data on revenue collection and bulk water supply customers provided by the Financial Department of KW&SB, we estimated that domestic water consumption is about 60% of the total water consumption.
		Q7-iv.	Why domestic & industrial /commercial consumption/consumers are named as domestic?	Please clarify your question.
9	2.2.1	Q7-v.	Instead of own study & investigation, the figure of 89% piped water supply has been borrowed & focus the data other as of KW&SB master plan infrastructure. Future demand of 1200 cusecs is declared without on ground justification of residential / commercial areas based as per ground position and also without obtaining the future plans taken from LDA, MDA, Coastal Development Authority, Cantonment Boards and various town with details of housing, commercial & industrial schemes area wise to be incorporated in future population & future demand of utilities.	Piped water supply ratio of 89% comes from the survey results by CDGK. The results of our survey on 1,000 households (including 600 in Katchi Abadis) show that about 80% of households have water line connections as shown in Chapter 8.

		Q7-vi.	In absence of outcome of alternate route study from M/s. Osmani how three nos. filter plants at different location & quantity of each plant as 240 mgd & three stages of K-IV, K-V & K-VI has been proposed without any authentication? Apparently Keamari Town can't get water?	As mentioned in Progress Report No.2, we proposed that Karachi should be separated into three distinct hydraulic zones. We also proposed that three filtration plants each having a capacity of 240 mgd should be constructed at a high altitude to serve these hydraulic zones. Please inform us about K-V and K-VI because we do not know these projects and our Progress Report No.2 does not mention anything about these projects. Keamari town will be able to get water under the proposed system.
		Q7-vii.	Why alternative route study is named by you as K-IV?	Name of K-IV is used by KW&SB and CDGK. We just referred to "Progress Report, Quarter #3 (Months 7/8/9) of Feasibility Study for Future Alternate Route of Bulk Water Supply and Long Term Expansion of Karachi Water Supply System from Kinjar Lake" provided by KW&SB. In this report, word of K-IV was used.
10	2.2	Q8-vi.	What is justification for services areas presently 90% and is 2010 as 95%, 2015 as 100%, 2020 as 100%, 2025 as 100% & all in absence of identification of projects with no commitments of funding from any?	They are targeted service ratios in future and facility planning is made to achieve those targets. Donors/funding agencies will fund projects if they think that such projects are technically sound and financially viable.
		Q8-vii.	Such targets shall be acceptable by giving names of residential areas with population of proposed units / houses target wise ?	We calculated town-wise served population and service ratio.
		Q9-i.	How you have worked-out the demand of water per capita availability of water can not be named as demand?	Internationally, it is called "constrained water demand" due to the limited availability of water sources.
11		Q9-ii.	All the figures / table shall required the figures as per real demand under engineering break-up / calculation & as per requirement of WHO. All table may be clarified page-11, 12, 13, 14 & 15 including at any water loss as mentioned above?	To our knowledge, WHO does not provide any guidelines/recommendations on per capita water consumption. If you have such information, please provide it to us. According to the Water Supply Policy of Government of Sindh (May 2006), minimum water requirement for piped water supply system in urban areas is 50 liters per capita per day.
12		Q10-i.	Is design standard / criteria based upon engineering technology? If so mention the source of data & highlighted the engineering manuals/other data quoted and make port of Appendices?	Yes, Progress Report No.2 included some explanation about standards used for pipeline network analysis. We applied standards which are commonly used for water supply and sewerage planning. Design criteria or standards used for preliminary design will be discussed at F/S stage and also detailed in our draft final report.
		Q10-ii.	Is there any design standard highlighted for size, material of pipe network alongwith engineering formulae including the service pipes plumbing fixtures including specification for fixture of making connections upon KW&SB water mains?	Please refer to our answer to your question Q10-i.
		Q11-i.	Why not sewerage generation shall be 60%? Give documents/supporting materials for justification of 70% proposed?	There is no universal criteria regarding the ratio of sewage generation to water consumption. We adopted the figure of 70% described in S-II.
1	3	Q11-ii.	Why the population of three towns does not hold details of public housing scheme/existing houses with name of areas / UCs alongwith number of plots existing & to be created in future upto 2025 ?	The population of three towns is shown for reference. Our master plan will not deal with the sewage generated in these areas as explained in the Steering Committee on February 28.

