

Appendices

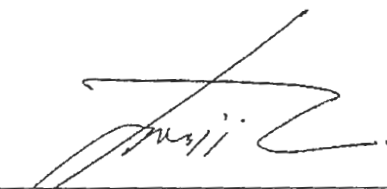
MINUTES OF MEETINGS
ON
SCOPE OF WORK
FOR
THE STUDY
ON
MASTER PLAN ON RENEWABLE WATER RESOURCES DEVELOPMENT
IN THE SOUTH WEST REGION IN THE KINGDOM OF SAUDI ARABIA

AGREED UPON BETWEEN
THE MINISTRY OF WATER AND ELECTRICITY
THE KINGDOM OF SAUDI ARABIA
AND
JAPAN INTERNATIONAL COOPERATION AGENCY
JAPAN

Riyadh, January 21, 2007



Dr. Ali Saad Al-Tokhais
Deputy Minister for Water Affairs
Ministry of Water and Electricity
(MOWE)



Mr. Kenji Nagata
Leader of the Preparatory Study Team
Japan International Cooperation Agency
(JICA)

I. INTRODUCTION

In response to the official request of development studies from the Government of the Kingdom of Saudi Arabia (hereinafter referred to as "the Government of Saudi Arabia") dated on 25th October 2000, the Government of Japan decided to conduct technical cooperation for the Study on Master Plan on Renewable Water Resources Development in the South West Region in the Kingdom of Saudi Arabia (hereinafter referred to as "the Study") in accordance with the relevant laws and regulations in force in Japan.

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, dispatched a preparatory study team from 8th to 15th December 2006 and from 12th January to 8th February 2007 for discussions on the contents of the Study.

JICA will undertake the Study jointly with the Ministry of Water and Electricity and in cooperation with the authorities concerned of the Government of Saudi Arabia.

During the stay of the preparatory study team in Saudi Arabia, the preparatory study team made field trip to the study area, and held a series of discussions with the Ministry of Water and Electricity (hereinafter referred to as "MOWE"). The list of participants is attached in the Appendix-1.

The Minutes of Meetings have been prepared for the better understanding of the Scope of Work agreed upon between the MOWE and the preparatory study team (hereinafter referred to as "both sides").

The main items that were discussed and agreed upon between both sides are summarized as follows:

1 Field survey in phase 1

Both sides confirmed that the field survey in phase 1 targeting the whole study area would be conducted to mainly confirm existing data and present condition, and in general would not include detailed surveys such as topographical survey, observation of wadi runoff and geophysical survey.

2 Hydrological observation

Regarding to hydrological observation in the whole Study area, MOWE requested that in phase 1 recommendation be made on hydrological monitoring network system and observation measures of wadi runoff based on evaluation of present conditions, and in phase 2 actual runoff observation in specific wadi basins be implemented. The preparatory study team agreed with the request in phase 1, and on the request in phase 2 agreed to consider the necessity of it based on the preparatory study result.

3 Water demand management and projection

MOWE suggested that the analysis and recommendation on water demand management should be included in the Study and should be taken into account to estimate water demand. The preparatory study team agreed with it.

4 Data collection and database

MOWE agreed to provide the JICA study team with all the available data in MOWE and assist for the JICA study team to collect information outside of MOWE. MOWE requested that data to be collected by the JICA study team should be computerized in available form compatible with the MOWE database format. The preparatory study team responded that the JICA study team would consider the request.

5 Selection of priority area for a master plan

MOWE requested that three (3) regions should be selected as priority area for the master plan study. The preparatory study team explained that one (1) region was appropriate to ensure the quality of the master plan. Both sides agreed that one (1) to three (3) priority regions would be selected for the master plan study based on the result of phase 1, paying attention to density of population, amount of water demand, water potential, social and economic characteristics and so on.

6 Stakeholder meetings

The preparatory study team requested to clarify who might attend stakeholder meetings as stakeholders. MOWE explained that stakeholders in phase 1 might be officers responsible to water resources development and management in 5 regions and municipalities concerned in the Study area, and ones in phase 2 might be water users and residents close to project sites to be proposed, in addition to responsible officers.

7 Technology transfer and capacity building

MOWE requested that counterpart personnel should take advantage of training in Japan related to the Study to promote effective technology transfer. The preparatory study team explained that the number of counterpart training in Japan might be at most two (2) to three (3) a year. While, increasing the number of the counterpart training will be decided by JICA based on the necessity, affordability and cost sharing.

8 Counterpart team

The preparatory study team requested MOWE to assign a counterpart team to the JICA study team. MOWE agreed to make up a counterpart team and to give a tentative list of the counterpart team to JICA Saudi Arabia office within January 2007.

9 Steering committee

Both sides agreed that MOWE will set up a steering committee for the smooth implementation of the Study. It will be planned to consist of responsible persons of MOWE

and representatives of relevant organizations under the chairmanship of MOWE. MOWE agreed to submit a tentative list of the steering committee to JICA Saudi Arabia office within January 2007.

10 Environmental and social considerations

The preparatory study team explained JICA's environmental and social consideration guidelines, which will be applied to the Study. MOWE accepted the policy of the JICA's guidelines.

11 Executive summary of the final report

Both sides agreed that the JICA study team will prepare executive summary of the final report both in English and Arabic. The Arabic version shall be completed under supervision of MOWE.

12 Reports

Both sides agreed that the study report would be open to the public, in principle, in order to achieve maximum use of the study results.

13 Office space

MOWE agreed that office space with office furniture, air-conditioning, telephone lines and electricity would be provided inside of MOWE in Riyadh and in regional offices of MOWE for the use by the JICA study team.



Appendix-1 List of Participants

Saudi Arabian Side

Ministry of Water and Electricity

Dr. Ali Saad Altokhais, Deputy Minister of Water Affairs
Mr. Ahmed Abdullah ALGamdi, Director General of Water Resources Development
Department
Mr. Abdulaziz Abdullah Alkahlan, Hydrology Director
Mr. Helal A. Al-Harthi, Water Resources & Studies Division Director
Mr. Fahad Ahmed Al Beajian, Senior Geologist
Mr. Ghanem Abdulaziz AL Ghanem, Hydrology
Mr. Metib Saeed ALkahtani, Senior Geologist

Ministry of Economy and Planning

Mr. Ahmed Al-Hakami, Deputy Minister of Planning
Mr. Mahmoud Fayez, Advisor

Japanese Side

The Preparatory Study Team, JICA

Mr. Kenji NAGATA, Leader
Ms. Hiromi SAWADA, Cooperation planning
Mr. Hiroshi OKADA, Water Resources Development and Management (Surface Water / Social
and Environmental consideration)
Mr. Seimi MOCHIZUKI, Water Resources Development and Management (Ground Water)

JICA Saudi Arabia Office

Mr. Kiyofumi NAKAUCHI, Resident Representative
Mr. Yosuke KUSUNOKI, Assistant Resident Representative
Mr. Ihab M. Al-Sharkawi, Senior Program Manager

Embassy of Japan

Mr. Fumito BITO, Second Secretary



MINUTES OF MEETINGS
ON
INCEPTION REPORT
FOR
THE STUDY
ON
MASTER PLAN ON RENEWABLE WATER RESOURCES DEVELOPMENT
IN THE SOUTHWEST REGION IN THE KINGDOM OF SAUDI ARABIA

AGREED UPON BETWEEN

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THE KINGDOM OF SAUDI ARABIA

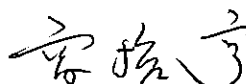
AND

JAPAN INTERNATIONAL COOPERATION AGENCY

Riyadh, July 7, 2007



Dr. Ali Saad Al-Tokhais
Deputy Minister for Water Affairs
Ministry of Water and Electricity
(MOWE)



Mr. Toru Takahashi
Team Leader of the JICA Study Team
Japan International Cooperation Agency
(JICA)

Witnessed by:



Mr. Ryuichi Tomizawa
Resident Representative
JICA Saudi Arabia Office
Embassy of Japan



Mr. Kenji Nagata
Leader of the Advisory Team
Japan International Cooperation Agency
(JICA)

In response to the official request of development studies from the Government of the Kingdom of Saudi Arabia (hereinafter referred to as "the Government of KSA") dated on October 25, 2000, the Government of Japan decided to conduct technical cooperation for the Study on Master Plan on Renewable Water Resources Development in the Southwest Region in the Kingdom of Saudi Arabia (hereinafter referred to as "the Study") in accordance with the relevant laws and regulations in force in Japan.

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, dispatched a preparatory study team from December 8 to 15, 2006 and from January 12 to February 8, 2007 for discussions on the contents of the Study. The Ministry of Water and Electricity (hereinafter referred to as "MOWE") and the preparatory study team agreed that JICA would undertake the Study jointly with MOWE in cooperation with the authorities concerned of the Government of KSA, and concluded the Scope of Work and the Minutes of Meetings on January 21, 2007.

JICA dispatched the Team for the Study (hereinafter referred to as "the JICA Study Team"), headed by Mr. Toru Takahashi, and the Advisory Team for the Study, headed by Mr. Kenji Nagata, to implement and support the Study on July 1, 2007.

The JICA Study Team submitted the Inception Report to MOWE and had discussions on its contents with the Steering and Technical Committees on July 1, 2 and 7, 2007. The list of Participants is attached in Appendix-1.