1	Planning frame work basis policy & goals & strategy	4	Q12-i.	The population 94% in three towns (without area-wise/housing schemes details) and 6% in the remaining towns against total 27.5 million in 2020 needs review and necessary details because on other place it is shown 50% in three town and 50% in rest of 15 towns?	Please clarify your question.
			Q12-ii.	Have you obtained the population figures & housing units from LDA, MDA and 06 Nos. Cantonment Boards, DHA & other constituent bodies and are they included in this figure or not?	We follow the population projections made by KMP-2020 which we think have considered the populations and housing units in LDA, MDA, Cantonments, DHA, etc..
			Q12-iii.	Do you know that KW&SB can contribute for Outer Water Trunk Mains, Outer Sewers, Outer Drainage and Nallah whereas internal arrangement of network is to be laid by development authorities / constituent bodies.	Please clarify your question.
			Q12-iv.	Is there any feasibility report / cost analysis for dual water supply system and dual sewerage alongwith details of demand oriented specific areas / consumers ensure for cost recovery to satisfy the donors and fulfil financial sustainability criteria of KW&SB?	International experience indicates that neither dual water supply systems nor dual sewerage systems are financially feasible in the foreseeable future.
2			Q13-i.	Did you consult to joint report of KW&SB, P&D & Irrigation Deptt., officers committee after which scheme of irrigation deptt., GOS for ensured water supply for Karachi was approved by ECNEC / GOP which also includes sustainability of irrigation deptt. infrastructures for future 1200 cusecs? Also have the details assessing 1200 cusecs for future water base upon demand of households (existing & developed plants in future) alongwith new industrial / commercial sites to absorb main power equivalent to existing & need of water utility of these commercial schemes with the requirements of water if you have obtain from competent forums ?	Please clarify your question.
			Q13-ii.	How you decided that instead of KW&SB GOS would plan, design & implement infrastructure development from kinjhar lake to Karachi City ? Where as you purpose for KW&SB to under take Irrigation infrastructure who?	Please clarify your question.
5	4.1.2		Q14-i.	How you have written 720 mgd work water supply capacity whereas you have written 540 mgd page-8 chapter 2.2.1. The break-up of water losses separately for all technical and non technical reason including evaporation losses at canal and filter plant (which are under open sky). Completely reducing of 40% water losses is shown as complete availability by declaring availability of 15.50 gallon per capita per day upon 90% of city population 15.12 million in 2005 ?	720 mgd shown on Page 4-5 is the total bulk water supply capacity while 540 mgd shown on Page 2-8 is the total water supply capacity. Please clarify the second part of your question.

6	Q15-i.	Have you proposed the design standard of fixture in house including their service pipeline to ensure no leakages for purpose of water conservation?	Have you given recommendation for public awareness to encourage tax payment culture particularly who are availing the water & sewerage facilities but do not pay?	We propose that each and every household should have a water meter and should be charged based on the volume of water actually consumed by the household.
	Q15-ii.	Do you go through existing subsidy system built in the existing tariff including payable subsidy to KW&SB by CDGK/GOS/GOP.	Did due include mechanism of tariff & ensured recovery from Katchi Abadis consumer?	We believe that (a) improvement of service quality and (b) strict/invariable enforcement of anti-payment defaulter measures (eg. disconnection) are necessary to minimize the number of payment defaulters.
	Q15-iii.	Did you read the PC-II of alternate route study & record of matters lingered on between irrigation & KW&SB on various issues ?	Did you review the upto date set-up of water supply since partition & are you aware of the disaster crises appeared when bulk water & distribution were continued under such proposed role separation?	Please clarify your question.
	Q15-iv.	Did you highlight to different cross subsidies tariff introduced to other countries highlighting the merits and demerits to be more options during restructuring of tariff?	Did you anticipate the drawbacks of seller & purchaser in such unified integrated water supply system ?	We propose that low tariff block (lifeline block) should be applied to the essential use to protect the poor.
7	Q16-i.	Did you review the upto date set-up of water supply since partition & are you aware of the disaster crises appeared when bulk water & distribution were continued under such proposed role separation?	Did you anticipate the drawbacks of seller & purchaser in such unified integrated water supply system ?	No we did not. Please provide us with copies of the PC-II and the records of such matters.
	Q16-ii.	Did you highlight to different cross subsidies tariff introduced to other countries highlighting the merits and demerits to be more options during restructuring of tariff?	Did you anticipate the drawbacks of seller & purchaser in such unified integrated water supply system ?	Please clarify your question.
9	Q17-i.	Did you review the upto date set-up of water supply since partition & are you aware of the disaster crises appeared when bulk water & distribution were continued under such proposed role separation?	Did you anticipate the drawbacks of seller & purchaser in such unified integrated water supply system ?	Please clarify your question.
	Q17-ii.	Did you highlight to different cross subsidies tariff introduced to other countries highlighting the merits and demerits to be more options during restructuring of tariff?	Did you anticipate the drawbacks of seller & purchaser in such unified integrated water supply system ?	Please clarify your question.
13	Q18	Did you point out on ground survey of the highest & hilly locations in the city to be utilized/acquired upon COD analogy under which no electrical expenditure incurs from Kinjar Lake to tail end of distribution system expect only Dhabaji pumping station expenditure? Can't it be a solution of energy saving & avoiding structures small reservoir proposed for future although there are no details of those reservoir location.	Did you point out on ground survey of the highest & hilly locations in the city to be utilized/acquired upon COD analogy under which no electrical expenditure incurs from Kinjar Lake to tail end of distribution system expect only Dhabaji pumping station expenditure? Can't it be a solution of energy saving & avoiding structures small reservoir proposed for future although there are no details of those reservoir location.	We agree that the point raised in your question is very important. The plan shown on Page 5-13 of our Main Report is one of the options we evaluate. We will evaluate other options which are less dependent on pumping with a fewer number of service reservoirs.
	Q19	24 hours continue water supply at minimum pressure above 20 psi be related to existing city network whether its can sustain such pressure are can it be made possible to maintain such pressure at each and every corner of the city?	24 hours continue water supply at minimum pressure above 20 psi be related to existing city network whether its can sustain such pressure are can it be made possible to maintain such pressure at each and every corner of the city?	We propose that in areas where DNI has been completed water should be supplied 24 hours continuously with a minimum system pressure of 10 meters of water column at the end of the distribution system. To this end, we envisage that those existing distribution pipes that will not be able to withstand the system pressure will need to be replaced as part of the DNI.
	Q20-i.	Did you consider the desilting & rehabilitation/upgrading large sized sewer to meet additional impact of multi story / high rise building structures in different towns ?	Did you consider the desilting & rehabilitation/upgrading large sized sewer to meet additional impact of multi story / high rise building structures in different towns ?	Sewer maintenance such as desilting/rehabilitation will be taken into account in operation and maintenance part of the master plan. Dimensions of sewers are determined based on the sewage generation.

17			Are you aware that new sewerage system in new housing areas is to be laid by development authority & private housing authorities who recover out development charges from their allottees but they either don't provide or if same times with out approval of KW&SB. Do you have the detailed calculation/exercise to the clear expenditures of O&M & rehabilitation equivalent to only 50% of water charges per proposed increased tariff.	We assume that sewerage systems in new housing areas are to be developed by development agencies under the control and supervision of KW&SB.
15			Q21	In many countries, sewerage charges are collected as a proportion (50-80%) of the charge for clean water supply. We propose that sewerage charge in Karachi should be increased at least to 50% of the increased water supply charge (some multiple of the current water supply charge) in areas where DNI has already been completed.
16			Q22	Did you have calculation/exercise based upon ground survey to highlight existing condition of storm water drain /nallah alongwith volume of work required for desilting, rehabilitation & introduce new drains in the un-serviced areas of katchi abadis, housing societies and other constituent bodies and also give detailed calculations for a drainage tariff if you have proposed? We recognize the necessity of desilting nallahs/drains, but little data is available on dimensions of these facilities, which makes it very difficult to calculate the volume of garbage and silt to removal. Drainage tariff is not taken into account because the beneficiaries of drainage systems are not identifiable.
19			Q23-i.	Have you given at any place the engineering standards / design criteria for location / relocation of water supply and sewerage pipelines including for sizes minimum of earth cushion & other including design parameters of storm water drains including channelization of nallahs? Please refer to our answer to your question Q10-i.
			Q23-ii.	Do you support non covering nallahs/drains (except crossing of roads and in amenity place) duly notified by GOS to ensure cleaning poential prior to rain, during rain and even after? Since it seems very difficult to raise people's awareness of appropriate garbage disposal in a short period of time, open channels are somewhat better than covered ones for easier removal of garbage and silt.
			Q23-iii.	Do you now GOS has already extended jurisdiction of KW&SB for all the six cantonment board regarding water supply & sewerage system? No we don't know it. Please provide us with a copy of GOS's notification letter to this effect.
			Q23-iv.	How you have eliminated the under ground Dumlottee water source of supply to be further developed. As explained in detail by Progress Report No.1, at present Dumlottee wells can produce approximately 1.4 mgd of water during only a few months immediately after the rainy season. Therefore we concluded that the Dumlottee Well Field was no longer a reliable source of future water supply for Karachi.

VOLUME 2: APPENDICES

Page No.	Chapter No.	Title	Questions Asked by KW&SB	Answers Provided by JICA Study Team
A 12-8	7	Minutes	DNI was to be undertaken subject consultation with KW&SB and willing of the community and other pre-requisite. Has steps taken which may be described to justify these pre-requisite and mention in progress report and also in the response report to be submitted to the Steering Committee	The locations of the candidate pilot project areas were selected in close consultation with KW&SB engineers and given the current water supply and sanitation conditions of the areas. Please refer to Page 7-1 of Chapter 7 of the Main Report.
A 12-9			Actual population residing in formal settlements called Kachi Abadies along with calculations based upon ground survey of dwellers for access to drinking Water and Sanitation facilities is required included as chapter in Master Plan	We follow the town-wise population projections made by KMP-2020, which we think have included the actual populations of Kachi Abadis in each town. We surveyed 600 households in various Kachi Abadies and as a result found out that 76% of them have access to the piped water supply system and 91% of them have a means to dispose their wastewaters to the nearby gutters or drains.
A 12-18			Practical on ground survey with area-wise calculations need to be presented against reasons given for inadequate and in equitable water major issues	Please clarify your question.
A 12-19			Furnish the outcome of co-ordination made by M/s. JICA with stake holders including LDA, MDA, DHA, Contonment Board BD Scheme 33 Surjani Town and others produce their Canals and whether in incorporated as per plots for future requirements of water & sewerage including the Drains and Nallians ?	KW&SB has officially sent a questionnaire to various stakeholders asking for their cooperation with JICA Study Team by providing information requested in the questionnaire (Please refer to Attachment-F). We understand that KW&SB has so far received replies from only two of such stakeholders namely, Malir Cantonment and Faisal Cantonment. The information received from these stakeholders has been transferred from KW&SB to JICA Study Team and has already been incorporated into the GIS of the JICA Study Team.
			Why Durnlottee source of water is eliminated for further development.	Please refer to our answer to your question Q23-iv.
			Have you considered any allowance of stop gap in bulk generation projects in the feasibility study?	Please clarify your question.
			Have you considered to utilise high elevated hills/mountains for service reservoirs in order to distribute water by gravity from the reservoirs as much as possible. Also, please refer to our answer to your question Q18.	Yes, we considered to utilise high elevated hills/mountains for service reservoirs in order to distribute water by gravity from the reservoirs as much as possible. Also, please refer to our answer to your question Q18.
A 12-29			Why creation/enforcement of sewerage and drainage updated bye-laws are not included for the purpose of DNI?	Please clarify your question.
			Have you discussed the bench marks and fixation of target, (time bond) for DNI project with prior approval of KW&SB along with strategy?	Please clarify your question.
			Did you consider the previous pilot projects which were under-taken but were failed including to explore the reasons?	We understand that the main reason for the failure of the previous pilot project was that it was not accompanied by the improvements in service quality.
			What is out come of co-ordination of JICA with M/S. Usmani about study of alternate route of bulk water upto 2025 ?	We discussed K-IV Projects especially locations of proposed filtration plants, capacity of each plant and year of operation of each plant with Osmani & Company (Pvt.) Ltd. Osmani provided location map of proposed plants as attached to Progress Report No.2 (Figure 22.2.1, page 2-10) for us. In addition KW&SB gave us Progress Report Quarter #1 to #3 prepared and submitted by Osmani.
			Q34-(iv)	