MOWE agreed with the contents of the Inception Report. The main items that were discussed and agreed upon between MOWE and the JICA Study Team (hereinafter referred to as "both sides") are summarized as follows:

1. Data collection

MOWE agreed to provide the JICA Study Team with all available data to be needed for the successful implementation of the Study.

2. Database

MOWE explained that MOWE had been establishing a database for meteorological, hydrological and GIS information. MOWE requested the JICA Study Team that an assessment on necessity and usability of the database between both sides for the Study should be made during the course of the Study. The JICA Study Team agreed to carry out the assessment of the MOWE database for the better use of the Study.

3. Water budget study

MOWE requested the JICA Study Team to carry out a water budget study on a

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province basis to clarify a deficit and surplus in water for agricultural, domestic and industrial purposes, etc. based on a water balance simulation. The JICA Study Team agreed to undertake the water budget study.

4. Target year of the Study

The JICA Study Team explained the importance of setting a target year of the Study to formulate the basic policy/strategy, the action plan and the master plan. Through discussions between both sides, it was confirmed that the target year should be set until the submission of the Plan of Operation Report at the end of August 2007.

5. Scope of the basic policy/strategy, the action plan and the master plan of the Study

Both sides confirmed that the scope of basic policy/strategy, the action plan and the master plan of the Study should be finalized through discussions until the submission of the Plan of Operation Report.

6. Selection of targeted provinces for the master plan

Both sides agreed that careful studies should be undertaken for the selection of targeted one to three provinces for the master plan through discussions together with both sides by the acceptable selection criteria such as data availability, hydro-geological conditions, renewable water resources potential, urgency, inter-provincial demand-supply relations, etc.

7. Environmental and Social Considerations

Both sides confirmed that the IEE (Initial Environmental Examination) for the Study shall be arranged by MOWE. The JICA Study Team committed to support the implementation of the IEE through the Study on environmental and social legislation, natural environment, socio-economical study and pollution.

8. Present status of a World Bank (WB)-assisted National Water Strategy and Action Plan

The JICA Study Team requested MOWE to clarify the progress of the WB-assisted study on the National Water Strategy and Action Plan. MOWE commented that Phase 1 and Phase 2 had been completed, but Phase 3 was not. The JICA Study Team requested MOWE to provide a copy of Phase 1 and 2 reports. MOWE agreed to provide them.

9. Stakeholders' meetings

The JICA Study Team requested MOWE to clarify who might be stakeholders to attend the stakeholders' meetings for the Study. MOWE agreed to clarify the stakeholders for the Study taking into consideration the specific conditions in KSA. The JICA Study Team committed to support the implementation of the stakeholders' meetings.

10. Steering , Technical Committees and Counterpart Team

MOWE disclosed a list of the Steering, Technical Committees and Counterpart Team members that is attached in Appendix-2. The JICA Study Team suggested that the

Steering Committee should be composed of not only MOWE and also the related authorities in relation to the Study, and counterpart team should be organized in the MOWE Headquarters and the regional offices as proposed by the JICA Study Team in the Inception Report to be corresponded with the JICA Study Team members. Regarding the Steering and Technical Committees for the Study, both sides agreed that MOWE would call for the related authorities at the Steering and Technical Committees' meetings if needed.

11. Counterpart training in Japan

MOWE requested the JICA Study Team to clarify a counterpart training program in Japan during the course of the Study. The JICA Study Team explained that the number and program of counterpart training in Japan would be decided in JICA Headquarters taking into consideration necessity, affordability and cost sharing after the official approval of the Government of Japan on the requests of the counterpart training program from the Government of KSA. The JICA Study Team suggested that MOWE should further discuss this matter in detail with JICA Saudi Arabia Office and the JICA Study Team to materialize the successful results through the training program in Japan.

12. Relationship with the 5-Year National Development Plan

Both sides examined the possibility of adoption of the results of the Study into the 5-Year National Development Plan. MOWE commented that the adoption would be possible in time. Both sides confirmed that discussions with Ministry of Economics and Planning (MOEP) might be needed during the course of the Study.

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27

Appendix-1 List of Attendants for Inception Report Meetings

THE STUDY ON MASTER PLAN ON RENEWABLE WATER RESOURCES DEVELOPMENT IN THE SOUTHWEST REGION IN THE KINGDOM OF SAUDI ARABIA

Name	Position
Ministry of Water and Electricity (MOWE)	
Dr. Ali Saad Al-Tokhais	Deputy Minister for Water Affairs
Mr. Ahmed Abdullah Al-Gamdi	Director General of Water Resources Development
Mr. Abdulaziz Al-Khahlan	Chief of Hydrology Division
Mr. Helal Ayedh Al-Harthi	Chief of Water research & Studies Division
Mr. Fahad Ahmed Al-Beajan	Senior Geologist
Mr. Metib Al-Khatany	Senior Geologist
Mr. Abdulaziz bin Saleh Al-Hassan	Senior Geologist
Mr. Ghanem Abdulaziz Al-Ghanem	Eng. Senior Hydrologist
Saleh Al Meeman	Eng. of Project Execution Dept.
Mr. Mohammed Al-Fahmi	Senior Geologist
Mr. Hatim Srin Ratah	Eng. Hydrologist
Mr. Al Mohammed Mojari	Eng. Civil (Asir Water and Division)
Mr. Ahmad Hassan Nejmi	Senior Geologist (Jizan Water and Division)
Mr. Faris bin Mohammed Dakhil	Senior Geologist (Najran Water and Division)
Mr. Habib Mohammed Khayat	Senior Geologist (Makkah Water and Division)
Mr. Jabir Al-Fifi	Senior Geologist (Al-Bahah Water and Division)
JICA Study Team	
Toru TAKAHASHI	Team Leader/Water Resource
Masayuki SHIRAISHI	Deputy Team Leader/Water Resource Development Management
Atsushi KATO	Coordinator
JICA Advisory Team	
Kenji NAGATA	Team Leader
Sanae YOSHIDA	Cooperation Planning
JICA in Saudi Arabia Office	
Ryuichi TOMIZAWA	Resident Representative
Yosuke KUSUNOKI	Assistant Resident Representative
Ihab M. Al-Sharkawi	Senior Program Manager
Embassy of Japan in the Kingdom of Saudi Arabia	
Seitaro TSUKUDA	Second Secretary

Appendix-2 List of Steering Committee, Technical Committee and Counterpart Personnel that MOWE disclosed for the Study

Steering Committee

No	Name	Position or Job Title
1	Dr. Ali Saad Al-Tokhais	Deputy Minister for Water Affairs
2	Mr. Ahmed bin Abdullah Al-Ghamdi	DG for Water Resources Development Dept.
3	Mr. Abdulaziz Al-Khahlan	Chief of Hydrology Division
4	Mr. Helal Ayedh Al-Harthi	Chief of Water research & Studies Division
5	Mr. Fahad Ahmed Al-Beajan	Senior Geologist
6	Mr. Metib Al-Khatany	Senior Geologist
7	Mr. Abdulaziz bin Saleh Al-Hassan	Senior Geologist
8	Mr. Ghanem Abdulaziz Al-Ghanem	Eng. Hydrologist
9	Saleh Al Meeman	Eng. of Project Execution Dept.

Technical Committee and Counterparts Team in MOWE Headquarters

No	Name	Position or Job Title
1	Mr. Abdulaziz Al-Hassan	Chief of Hydrology Division
2	Mr. Hatim Srin Ratah	Eng. Hydrologist
3	Mr. Anwar Al-Sheraimi	Senior Geologist
4	Mr. Mishary Al-Malki	Senior Geologist
5	Mr. Adel Al-Mudaimiq	Senior Geologist
6	Mr. Mohammed Al-Fahmi	Senior Geologist

Counterparts Team in the Provinces

No	Name	Position or Job Title	Province
1	Mr. Habib Mohammed Khayat	Senior Geologist	Makkah
2	Mr. Hani Othman Kemrin		
3	Mr. Faris bin Mohammed Dakhil	Senior Geologist	Najran
4	Mr. Abdullah bin Rashid Debis		
5	Mr. Ahmed bin Siraj	Senior Geologist	Asir
6	Mr. Abdullah bin Ali Al-Shihri		
7	Mr. Ahmad Hassan Nejmi	Senior Geologist	Jizan
8	Mr. Ibrahim Souwaidi	Observer	
9	Mr. Jabir Al-Fifi	Senior Geologist	Al-Bahah
10	Mr. Awadh Mahdi Al-Gharni		

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MINUTES OF MEETINGS
ON
PLAN OF OPERATION
FOR
THE STUDY
ON
MASTER PLAN ON RENEWABLE WATER RESOURCES DEVELOPMENT
IN THE SOUTHWEST REGION IN THE KINGDOM OF SAUDI ARABIA

AGREED UPON BETWEEN

THE MINISTRY OF WATER AND ELECTRICITY
THE KINGDOM OF SAUDI ARABIA

AND

JAPAN INTERNATIONAL COOPERATION AGENCY

Riyadh, August 25, 2007



Dr. Ali Saad Al-Tokhais
Deputy Minister for Water Affairs
Ministry of Water and Electricity
(MOWE)



Mr. Toru Takahashi
Team Leader of the JICA Study Team
Japan International Cooperation Agency
(JICA)

Witnessed by:



Mr. Ryuichi Tomizawa
Resident Representative
JICA Saudi Arabia Office
Embassy of Japan

The JICA Study Team (hereinafter referred to as "the Study Team") submitted an Inception Report, including a preliminary Plan of Operation, to the Ministry of Water and Electricity (hereinafter referred to as "MOWE") and had discussions on its contents with the Steering and Technical Committees of MOWE on July 1, 2 and 7, 2007. MOWE agreed with the contents of the Inception Report.