			Why the chapter of Drainage is not included which is big as sewerage system for purpose of rehabilitation. Tariff preparation, revenue collection including public awareness against misuse, encroachment, throwing garbage/solid wastes in Drains / Nallahs ?	Q35-(v)	Why the chapter of Drainage is not included which is big as sewerage system for purpose of rehabilitation. Tariff preparation, revenue collection including public awareness against misuse, encroachment, throwing garbage/solid wastes in Drains / Nallahs ?	No chapter for drainage sector is provided in Appendix. Drainage tariff setting is not realistic because it is not possible to identify the beneficiaries of drainage systems. We recognize the necessity of desilting nallahs/drains but little data is available on dimensions of these facilities, which makes it difficult to calculate the volume of garbage/silt volume. The Interim Report will address the importance of raising people's awareness on appropriate use of nallahs/drains avoiding garbage dumping and encroachment. Please refer to our answer to your question Q3-ii.
A 68-1	Topic Human Resources Development		Why JICA failed to discuss with senior officers to KW&SB who were concerned experts?	Q36-(i)		Please clarify your question.
			Why not to repeat workshop for desired object of workshop due to outcome as weak recommendations ?	Q37-(ii)		Please clarify your question.
			Why the targets of more coverage of service area are given is over ambitious?	Q38-(iii)		
A 82-51			Why the chapter of Sewerage system / Drainage misuse is not included in the chapter of public awareness/enhancement i/c updating the bye-laws ?	Q39-(i)		Page A82-51, (7) Public Awareness Enhancement, 2) Environmental Awareness includes household's perceptions on current environment, which need to be understood for effective improvement of sewerage system. Misuse of drainage including nallahs such as encroachment is addressed in Page A82-75 as part of Nala Awareness Survey. Chapter 8 and its appendices intend to present the results of Water Awareness Surveys; they do not intend to propose countermeasures to solve the problems.
			Why the effective procedure of bill distribution and recovery, collection is not highlighted in NDI, Pilot project. The very essential steps towards financial sustainability of KW&SB including monitoring tools and updating the rules of recovery presently almost non-existent ?	Q40-(ii)		Please refer to "CONCEPTS AND AIMS" on Page 7-13 of Chapter 7 of the Main Report which emphasizes that the DNI Pilot Projects should have efficient systems with regard to meter reading, billing, bill collection, etc.
			Why the expenditure of filling charges of water tanker supply not highlighted as reimbursable from sponsors of those Kachi Abadies where there is no water supply responder net work available and supply is made on humanitarian grounds ? The shape of subsidy can be humanitarian ?	Q41-(iii)		Please clarify your question.
			Although availing water and sewerage facilities but do not pay considered such defaulters in the report along with proposals to establish writ of Government against defaulters for making recovery ?	Q42-(iv)		Please clarify your question.
A 82-39			Have you considered the responsibility of laying infrastructures and which authority CDGK or SKAA /GOS responsible for unserved areas otherwise it would go increasing and getting water free of cost ?	Q43-(i)		This appendix intends to show only the results of Water Supply and Sewerage Usage Survey; it does not intend to discuss about the organizational arrangements/responsibilities for future infrastructure development in unserved areas.
A 82-37			Have you considered the tariff of Kachi Abadi as per low consumption without washing the cars, without having lawns /gardens while proposing the Tariff restructuring ?	Q44-(i)		This appendix intends to show only the results of Water Supply and Sewerage Usage Survey; it does not intend to discuss about the tariff structure in Kachi Abadies.
A 82-36			Quote the source of data where sewerage connection rate is shown higher than water connection rates because this statement is not acceptable ?	Q45-(i)		The result of our Water Supply and Sewerage Usage Survey indicated that water connection rate is lower than sewerage connection rate in certain areas such as large-scale Kachi Abadies where most people depend on water supplied by water tankers. The socio-economic survey recently conducted by CDGK has also indicated the same tendency in some towns (see Page A81-10).

ATTACHMENT-A

**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



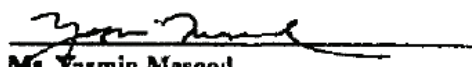
**Brigadier Istikhar Haider
Managing Director
Karachi Water and Sewerage Board**



**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

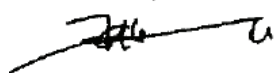
Karachi Water and Sewerage Board (hereinafter referred to as "KW&SB") shall act as a counterpart agency to the Japanese Study Team (hereinafter referred to as "the Study Team") and also as a coordinating body in relation with other governmental and non-governmental organizations concerned for the smooth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

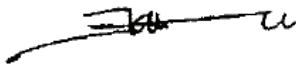
1. Review of the Master Plan formulated in 1985 and 1988



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

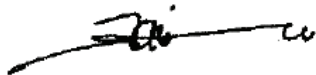
VI. SCHEDULE OF THE STUDY

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.