The JICA Study Team has started gathering related data and information, carrying out a field survey in the study area and reviewed the previous plans and studies. On a daily basis when needed, the Study Team has discussed and consulted with MOWE counterpart on matters such as hydro-meteorological data, available maps, reports and documents related to the Study.

On August 20, 21 and 22, 2007, approx. two months after the commencement of the Study, the Study Team and MOWE had a meeting on how the Plan of Operation shall be revised on a basis of the preliminary studies of the Study Team and occasional discussions with MOWE during the past two months.

MOWE agreed with the contents of the determined Plan of Operation. The main items that were discussed and agreed upon between MOWE and the Study Team (hereinafter referred to as "both sides") are summarized as follows:

1. Definitions

The Study Team proposed on definitions of the following items to keep the consistency and mutual understandings for a joint study between MOWE and the Study Team:

Region or province

The Study Team proposed a use of "region" for the Study, instead of using "province" to describe "mintaqah" that means a administrative region in KSA in Arabic. MOWE agreed with the Study Team to apply the use of "region" for the Study.

Geographical names

The Study Team informed MOWE of often noticing several different spellings for geographical name in English. The Study Team proposed MOWE to unify them into the one spelling. MOWE agreed with unification of spelling for the Study. MOWE also suggested that a geographical name in English applied by SGS might be applicable for the Study.

Renewable and non-renewable waters

The Study Team proposed to clearly define the meanings of renewable and non-renewable waters for the Study.

Both sides agreed that the following definitions can specifically be applied for the



situations in KSA:

Renewable water: "Water continuously renewed within reasonable time spans by the hydrological cycle, such as that in surface, sub-surface and underground that refill from precipitation and/or runoff. The renewability of a water source depends mainly on its natural rate of recharge."

Non-renewable water: "Water in aquifers that are not recharged, or are recharged so slowly that significant withdrawals will cause depletion like a fossil water in the arid areas."

2. Data collection

The Study Team explained to MOWE that the difficulties exist to gather statistical data, agricultural data, regional development plans, etc. which have to be collected from other ministries and governmental organizations such as MOEP, MOA, MOMRA, SWCC, etc. Both sides confirmed that the Study Team shall inform MOWE of necessary data and information and ministries to be addressed and requested, and then MOWE will make an official arrangement for acquisition of the required data and information for the Study.

3. Target year for strategy and master plan

The Study Team explained to MOWE that a target year is one of the prerequisites to formulate a vision, policy, strategy, action plan and master plan, explaining some thinks of setting a target year in international communities. Both sides finally concluded that the same target year, namely the year of 2035 which is 26 years after the finalization of the Study in 2009, will be applied for a vision, policy, strategy, action plan and master plan for the Study. MOWE also requested the Study Team to prepare a guideline for a 5-year periodic check for water balance and implementation programs to be corresponded with 5-year National Development Plans in the future. The Study Team agreed to prepare the guideline in the Study.

4. Scope of basic policy, strategy, action plan and master plan

The Study Team explained to MOWE the planning procedures from vision to master plan to share the common understanding of a scope of those plans. Both sides agreed that contents of those plans shall jointly be examined and evaluated during the course of the Study in Phase 1 taken into consideration the regional characteristics on the renewable water resources development and management and the terms used in the Study on National Water Strategy and Action Plan being prepared by the World Bank.

5. Treatment of WB-supported study on National Water Strategy

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The Study Team requested MOWE to disclose the present status of the WB-supported study on National Water Strategy. MOWE commented that the Phase II study on national water strategy was submitted and is under evaluation by MOWE. MOWE reported to the Study Team that the commencement of the next phase of the WB study on action plan of the water strategy is not decided yet. Both sides confirmed that a reference of the WB study on water strategy can be made, but the strategy proposed by the JICA Study shall be a region-specific one, therefore it will specify a regional water strategy and action plan in the study area based on the Basic Study in Phase 1 of the Study.

6. Water demand and supply data

The Study Team explained to MOWE the importance of collecting and analyzing data related to water demand and supply in each region and subdivided governorates to precisely make a water balance study in the present situation and in the futures up to the target year. MOWE agreed to assist the Study Team in collecting water demand and supply data in a region and governorate level.

7. Integrated Water Resources Planning and Management

MOWE and the Study Team discussed a relationship between renewable and other water resources in a water resources planning and management. The Study Team explained that a main focus of water resources development and management in the Study is mainly devoted to the renewable waters such as surface, sub-surface and groundwater by technical, engineering and scientific studies and analyses. The Study Team also explained that an integrated approach of water resources planning and management techniques is applied for overall water balance study and optimum implementation plan, taken into consideration not only renewable waters but also non-renewable water, desalinated water and reclaimed wastewater.

Both sides agreed with the above understanding for the Study, underlining that since potential renewable water resources in some regions cannot fully satisfy a future water demand by themselves unless additional water such as non-renewable water, desalinated water and reclaimed wastewater complement the shortage of water supply in the future water balance.

8. Stakeholders' meetings

Both sides confirmed that the Study Team and MOWE will jointly examine to set up a formation of the stakeholders' meeting based on the progress of the Study, including the participants, number of participants and venues by the Study Team.

It is thought that it takes much time for MOWE and the Study Team to prepare stakeholders'



meetings and also travel to five regions to organize the meetings. In order to minimize time for the stakeholders' meetings, the Study Team proposed to hold joint meeting and reduce the number of venues for the first and second meetings to two or three venues instead of five venues in each of the five regions. MOWE accepted the Study Team's proposal.

MOWE agreed that the preparation will be started in November 2007, three months before the first stakeholders' meeting in February, 2008.

9. Cooperation with other Ministries and Governmental Offices

The Study Team again requested to MOWE that the Study Team needs to jointly work with specialists of other ministries, agencies and other governmental offices. MOWE replied to the Study Team that MOWE makes an arrangement for the Study Team to cooperate with related organizations.

10. Counterpart training program in Japan

Regarding the counterpart training program in Japan for the Study, JICA Saudi Arabia Office informed MOWE that it is presently under the decision-making process by the Government of Japan, and JICA Saudi Arabia Office is scheduled to receive the result of her decision in a few months.

11. Measurement of surface runoff

The Study Team explained to MOWE that the Study Team adopted tentative monitoring sites for the measurement of surface runoff on a basis of a recommendation of MOWE. MOWE complied to assist the Study Team in handling matters for further evaluation.

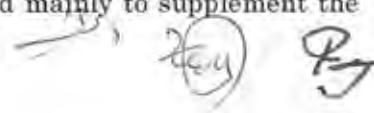
12. Rainfall monitoring station

MOWE requested that the installation of rainfall monitoring station would be necessary for the Study as rainfall has an effect on surface flow and subsurface flow.

The Study Team replied that the existing rainfall monitoring station network would be evaluated and the Study Team would inform MOWE of the necessity for a new installation of rainfall monitoring station, if necessary.

13. Satellite image analysis

In the Plan of Operation meeting, the Study Team explained the way in which satellite image is used in the preparation of basic data to be used in the Study. The basic data means the data such as the location of agricultural areas and vegetation coverage as listed in the Plan of Operation. The Study Team explained that in the basic data preparation, existing data will be the main source of information and satellite images will be used mainly to supplement the



existing data and also for the area where no useful information other than topographic data is available.

MOWE explained that satellite image is an important source of information in the survey of large area and asked the Study Team to utilize satellite image analysis technique even for the area where data such as the location of irrigation areas are available.

The Study Team explained that while the team understands the usefulness of satellite image data for a survey covering large area, the data are part of the information sources required to make the basic data for the Study.

And with regard to the request from MOWE on more intimate satellite image analysis, the Study Team emphasized the necessity of technically confirming the validity of implementation of intimate satellite image analysis. Then both sides agreed that the details of the satellite image analysis for the basic data preparation would be discussed again by the end of September 2007 after existing data concerned are actually collected and the availability of the existing data becomes clear.

14. GIS database

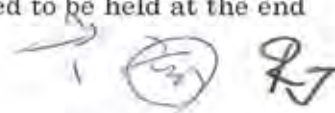
As for GIS database, MOWE asked the Study Team to consider the specifications of a GIS database being designed by MOWE so that the data to be made by the Study Team can be used by a future MOWE GIS without trouble. the Study Team agreed to pay attention to the data compatibility.

15. Office space for the Study Team

The Study Team explained to MOWE that the maximum capacity for the existing office space for the Study Team is three persons, therefore, in the near future the present office cannot accommodate all specialists to work at MOWE. MOWE agreed to prepare the suitable office space with an internet connection for the Study Team.

16. Regular presentation by study members

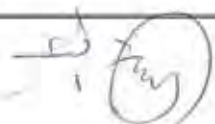
The Study Team proposed to regularly hold technical workshops to be presented by study members on the progress of the study, technical information, etc. during the course of the Study. Both sides agreed that the 1st presentation will be scheduled to be held at the end of October 2007.

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Appendix-1 List of Attendees for Meetings on Plan of Operation

THE STUDY ON MASTER PLAN ON RENEWABLE WATER RESOURCES DEVELOPMENT IN THE SOUTHWEST REGION IN THE KINGDOM OF SAUDI ARABIA

Name	Position
Ministry of Water and Electricity (MOWE)	
Dr. Ali Saad Al-Tokhais	Deputy Minister for Water Affairs
Mr. Abdulaziz Al-Kahlan	Chief of Hydrology Division
Mr. Fahad Ahmed Al-Beajan	Senior Geologist
Mr. Hatim Srin Ratah	Eng. Hydrologist
JICA Study Team	
Toru TAKAHASHI	Team Leader/Water Resource
Masayuki SHIRAISHI	Deputy Team Leader/Water Resource Development Management
Hidetoshi KANAMURA	Hydrologist
Shigeru ONO	Expert in GIS
JICA in Saudi Arabia Office	
Ryuichi TOMIZAWA	Resident Representative
Yosuke KUSUNOKI	Assistant Resident Representative

**MINUTES OF MEETING
ON
PROGRESS REPORT (1)
FOR
THE STUDY ON MASTER PLAN ON RENEWABLE WATER RESOURCES
DEVELOPMENT IN THE SOUTH WEST OF SAUDI ARABIA**

**AGREED UPON
BETWEEN**

**THE MINISTRY OF WATER AND ELECTRICITY
THE KINGDOM OF SAUDI ARABIA**

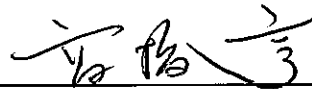
AND

JAPAN INTERNATIONAL COOPERATION AGENCY

February 27, 2008



**Dr. Ali Saad Al-Tokhais
Deputy Minister for Water Affairs
Ministry of Water and Electricity
(MOWE)**



**Mr. Toru Takahashi
Team Leader of the JICA Study Team
Japan International Cooperation Agency
(JICA)**

Witnessed by:



**Mr. Ryuichi Tomizawa
Resident Representative
JICA Saudi Arabia Office
Embassy of Japan**

The Japan International Cooperation Agency (hereinafter referred to as “JICA”) dispatched the JICA Study Team (hereinafter referred to as “the Study Team”) headed by Mr. Toru Takahashi, Team Leader to the Kingdom of Saudi Arabia (hereinafter referred to as “KSA” on July 1, 2007. The purpose of the visit was the implementation of the Study on Master Plan on Renewable Water Resource Development in the Southwest Region in the Kingdom of Saudi Arabia (hereinafter referred to as “the Study”) in cooperation with the Ministry of Water and Electricity (hereinafter referred to as “MOWE”).

Since July 1, 2007, and according to the Inception Report and Plan of Operation submitted to MOWE on July 7, 2007 and August 25, 2007 respectively, the Study Team has collected data and information, carried out field surveys and studied various issues related to the Study with the cooperation and assistance of MOWE.

The Progress Report (1) (Draft), which compiles various activities of the Study Team since the commencement of the Study, was submitted to MOWE on February 24, 2008, and in this regard a meeting was held between MOWE and the Study Team on the same day.

During the meeting the outline of the report was explained by the Study Team, questions were raised by both parties, and significant discussions were made between both parties. In conclusion, the Progress Report (1) (Draft) was accepted by MOWE with the following understandings, comments and suggestions:

(1) Boundary between JICA Study Area and GTZ Study Area

The JICA Study Team pointed out that study areas defined by GTZ for the “Detailed Water Resources Studies of Wajid and Overlying Aquifers Project” are partly overlapping with the study area defined by JICA.

MOWE replied that there is a considerable difference between both studies. The Study executed by JICA aims at the development of renewable water resources such as surface flow and shallow groundwater, whereas the study executed by GTZ aims at the development of nonrenewable water resources such as the Wajid aquifers located in the Arabian sedimentary shelf. MOWE suggested that the JICA and GTZ studies should be carried out with mutual exchange and sharing of information, coordinated by MOWE.

(2) Long term strategic plan for meeting municipal water demand

Regarding water demand prediction, the Study Team asked whether MOWE had already identified the long-term prediction result to the year of 2040 on domestic water.

MOWE replied that they have demand prediction results for 2005 to 2040 and this will be provided to the JICA Study Team.

(3) Runoff Data monitored by MOWE

The Study Team explained that sufficient runoff data was not obtained to date and explained its value for the hydrological analysis, requesting further collection of data.

MOWE answered that they have runoff data for the period during the 1960's to 1980's monitored by MOWE and agreed to offer this data to the JICA Study Team.

(4) Necessity for the supervision on Sub-contract works

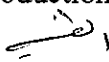
MOWE requested to the Study Team for the arrangements for the supervision of subcontract works, including installation works for the equipment of discharge and subsurface flow measurement, scheduled for late March 2008.

The Study Team replied that the request will be forwarded to JICA headquarters in Japan.

MOWE staff will be engaged in the supervision as counterparts.

(5) The points mutually agreed upon by both parties and as pointed out by MOWE shall be corrected for the final version of the Progress Report (1) , including spelling mistakes, incorrect proper nouns, grammatical errors etc.

(6) Further comments and questions from MOWE, if any, will be compiled and submitted to the Study Team no later than March 23, 2008 and the Study Team shall reflect these in their production of the final version of the Progress Report (1).

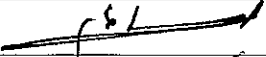
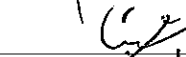
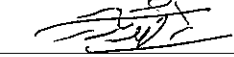
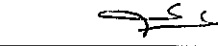
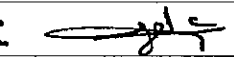
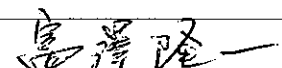
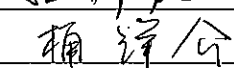
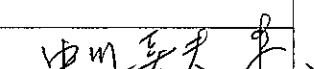
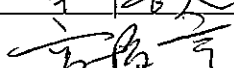
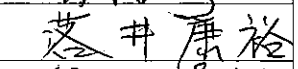
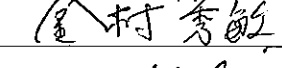
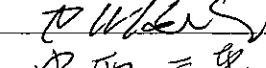
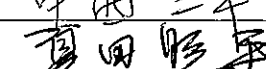
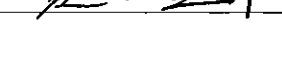
Appendix-1 List of Attendees for Meetings
THE STUDY ON MASTER PLAN ON RENEWABLE WATER RESOURCES DEVELOPMENT
IN THE SOUTHWEST REGION IN THE KINGDOM OF SAUDI ARABIA
Progress Report (1)

Name	Position
Ministry of Water and Electricity (MOWE)	
Dr. Ali Saad Al-Tokhais	Deputy Minister for Water Affairs
Mr. Ahmed bin Abdullah Al-Ghamdi	Director General for Water Resources Development
Mr. Abdulaziz Al-Kahlan	Director of Hydrology Division
Mr. Helal Ayedh Al-Harthi	Director of Water Research & Studies Division
Mr. Abdullaziz Al-Musoud	Director of Group II
Mr. Fahad Ahmed Al-Beajan	Senior Geologist
Mr. Hatim Srin H.Ratah	Senior Hydrologist
Mr. Ghanem Abdulaziz Al-Ghanem	Hydrologist
JICA Study Team	
Yoshio NAKAGAWA	Project Director
Toru TAKAHASHI	Team Leader
Yasuhiro OCHII	Deputy Team Leader
Hidetoshi KANAMURA	Hydrologist
Izumi KATO	Geology/Hydrogeology
Sampei NAKANISHI	Social/Organization/Institution
Shohei NATSUDA	Economic and Financial Analysis
JICA Saudi Arabia Office	
Ryuichi TOMIZAWA	Resident Representative
Yosuke KUSUNOKI	Assistant Resident Representative

**THE STUDY ON MASTE PLAN ON RENEWABLE RESOURCES DEVELOPMENT(REWARD) IN THE
SOUTHWEST REGION IN THE KINGDOM OF SAUDI ARABIA**

Progress Report (1)

24-Feb-08

No.	Classification	Name	Section & Position	Signature
1	Steering Committee	Dr. Ali Saad Al-Tokhais	Deputy Minister of Water Affairs, MOWE	
2		Ahmed bin Abdullah Al-Ghamdi	Director General for Water Resources Development	
3		Abdulaziz Al-Kahlan	Chief of Hydrology Division	
4		Helal Ayedh Al-Harthi	Chief of Water Research & Studies Division	
5		Fahad Ahmed Al-Bejan	Senior Geologist	
6		Metib Al-Khatany	Senior Geologist	
7		Abdulaziz bin Saleh Al-Hassan	Senior Hydrogeologist	
8		Ghanem Abdulaziz Al-Ghanem	Hydrogeologist	
9		Saleh Al Meeman	Engineer of Project Execution Department	
10		Hatim Ratah	Hydrologist	
		Abdulaziz Al-Musoud	Chief of Group II	
11	JICA Saudi Arabia Office	TOMIZAWA Ryuich	Resident Representative	
12		KUSUNOKI Yosuke	Assisitant Resident Representative	
13		Ihab M. AL-SHARKAWI	Senior Program Manager	
14	JICA Study Team	NAKAGAWA Yoshio	Project Director	
15		TAKAHASHI Toru	Team Leader / Water Resources	
16		OCHI Yasuhiro	Deputy Team Leader	
17		KANAMURA Hidetoshi	River/Hydrology	
18		KATO Izumi	Geology/Hydrogeology	
19		NAKANISHI Sanpei	Social/organization/institution	
20		NATSUDA Shohei	Economic and financial analysis	