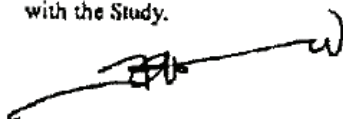
3. KW&SB shall be the executing agency and coordinating body in relations with other governmental and non-governmental organizations for smooth implementation of the Study.

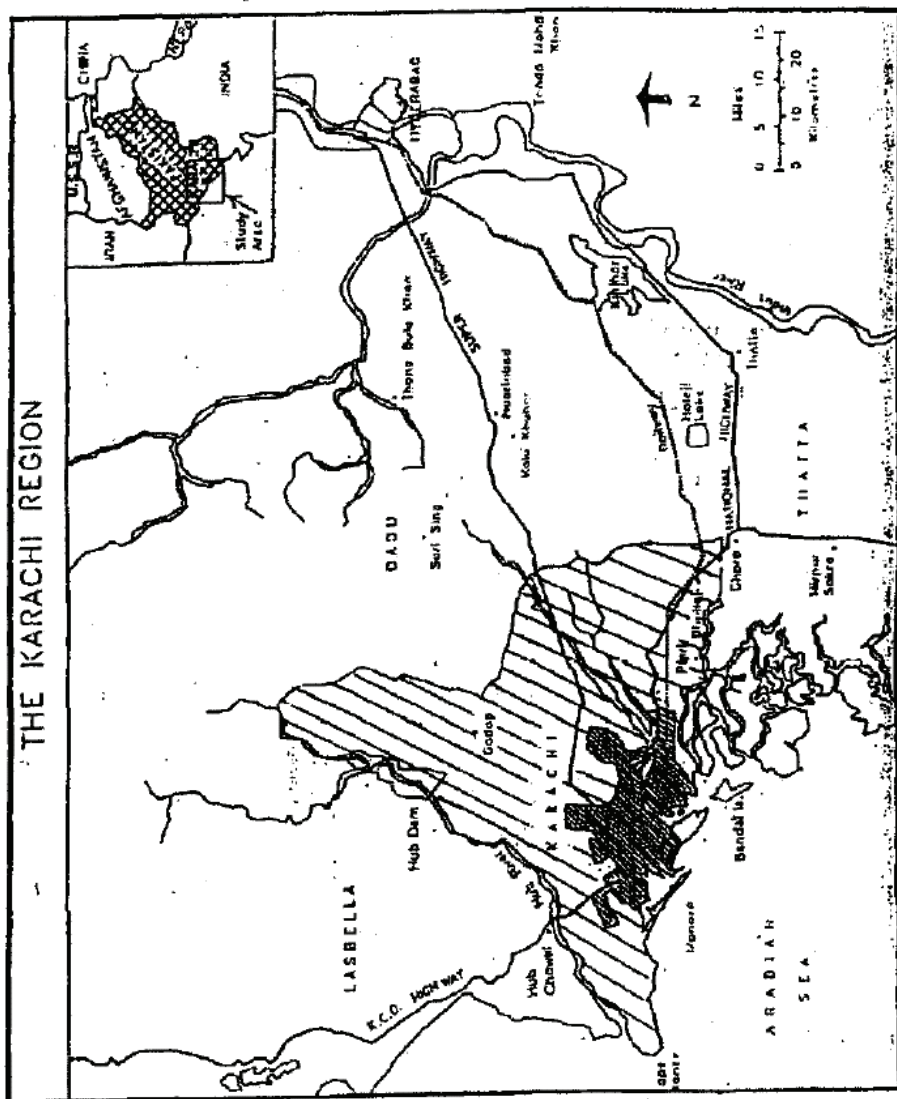
4. KW&SB shall at its own expense, provide the Study Team with the following, in cooperation with other organizations concerned;

- (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.





Tentative Study Schedule

IC: Inception Report
PR: Progress Report
IT: Interim Report
DF: Draft Final Report
FR: Final Report

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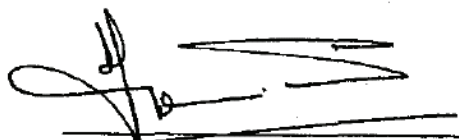
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ATTACHMENT-B

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)

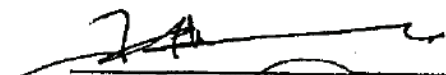
Karachi, March 17, 2006



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

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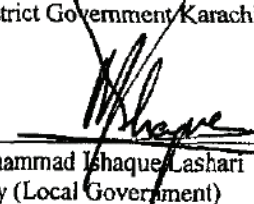
Mr. Sadanobu Sawara
Team Leader
JICA Study Team



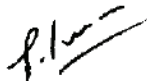
Mr. Fazlur Rehman
District Coordination Officer
City District Government Karachi



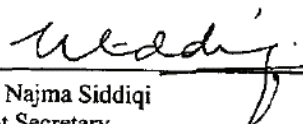
Mr. Yoshiki Omura
JICA Advisory Committee for the Study



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



Mr. Ghulam Sarwar Khoro
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

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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 *concerned* federal/government agencies in the Steering Committee on a required basis;
- 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

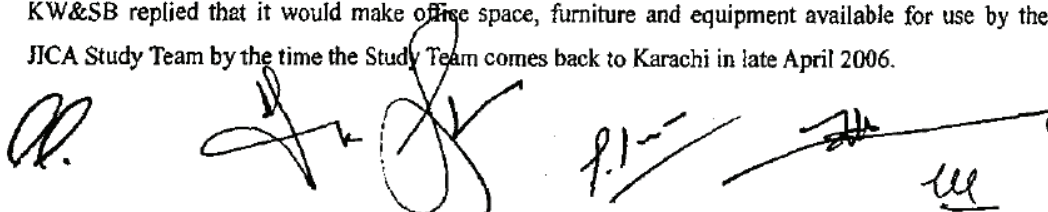
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Minutes of Meeting Page 2 of 3

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.