**MINUTES OF MEETING
ON
REVISION OF THE STUDY SCHEDULE
FOR
THE STUDY ON MASTER PLAN ON RENEWABLE WATER
RESOURCES DEVELOPMENT IN THE SOUTH WEST OF SAUDI
ARABIA
AGREED UPON
BETWEEN
THE MINISTRY OF WATER AND ELECTRICITY
THE KINGDOM OF SAUDI ARABIA
(MOWE)
AND
JAPAN INTERNATIONAL COOPERATION AGENCY
(JICA)**

May 12, 2008

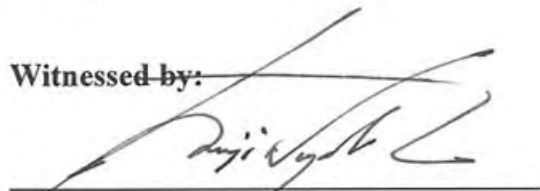


**Dr. Ali Saad Al-Tokhais
Deputy Minister for Water Affairs
Ministry of Water and Electricity
(MOWE)**



**Mr. Masatomo WATANABE
Team Leader of the JICA Study Team
Japan International Cooperation Agency
(JICA)**

Witnessed by:



**Mr. Kenji NAGATA
Leader of the Monitoring Mission
Japan International Cooperation Agency
(JICA)**

The Japan International Cooperation Agency (hereinafter referred to as "JICA") dispatched the JICA Study Team (hereinafter referred to as "the Study Team") headed by Mr. Masatomo Watanabe, Team Leader, to the Kingdom of Saudi Arabia (hereinafter referred to as "KSA") for the Study on Master Plan on Renewable Water Resource Development in the Southwest Region in the Kingdom of Saudi Arabia (hereinafter referred to as "the Study") on April 19, 2008.

JICA Project Monitoring Mission (hereinafter referred to as "the Mission") headed by Mr. Kenji Nagata arrived at Riyadh on May 10th, 2008.

The Study Team had a series of discussion with the Ministry of Water and Electricity (hereinafter referred to as "MOWE") and GTZ (Deutsche Gesellschaft für Technical Zusammenarbeit, hereinafter referred to as "GTZ") to clarify the targets and contents of the Wajid Aquifer Study Project being conducted by GTZ

For above background, the meeting focusing on the study schedule was held on May 12, 2008 in MOWE. Refer to Attachment-1 (Attendant List) and Attachment-2 (Meeting Material)

The Study Team and MOWE discussed and agreed upon as follows:

(1) Study Schedule

Operational Structure for the Study

The Study Team explained the replacement of the team members. MOWE accepted this replacement. Also MOWE announced the change of member of Steering Committee.

The Study Team proposed more frequent communication between the Study Team and MOWE. MOWE will facilitate more the communication.

Study Period and Phasing

The Study Team proposed the modified time schedule of the Study. Phase-I will be extended by three months till March 2009 and followed by Phase II from April 2009. The Study will be completed June 2010. The Study period will extend totally six months. The proposed modified schedule is accepted by MOWE.

Counterpart Training in Japan

The Study Team proposed tentative schedule and contents of the counterpart training in Japan, adding that expected maximum number of trainee is ten and the training will be implemented one time. MOWE accepted this proposal and will start the preparation for this training.

Cost sharing rule was confirmed as follows: Airfares are borne by the government of Kingdom of Saudi Arabia and remaining cost, such as accommodation fee, domestic transportation fee and so on, are borne by JICA.

Counterpart Meeting in Japan

The Study Team and JICA KSA Office proposed High Rank Counterpart Meeting in Japan for three persons in January or February 2009 to discuss about basic water strategy and selection of the priority region(s). MOWE accepted this proposal.

The same cost sharing rule as mentioned above was confirmed.

(2) Process for Selection of Priority Region(s) for Master Plan

The Study Team requested MOWE to hold a stakeholder meeting after formulation of basic policy & strategy would be prepared. MOWE proposed to hold three times of stakeholder meeting at Al-Baha, Jizan and Najran as this process is very important and conditions of each region are different. The proposed tentative schedule is as follows:

- ✓ First stakeholder meeting in Al-Baha: 20th October 2008
- ✓ Second stakeholder meeting in Najran: 24th November 2008
- ✓ Third stakeholder meeting in Jizan: Middle of February 2009

MOWE mentioned that basic strategy and water demand projection should be prepared carefully and should follow the Strategy of MOWE. It is agreed that the Study Team and MOWE will have meetings to confirm basic figures such as population growth ratio, unit water consumption per capita, and so on.

The Study Team mentioned that future water demand for agricultural use seems to be a rather political matter and it is very difficult to estimate. The Study Team and MOWE agreed to hold meetings with Ministry of Agriculture, related experts such as agricultural economists to discuss about future agriculture vision and agricultural water demand.

Regarding the selection of the Priority Region(s) for Master Plan, both sides agreed to continue the discussion in the course of the progress of the study.

(3) Application of GTZ Study results to the JICA Study

MOWE will provide necessary information and data resulted from GTZ Study, and will arrange meetings between GTZ Study Team and JICA Study Team in order to communicate each other on the interest matters of each team.

(4) Study Team Office in Phase-2

The Study Team mentioned that the main activities in Phase-2 period should be conducted at the regional office to maximize the study effort. MOWE will provide necessary rooms and working circumstances in the regional offices.

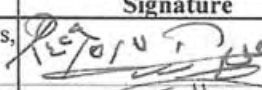
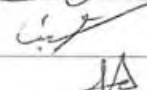
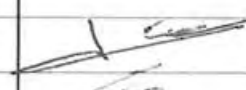
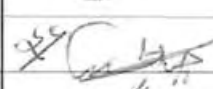
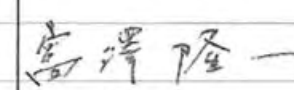
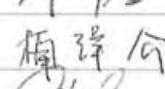
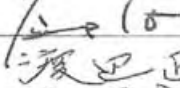
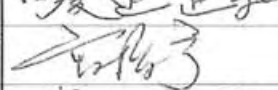
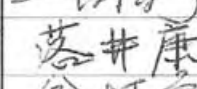
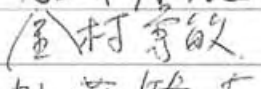
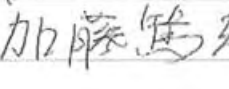
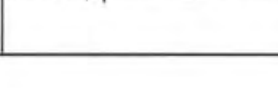
Attachment-1 List of Attendees for Meetings

Name	Position or Job Title
Ministry of Water and Electricity (MOWE)	
Dr. Ali Saad Al-Tokhais	Deputy Minister
Mr. Saad Ali Al Duair	Director General for Water Resources Development
Mr. Abdulaziz Al-Kahlan	Director of Hydrology Division
Mr. Helal Ayedh Al-Harhi	Director of Water Research & Studies Division
Mr. Metib Al Khatany	Senior Geologist
Mr. Abdullaziz bin Saleh Al Hassan	Senior Geologist
Mr. Saleh Al Meeman	Engineer of Project Execution Department
Mr. Ghanem Abdulaziz Al-Ghanem	Hydrologist
JICA Study Team	
Masatomo WATANABE	Team Leader
Toru TAKAHASHI	Deputy Team Leader
Yasuhiro OCHII	Deputy Team Leader
Hidetoshi KANAMURA	Hydrologist
Atsushi KATO	Computer Specialist
JICA Monitoring Mission	
Kenji NAGATA	Leader of the Monitoring Mission
Shinich MASUDA	Task Manager, JICA Headquarters
JICA Saudi Arabia Office	
Ryuichi TOMIZAWA	Resident Representative
Yosuke KUSUNOKI	Assistant Resident Representative
Ihab M.Al-Sharkawi	Senior Program Manager

**THE STUDY ON MASTER PLAN ON RENEWABLE RESOURCES DEVELOPMENT(REWARD) IN THE
SOUTHWEST REGION IN THE KINGDOM OF SAUDI ARABIA**

Meeting on Study Schedule

12-May-08

No.	Classification	Name	Section & Position	Signature
1	Steering Committee, MOWE	Dr. Ali Saad Al-Tokhais	Deputy Minister of Water Affairs, MOWE	
2	ditto	Said Ali Al Duair	Director General for Water Resources Development Department.	
3	ditto	Abdulaziz Al-Kahlan	Director of Hydrology Division	
4	ditto	Hela! Ayedh Al-Harhi	Director of Water Research & Studies Division	
5	ditto	Fahad Ahmed Al-Beajan	Senior Geologist	
6	ditto	Metib Al-Khatany	Senior Geologist	
7	ditto	Abdulaziz bin Saleh Al-Hassan	Senior Hydrogeologist	
8	ditto	Ghanem Abdulaziz Al-Ghanem	Hydrogeologist	
9	ditto	Saleh Al Meeman	Engineer of Project Execution Department	
10				
11				
12				
13				
14				
15				
16	JICA Saudi Arabia Office	TOMIZAWA Ryuich	Resident Representative	
17	ditto	KUSUNOKI Yosuke	Assistant Resident Representative	
18	ditto	Ihab M. AL-SHARKAWI	Senior Program Manager	
19	JICA Headquarters	NAGATA Kenji	Team Leader, Monitoring Mission	
20	ditto	MASUDA Shinichi	Task Manager, Monitoring Mission	
21	JICA Study Team	WATANABE Masatomo	Team Leader	
22	ditto	TAKAHASHI Toru	Deputy Team Leader / Water Resources	
23	ditto	OCHI Yasuhiro	Deputy Team Leader/ Water Resources Management	
24	ditto	KANAMURA Hidetoshi	Hydrology	
25	ditto	KATO Atsushi	Coordinator/ Computer Specialist	



JAPAN INTERNATIONAL
COOPERATION AGENCY
(JICA)



THE MINISTRY OF WATER
AND ELECTRICITY THE
KINGDOM OF SAUDI
ARABIA (MOWE)

**THE STUDY ON MASTER PLAN ON RENEWABLE WATER
RESOURCES DEVELOPMENT
IN THE SOUTHWEST REGION
IN
THE KINGDOM OF SAUDI ARABIA**

MEETING

on

1. Study Schedule
 - ◆ Operational Structure for the Study
 - ◆ Study Period and Phasing
 - ◆ Counterpart Training in Japan
 - ◆ Counterpart Meeting in Japan
2. Selection of Priority Area for Master Plan
3. Application of GTZ Study Result to JICA Study

MAY 12, 2008

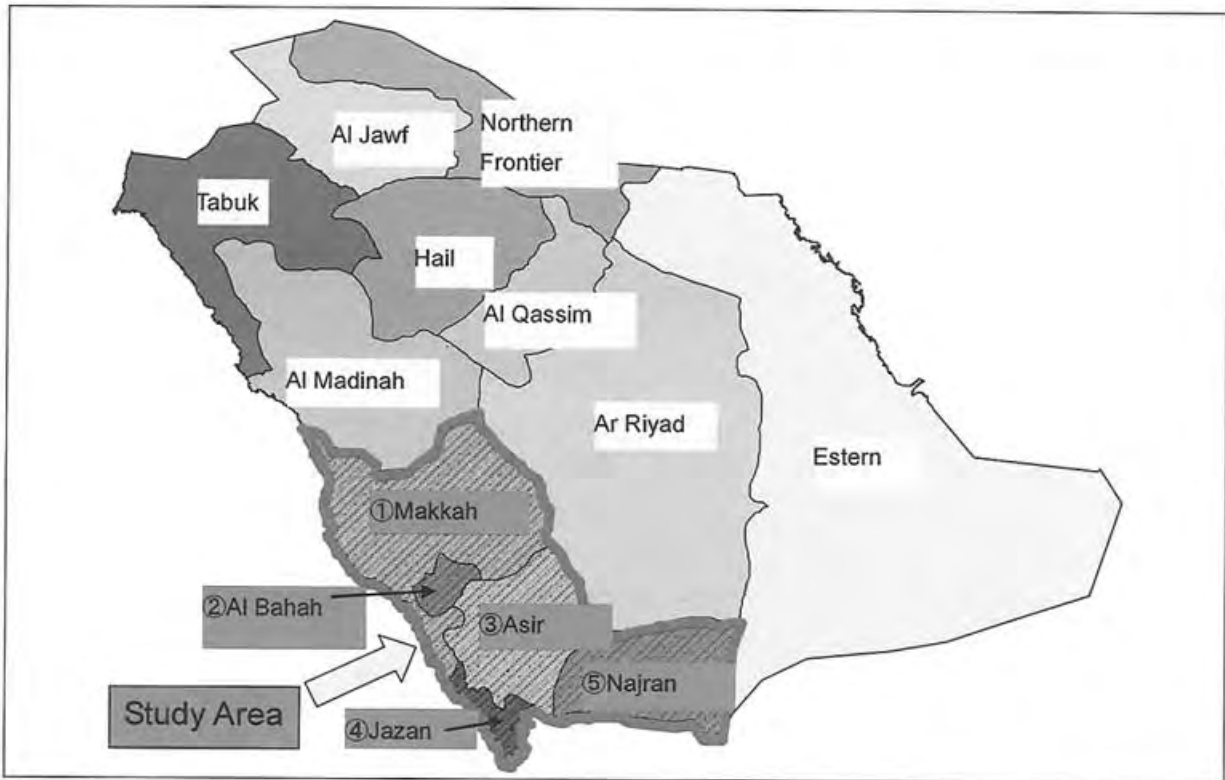


YACHIYO ENGINEERING CO., LTD.

SANYU CONSULTANTS INC.

<Study Area>

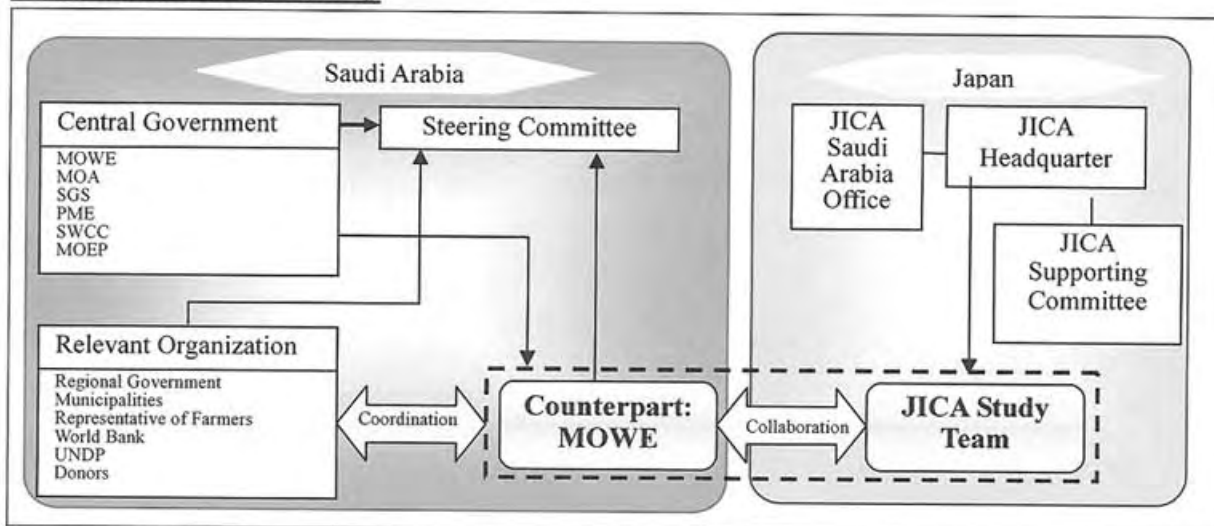
The study area covers the following five regions which located in the Southwest regions of KSA: 1)Makkah Al Mukarramah (Makkah), 2)Al Bahah, 3)Asir, 4)Jazan and 5)Najran



1 Study Schedule

(1) Operational Structure for the Study

Organization for the Study



Steering Committee Members

Position	Name	Position or Job Title
Chairman	Dr. Ali Saad Al-Tokhais	Deputy Minister of Water Affairs, MOWE
Member	Mr. Said Ali Al Duair	Director General for Water Resources Development Department, MOWE
Member	Mr. Abdulaziz Al-Kahlan	Director of Hydrology Division, MOWE
Member	Mr. Helal Ayedh Al-Harthi	Director of Water Research & Studies Division, MOWE
Member	Mr. Fahad Ahmed Al-Bejan	Senior Geologist, MOWE
Member	Mr. Metib Al-Khatany	Senior Geologist, MOWE
Member	Mr. Abdulaziz bin Saleh Al-Hassan	Senior Hydrogeologist, MOWE
Member	Mr. Ghanem Abdulaziz Al-Ghanem	Hydrologist, MOWE
Member	Mr. Saleh Al Meeman	Engineer of Project Execution Department, MOWE

Counterpart Members in the Regions

Position	Name	Position or Job Title	Region
Member	Mr. Habib Mohammed Khayat	Geologist	Makkah
Member	Mr. Hani Othman Kemrin	Geologist	Makkah
Member	Mr. Faris bin Mohammed Dakhil	Geologist	Najran
Member	Mr. Abdullah bin Rashid Debis	Geologist	Najran
Member	Mr. Ahmed bin Siraj	Geologist	Asir
Member	Mr. Abdullah bin Ali Al-Shihri	Geologist	Asir
Member	Mr. Ahmad Hassan Nejmi	Geologist	Jazan
Member	Mr. Ibrahim Souwaidi	Observer	Jazan
Member	Mr. Jabir Al-Fifi	Geologist	Al-Bahah
Member	Mr. Awadh Mahdi Al-Gharni	Geologist	Al-Bahah