Five handwritten signatures in black ink, arranged horizontally. The first signature is a simple 'A'. The second is a stylized 'J'. The third is a large, circular 'S'. The fourth is a signature that appears to be 'P.1'. The fifth is a signature that appears to be 'U'.

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
------------------------------	-----------

City District Government Karachi, CDGK

Mr. Iftikhar Ali Kaimkhani	Executive District Officer (EDO), MPO
----------------------------	---------------------------------------

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>

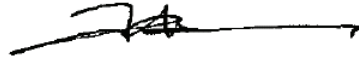
Mr. Sadanobu Sawara	Team Leader/Water Supply Planning
Mr. Takehiko Oga	Deputy Team Leader/Water Supply Facility Planning
Mr. Masakazu Nakao	Sewerage Planning/Facility Planning

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


ATTACHMENT-C

JAPAN INTERNATIONAL COOPERATION AGENCY GUIDELINES FOR ENVIRONMENTAL AND SOCIAL CONSIDERATIONS

April 2004



Japan International Cooperation Agency

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List of Acronyms

B/D	Basic Design
D/D	Detailed Design
EIA	Environmental Impact Assessment
IEE	Initial Environmental Examination
JBIC	Japan Bank for International Cooperation
JICA	Japan International Cooperation Agency
MOFA	Ministry of Foreign Affairs
OECD	Organization for Economic Cooperation and Development
R/D	Record of Discussions
S/W	Scope of Work
TOR	Terms of Reference

Preface

Principle 17 of the Rio Declaration on Environment and Development proclaims that an Environmental Impact Assessment, as a national instrument, shall be undertaken for proposed activities that are likely to have a significant adverse impact on the environment and are subject to a decision of a competent national authority. Agenda 21 proposes that the governments should, at the national level, promote the development of appropriate methodologies for integrating energy, environmental and economic policy decisions for sustainable development, inter alia, through environmental impact assessment (9.12(b)). The Universal Declaration of Human Rights makes clear a common standard of achievement for all peoples and all nations to promote respect for human rights and freedoms, and to secure their universal and effective recognition and observance. In 1985, the OECD Council Recommendation on Environmental Assessment of Development Assistance Projects and Programs was endorsed, and since then multilateral donors including the World Bank and main bilateral donors have prepared guidelines for environmental considerations and applied them.

JICA, which is responsible for the implementation of technical cooperation and the preliminary study of grant aid projects in Japan's bilateral grants, prepared environmental guidelines for infrastructure projects in 1990, in response to a proposal made by the first JICA Working Task on Environmental Cooperation in 1988, which introduced a screening and a scoping process to the preparatory study of Development Study. After more than ten years since the former guidelines were prepared, JICA decided to revise them, in response to the need for preparing basic principles of environmental and social considerations for all of JICA's activities. The revisions extended the range to be covered by the guidelines, promoted information disclosure, and strengthened the internal organization to ensure compliance with the guidelines and to enhance environmental and social considerations for the Official Development Assistance according to the governmental policy.

In December 2002, JICA established a committee for revising JICA guidelines for environmental and social considerations. The members of this committee were from universities, NGOs, private sector and related ministries. The committee held nineteen meetings which were open to the public and submitted its proposal of new guidelines to JICA in September 2003. JICA then established a follow-up committee for the guidelines in November 2003 and a draft of guidelines prepared by JICA was reviewed by the follow-up committee. JICA requested public comments from December 2003 to February 2004 for two months and incorporated submitted comments into the guidelines. JICA completed the new guidelines for environmental and social considerations in March 2004.

These guidelines cover development studies, preliminary studies of grant aid projects and technical cooperation projects. The Business Protocol and Mid-term Plan of JICA state clearly that JICA implements cooperation activities in accordance with the guidelines. JICA encourages the recipient governments by conducting cooperation activities to implement the appropriate measures for environmental and social considerations, and at the same time JICA gives support for and examination of environmental and social considerations according to the guidelines. JICA will make a comprehensive review of the guidelines within five years of their enforcement and revise them if necessary.

ATTACHMENT-D



KARACHI WATER & SEWERAGE BOARD

Office of the Chief Engineer (Infrastructure & Planning, Design)

(Water & Sanitation Department, CDGK)
Block-E, 9th Mile Karsaz, Shara-e-Faisal, Karachi

No. KW&SB/CE/I&PD/2007-211

Dated: 1st Feb'2007

Sub: Workshop Regarding Human Resource Management & Human Resource Development

Ref: Meeting with JICA Team on 26-01-2007 with MD, KW&SB

KW&SB senior staff members are requested to attend the workshop on 06-02-2007 on 10.00 A.M. to discuss the new approach to Human Resource Management and Human Resource Development.

The Concept Paper, Scheduled Program and list of Participants are enclosed.

Venue : Sheraton Hotel (Sumbul)

Chief Engineer (I&PD)
KW&SB

Distribution:
All Participation

CC to:

1. The MD, KW&SB
- ✓ 2. JICA Team Leader

CONCEPT PAPER

The current reforms and commercialisation agenda is presenting a number of challenges to KW&SB, including the need to ensure that there are appropriate arrangement in place for effective human resources management and development.

The aim of the workshop is to enable a forum where senior KW&SB managers can express ideas and concerns in an open and honest environment with the idea of transforming KW&SB into a customer focused efficient and commercially sustainable professional organization. This will require a fundamental shift away from current business principles and will require a new approach to human resource management (HRM) and human resource development (HRD).

The workshop is designed to engage participation and the sharing and development of ideas amongst KW&SB senior managers by use of facilitated workgroups who will be asked to consider two specific areas related to HRM and HRD.

SESSION – 1 : TRANSFORMATION OF HRM PRACTICES

The work groups will be asked to consider:-

- Practical solutions to develop a harmonized, skilled and committed workforce where all employees are fully aware of what is expected of them and what they should expect from KW&SB.
 - Ensuring that all are treated fairly and consistently and that contributions to the success of KW&SB are recognized and rewarded.

SESSION – 2 : TRANSFORMATION OF HRD PRACTICES

The work groups will be asked to consider:-

- Practical solutions to ensure that KW&SB are able to meet the reforms/ commercialisation agenda which call for
 - New skill
 - New ways of working
 - New values and behaviours
 - New business processes and system

The proposed programme is as follow:-

TIME	TOPIC	ACTION
10.30 A.M.	Introduction and recap on activities so far	Facilitators
11.00 A.M.	Break-out groups (transformation of HRM) (45 minutes)	Group Facilitation
11.45 A.M.	Groups present findings (45 minutes)	Groups
12.30 P.M.	Break-out groups (transformation of HRD) (45 minutes)	Group Facilitation
13.15 P.M.	Groups present findings (45 minutes)	Groups
14.00 P.M.	Discussion / Conclusions / Way forward	All
14.15 P.M.	Lunch	

**THOSE TO BE INVITED TO PARTICIPATE IN THE HUMAN RESOURCE
MANAGEMENT & DEVELOPMENT WORKSHOP**

S.NO.	DESIGNATION	NAME
1.	Chief Engineer (Zone-I)	Mr. Imran Asif
2.	Chief Engineer (Zone-IIA)	Mr. Najam-e-Alam
3.	Chief Engineer (Zone-IIB)	Mr. Mohammad Arif
4.	Chief Engineer (Zone-III)	Mr. Qutab Shaikh
5.	Chief Revenue Officer	Mr. Mehmood Qadir
6.	Director (RA&BT)	Mr. Ishtiaque Ahmed
7.	Director (Zone-I)	S.M. Ghayas
8.	Director (Zone-IIA)	Mr. Muhammad Aslam
9.	Director (Zone-IIB)	Syed Masood Akhter
10.	Director (Zone-III)	Syed Mashood Hussain
11.	Director (Billing)	Mr. Ghaffar Ahmed
12.	Meter Division WMD-I	Mr. Manzoor Yamin
13.	Meter Division WMD-II	Mr. Tariq Latif
14.	Dy. Director, Landhi	Mr. Abdul Saleem
15.	Dy. Director, Malir	Mr. Shabbir Ahmed Jarwar
16.	Dy. Director, Jamsheed	Mr. Tariq Jamil
17.	Dy. Director, Gulshan	Mr. Sheikh Khalid Sultan
18.	Dy. Director, City	Mr. Mehmood H. Khan
19.	Dy. Director, Orangi	Mr. Chundhry Tariq Jawaid
20.	Dy. Director, Gulberg	Mr. Zulfiqar Ali Brohi
21.	Dy. Director, Baldia	Mr. Nisar Magsi
22.	Dy. Director (Major Consumer)	Mr. Faheem Ahmed Siddiqui
23.	Dy. Director (RA&S)	Mr. Sohail Khalid
24.	Dy. Director (Industries-I)	Mr. Shahid Ali Khan
25.	Dy. Director (Industries-II)	Mr. Zahid Lateef
26.	Dy. Director (GPS)	Mr. Ateeq Ahmed Siddiqui
27.	Director (Accounts)	Mr. Muhammad Iqbal
28.	Advisor Finance	Mr. Muhammad Ayub
29.	Asst. Accounts Officer, Zone-I	Mr. Nizamuddin Siddiqui
30.	Asst. Accounts Officer, Zone-II.	Mr. Obaid Ahmed Khan
31.	Asst. Accounts Officer, Zone-III	Mr. Abdul Jabbar Shaikh
32.	Asst. Accounts Officer, (E&M)	Mr. Mohammad Hanif
33.	Asst. Accounts Officer, (BT)	Mr. Mirza Sajid Baig
34.	Administrative Officer, Zone-II	Mr. Waseem Qureshi
35.	Administrative Officer, (BT)	Mr. Mohd Hanif Shahid

S.NO.	DESIGNATION	NAME
36.	Chief Administration Officer	Mr. Abdul Rauf
37.	Director (Personnel)	Mr. Wasim Ahmed Qureshi
38.	Director (PRO)	Mr. Qadeer Ahmed
39.	Advisor Media	Mr. Azizullah Sharif
40.	Director (Training)	Mr. Tehseen Manzar

ATTACHMENT-E

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

Ref: No.: *SL/15T/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

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 input. 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.