Members of JICA Study Team

Name	Position in the Study Team or Job Title
Mr. WATANABE Masatomo	Team leader
Mr. TAKAHASHI Toru	Deputy Team Leader / Water Resources
Mr. OCHII Yasuhiro	Deputy Team Leader / Water Resources Development Management
Mr. KANAMURA Hidetoshi	River/Hydrology
Mr. KATO Izumi	Geology/Hydrogeology
Mr. NAKANO Toshinobu	Agriculture /Irrigation
Mr. FUJIYAMA Taketoshi	Water Supply (Desalination, Waste Water Reuse)
Mr. SHINGU Tamotsu	Facility Design / Cost Estimate
Mr. HARA Takashi	Environmental and Social Consideration
Mr. OURA Hisashi	Social / Organization /Institution
Mr. NATSUDA Shohei	Economic and Financial Analysis
Mr. KATO Atsushi	Coordinator (Computer specialist)

(2) Study Period and Phasing

Targets of the Study Phase

- Phase 1:** Basic Study and Formulation of Basic Policy & Strategy on Integrated Water Resources Development & Management for the whole study area (Selection of targeted Regions for the formulation of Master Plan)
- Phase 2:** Formulation of a Master Plan for Integrated Water Resources Development & Management for the Selected Regions

Modified Time Schedule of Each Phase

Items	Original Schedule	Modified Schedule
Period of Phase	Total: 30 months	<i>Total: 36 months</i>
Phase-1	07/2007 – 12/2008 (18 months)	<i>07/2007 – 3/2009 (21 months)</i>
Phase-2	01/2009 – 12/2009 (12 months)	<i>04/2009 – 06/2010 (15 months)</i>
Main Events		
Phase-1		
✓ MTG on Inception Report	09/07/2007	On Schedule
✓ MTG on Plan of Operation	28/08/2007	On Schedule
✓ Sub-Contract Tendering	10/2007	<i>27/02/2008</i>
✓ 1st Stakeholder Meeting	17/02/2008 (at Abha)	On Schedule
✓ MTG on Progress Report-1	24/02/2008 (S/C/MTG.)	On Schedule
✓ Formulation on Basic Policy/ Strategy on Water Resources Development/Utilization/Management	08/2008	<i>11/2008</i>
✓ 2 nd Stakeholder Meeting	09/2008	<i>11/2008</i>
✓ Selection of Priority Area for Master Plan	08/2008	<i>01/2009</i>
✓ MTG on Interim Report	01/2009 (S/C/MTG.)	<i>02/2009</i>
✓ Technology Transfer (1st Workshop)	10/2008	<i>02/2009</i>
Phase-2		
✓ MTG on Progress Report-2	02/2009 (S/C/MTG.)	<i>07/2009</i>
✓ 3 rd Stakeholder Meeting	08/2009	<i>02/2010</i>
✓ Technology Transfer (Seminar)	08/2009	<i>02/2010</i>
✓ MTG on Draft Final Report	10/2009 (S/C/ MTG.)	<i>03/2010</i>
✓ 2 nd Workshop	10/2009	<i>03/2010</i>
✓ Submission of Final Report	12/2009	<i>06/2010</i>

Note: MTG: Meeting, S/C/MTG: Steering Committee Meeting

(3) Counterpart Training in Japan

As a part of technology transfer, counterpart training in Japan is scheduled during a study period of Phase I. The programs related to water resources management, hydrology, hydrogeology and geology as well as operation and maintenance on dams are prepared. The following table shows the training program in Japan.

Tentative Schedule for Counterpart Training in Japan

No.	No.	Day	Schedule/Program	Lecture in	Stay at
1	July 08	Tue	Depart from Riyadh		On board
2	09	Wed	Arrive at Haneda		Tokyo
3	10	Thu	Program Orientation	JICA,TIC	Tokyo
4	11	Fri	Water Resources Development in Japan(1)	YEC	Tokyo
5	12	Sat	Holiday		Tokyo
6	13	Sun	Holiday		Tokyo
7	14	Mon	Water Resources Development in Japan(2)	YEC	Tokyo
8	15	Tue	Water Resources Management in Japan	YEC	Tokyo
9	16	Wed	GIS Utilization for Water Resources Development	YEC	Tokyo
10	17	Thu	Study Tour for Upper Tone River Basin	JWA	Out of Tokyo
11	18	Fri	Study Tour for Upper Tone River Basin	JWA	Tokyo
12	19	Sat	Holiday		Tokyo
13	20	Sun	Holiday		Tokyo
14	21	Mon	Surface Water Analysis	YEC	Tokyo
15	22	Tue	Groundwater Analysis	YEC	Tokyo
16	23	Wed	Study Tour (Tokyo→Osaka)	MLIT	Osaka
17	24	Thu	Study Tour (Osaka→Nara)	MLIT	Nara
18	25	Fri	Study Tour (Nara→Kyoto)	MLIT	Kyoto
19	26	Sat	(Kyoto→Tokyo) Holiday		Tokyo
20	27	Sun	Holiday		Tokyo
21	28	Mon	Making Reports of C/P Training	YEC	Tokyo
22	29	Tue	Report Presentation to JICA	JICA	Tokyo
23	30	Wed	Depart from Haneda		On board
24	31	Thu	Arrive in Riyadh		

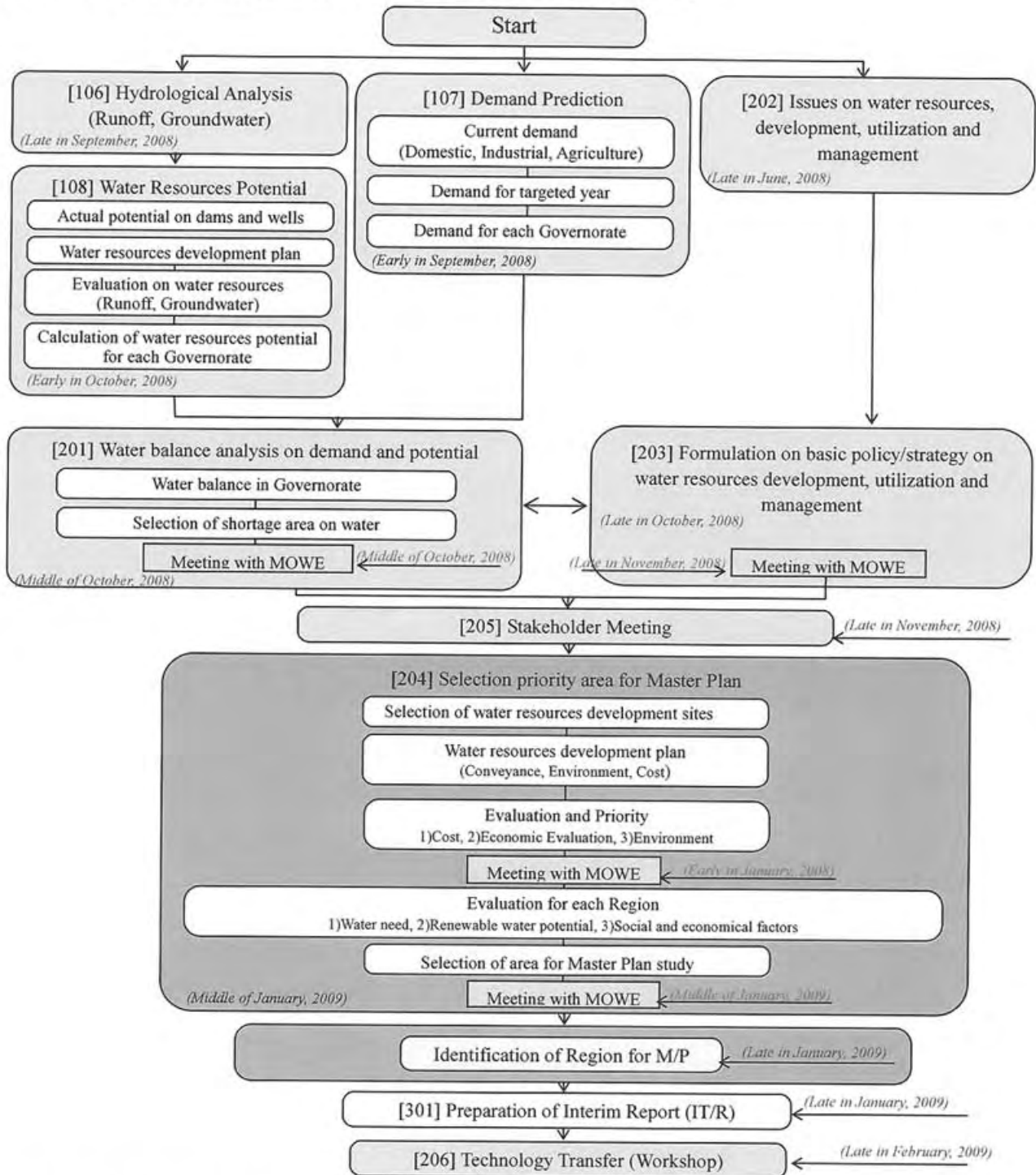
JICA: Japan International Cooperation Agency, TIC: Tokyo International Center, YEC: Yachiyo Engineering Co. Ltd.
JWA: Japan Water Agency, MLIT: Ministry of Land Infrastructure & Transportation

(4) Meeting in Japan with High-Rank Counterpart

During Phase I period, meeting in Japan with the high-rank counterpart of MOWE is to be held. Details on schedule and agenda are defined by the meeting with MOWE and the Study Team.