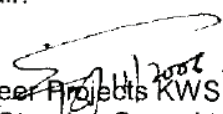
10- DMD Planning KWSB commended the effort of JICA Master Plan Study Team in compiling a database on water and sewerage which was supplemented with sample surveys carried out by the team regarding leakage in Landhi Town and Gadap Town similarly sample water quality surveys were also conducted along with 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 KW&SB/
Secretary Steering Committee

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

ATTACHMENT-F

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**OFFICE OF THE CHIEF ENGINEER (PROJECTS)
KARACHI WATER AND SEWERAGE BOARD
9th Mile Karsaz, Sharaf Faisal, Karachi.**

Ref. No.: CE(P)/KWSB/2006/

Date: November 25, 2006

SUB: FUTURE POSSIBLE INSTITUTIONAL ARRANGEMENT FOR OPERATION AND MAINTENANCE OF WATER SUPPLY AND SEWERAGE SYSTEM BETWEEN KW&SB AND ITS MAJOR BULK CONSUMERS AND REQUEST FOR RELATED INFORMATION

This is to inform you that JICA (Japan International Cooperation Agency) Study Team is preparing Water Supply and Sewerage Master Plan for Karachi till 2025 with KW&SB counterparts. KW&SB and JICA Study Team have already briefed the progress of the study in the stakeholders meeting held on September 7, 2006. JICA Study Team is finishing the basic data collection phase and will start the formulation of the Master Plan in one month.

It is assumed on the basis of ongoing Devolution Process introduced by the Government of Pakistan that some Bulk Consumers would like to handover the operation and maintenance of their water supply and sewerage system to KW&SB. Since JICA Study Team will incorporate this aspect, too, into the Master Plan, it is important to discuss this policy related matter on the possible future handing over of operation and maintenance work and reach initial agreement between KW&SB and its Bulk Consumers prior to the formulation of the Master Plan.

If your organization is seeking for the possibility to hand over the operation and maintenance of its water supply and sewerage system to KW&SB, we need your organization to provide necessary information for understanding the current conditions of your system at attached questionnaire.

The projected demand of water and the quantum of disposal in the area of your jurisdiction will be needed to ascertain the future parameters.

JICA is going to arrange meetings with the interested Bulk Consumers in December 2006.

For any further queries your staff may contact Mr. Ifkhar Ahmed, Project Coordinator, JICA Study Team / SE (BWSC), KWSB (Ph: 0301-2217850) or Ms Farida Salam, Dy Project Coordinator / Manager (MSS), KWSB (Ph: 9245158-9).

Your respond and cooperation will be highly appreciated.

Chief Engineer (Projects)
KW&SB

Encl:

As above

Distribution:

- 1100 The Administrator (DHA)
Karachi.
- 1101 The CEO (Cantonment Board Faisal)
Karachi.
- 1102 The CEO (Malir Cantt.)
Karachi.
- 1099 The CEO (Karachi Cantt. Board)
Karachi
- 1103 The CEO (Cantonment Board Clifton)
Karachi
- 1104 The CEO (Cantonment Board Manora)
Karachi.

- 1105 The CEO (Cantonment Board, Korangi Kreek)
Karachi.
- 1106 The Chairman (SITE)
Karachi.
- 1107 The Chairman (F.B. Area Association of Trade & Industry)
Karachi.
- 1108 The Chairman (LATI)
Karachi.
- 1109 The Chairman (KATI)
Karachi.
- 1110 The DS (Railways)
Karachi City
- 1111 The Director General (CAA)
Karachi.
- 1112 The CE (PWD-Sindh)
Hyderabad.
- 1114 The DG (P&D) PQA
Karachi.
- 1115 The GM (P&D) KPT
Karachi.
- 1113 The Director (Dev.) PSM
Karachi.
- 1118 The Director (Industries) GoS
Karachi.
- 1120 The Secretary (KEPZ)
Karachi.
- No. 1119 The Chief Controller (KBCA)
Karachi.
- 1117 The Secretary (Cooperatives) GoS
Karachi.

C.C.:

1. The Managing Director, KWSB
2. Mr. Sadanobu SAWARA, Team Leader, JICA Study Team

Questionnaire and Required Information

Q1: Is your organization seeking for the possibility to hand over the operation and maintenance of its water supply and sewerage system to KW&SB in the future till 2025?

Your Answer: 1. Yes, 2. No

If your answer to Q1 is "1. Yes", provide information listed at the end of this questionnaire and respond to Q2.

Q2: Would your organization like to hand over the maintenance and operation of the system in all area or only selected area?

Your Answer: 1. All Area, 2. Selected Area

If your answer to Q2 is "2. Selected Area", please specify the area on your available map clearly.

1) Your Organization's Request and Suggestion, if any:

2) Your organisation's future projected demand of water and quantum of waste water disposal. Preferably, the location of project demand / disposal may also be indicated.

2) Contact Number of the Person who is in Charge of Preparing Required Information

Name:

Designation:

Mobile Phone Number:

Office Telephone Number:

3) Required Documents of Your Area

1. Facility Map of the Water Distribution System
2. Facility Map of the Sewerage System
3. Existing Reports on the Planning of Water Supply and Sewerage System
4. Record on the Related Capital Investment, Running Cost, and Revenue Collection
5. Current and future (up to 2025) population of the area which your organization want to handover
6. Current and future land use
7. Current and future water demand