3 Selection of Priority Area for Master Plan

Flowchart for the Selection of Priority Area of the Master Plan



Criteria for Selection of Priority Regions for Master Plan Study (Preliminary)

Items to be Evaluated	Criteria for Evaluation
◆ Water Demand	✓ Current and future demand by region for domestic and agricultural use
◆ Renewable Water Potential	✓ Surface Water and Groundwater by region and by source
◆ Balance and Countermeasure Plans	✓ Balance between demand and potential by region
	✓ Availability of future development plan by region

4 Application of GTZ Study Results to JICA Study

JICA Study Team and GTZ Study Team had a meeting to clarify each study scope on May 3rd, 2008 at GTZ Study Team Office, from 9:40 to 11:00. The attendants are as follows:

<GTZ Study Team>

Prof. Dr. Randolph Rausch (Technical Director - GTZ)
Mr. Johannes Doehler (Director - Dornier Consultant)

<MOWE>

Mr. Fahad Ahmed Al-Beajan (Senior Geologist)
Mr. Barri Emad Abualsurour H. (Hydrologist)

<JICA Study Team>

Mr. M. Watanabe (Team Leader)
Mr. T. Takahashi (Deputy Team leader)
Mr. Y. Ochii (Deputy Team Leader)

After exchanging the information of each study, GTZ Study Team, MOWE and JICA Study Team agreed as follows:

- (1) MOWE will supply necessary information and data resulted from GTZ study to JICA Study Team.
- (2) GTZ Study Team and JICA Study Team will exchange and own jointly the information of each study results on the interest matters of each team.
- (3) JICA Study Team will invite GTZ Study Team to the next Stakeholder Meeting.

Record of Meeting

Firstly, JICA Study Team presented outline (scope, target area, schedule) of “The Study on Renewable Water Resources Development in the Southwest Region in the Kingdom of Saudi Arabia”. Then, GTZ Study Team explained outline of “Detailed Water Resources Studies of Wajid and Overlying Aquifers”.

(1) Scope and Output of the Wajid Project / Water Management Plan

- ✓ The Wajid Project proposes Water Management Plan of groundwater based on the scientific data. In order to study the project area, the study team carries out field survey, drilling and in-situ test, developing hydrological model and groundwater model, preparing scenarios to simulate, and evaluates these result
- ✓ The Wajid Project does not mainly intend to provide political recommendations such as World Bank does. The Wajid Project aims to study and evaluate scientific facts and present output based on these activities. The project output will be used for the KSA government to decide future plan of water use.
- ✓ Facility plan, such as dams for water resources development or pipelines for conveying water, is not included in the Wajid Project.

(2) Study and Survey Area of the Wajid Project

The study area comprises the entire surface water catchment of the recharge area of the Wajid aquifer, the outcrop of the Wajid sandstone and the subsurface extension of the Wajid aquifer.

Work Schedule of GTZ Study for Wajid Aquifer

Phase	Phase-1												Phase-2																																			
	2006												2007												2008												2009											
	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A											
Administration and Logistics																																																
◆ Maintain of Office in Riyadh	xx	x																																														
◆ Mobilization in the Study Area	xx	xx																																														
◆ Tendering of External Services	xx	xx																																														
◆ Recruiting of Local Staff	xx	x																																														
◆ Planning and Cost Survey	xx	xx																																														
◆ Setup of It-Network & GIS System	x																																															
◆ Tendering & Procurement of Field Equipment	xx	xx																																														
◆ Design & Implementation of Project Databank	xx	xx	x																																													
◆ Data Acquisition, Evaluation & Input, Pre-Processing of Existing Information	xx	xx	xx	xx	xx	xx	xx																																									
Studies and Report																																																
◆ Water Point Inventory			xx	xx	xx	xx	xx	xx	xx	xx	xx	xx																																				
◆ Hydrology: Groundwater Recharge and Assessment of Surface Water Resources			xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx																											
◆ Domestic & Industrial Water Demand and Waste Water Re-Use						xx	xx	xx					xx	xx	xx	xx	xx																															
◆ Agricultural Water Demand	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx																												
◆ Geology and Geological Model		x	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	x												
◆ Hydrology			xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx													
◆ Water Quality (Hydrochemistry)			xx	xx	xx	xx	xx	xx	xx	xx		xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx													
◆ Isotope Hydrology						xx	xx	xx			xx	xx	xx	xx	xx	xx	xx	xx											xx	xx																		
◆ Groundwater Modeling			xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx													
◆ Drilling Investigations						xx	xx	xx			x	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx													
◆ Geophysical Borehole Logging							xx	xx			xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx													
◆ Geo-hydraulic Testing							xx	xx			xx	xx	xx	xx	xx	xx	xx	xx	xx	xx																												
◆ Surface Geophysics					xx	xx				x	x		xx	xx	xx	xx	xx																															
◆ Review of Monitoring Network		xx	xx	xx	xx	xx	xx	xx	xx	xx																																						
◆ Rehabilitation and Operation of Monitoring network											xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx											
◆ Water Management Plan																												xx	xx	xx	xx	xx	xx	xx														
◆ Data and Knowledge Management	x	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx											
◆ Review of Draft Final Report and Preparation of Final Report																																			xx	xx	xx											
Activities in the Field																																																
◆ Survey for Agricultural Demand		xx	xx					xx	xx																																							
◆ Survey for Domestic and Industrial Demand, Waste Water Reuse							xx	x																																								
◆ Hydrological Survey					xx	xx																																										
◆ Geological Survey			xx	xx	xx	xx	xx	xx	xx																																							
◆ Geophysical Survey					xx	x				xx	x																																					
◆ Water Well Survey		xx	xx	xx	xx	xx	xx	xx	xx	xx	xx																																					
◆ Water Well Drilling and Testing											x	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx												
◆ Geophysical Borehole Logging in Existing Wells											xx	xx	xx	xx	xx																																	
◆ Pumping Test in Existing Wells											xx	xx	xx	xx	xx	xx																																

**MINUTES OF MEETING
ON
STUDY PROGRESS AS OF NOVEMBER 2008**

**For
THE STUDY ON
MASTER PLAN ON RENEWABLE WATER RESOURCES DEVELOPMENT
IN THE SOUTH WEST REGION IN THE KINGDOM OF SAUDI ARABIA**

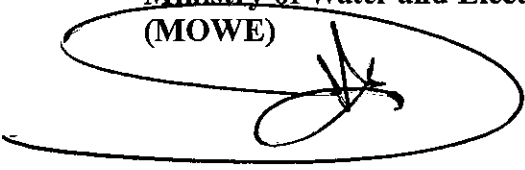
**Agreed Upon
Between**

**THE MINISTRY OF WATER AND ELECTRICITY
THE KINGDOM OF SAUDI ARABIA
(MOWE)**

**And
JAPAN INTERNATIONAL COOPERATION AGENCY
(JICA)**

November 23, 2008

Mr. Said Ali Al Duair
Director General for Water
Resources Development
Ministry of Water and Electricity
(MOWE)




Mr. Masatomo Watanabe
Team Leader of the JICA Study
Team
Japan International Cooperation
Agency (JICA)

A meeting was held between the Ministry of Water and Electricity ("MOWE") and the team for "The Study on Master Plan on Renewable Water Resources Development in the Southwest Region in the Kingdom of Saudi Arabia (the Study and the Study Team)" on 23 November 2008.

The Study Team explained the progress of the Study so far including 1) the analysis of the future water balance between demand and supply by each Governorate in the Study Area, 2) analysis of the future agricultural water demand, and 3) other topics. Also the MOWE and the Study Team discussed the programs in February 2009 when many important events are scheduled.

Finally the mutual discussion concluded as follows:

(1) Basic Policy and Strategy

MOWE and the Study Team confirmed that the policy and strategy for water resources development and management in the target areas of the Study should coincide with the policy and strategy mentioned in the 8th National Development Plan and the National Water Strategy. MOWE commented that the Study shall discuss and recommend new ideas reflecting the current conditions and situations in the target areas, in addition to the framework of such national level.

(2) Future Agricultural Area

The Study Team introduced such new topics obtained from the Ministry of Agriculture as the Ministry of Agriculture will announce a new policy of wheat reduction in the national level. It is MOWE's understanding that this new policy being based on the Decree No.3035 restricts neither rain-fed production nor irrigated production from shallow well (or renewable groundwater), and that this policy apply to the wheat production using fossil water, and does not apply to the agriculture in the area of the Study because the fossil water irrigation is not prevailing in the area. The both parties agreed that this new policy should be clarified more based on the translation of the official text of new policy.

(3) The First Work Shop

MOWE proposed that the First Work Shop shall be held in Riyadh in stead of Jizan proposed by the Study Team due to convenience of the participants. The JICA Study Team accepted MOWE's proposal, and shall examine again the time schedule and programs for the First Work Shop.

(4) Interim Report

MOWE and the Study Team confirmed that the Steering Committee Meeting on Interim Report will be held in 23 February 2008 with the JICA official mission dispatched from the JICA Headquarters. The Study Team shall submit the summary report on 15 February 2008 and the Interim Report on 18 February 2008 to MOWE.

(5) Data on Sewage Water Reuse

MOWE recommended that the data extracted from “Draft Report on Reuse of Sewage Water” prepared by the Ital-consult shall be confirmed and checked by the Regional General Directorate.

(6) Future Water Supply Plans

MOWE commented that the renewable water development by dams and wells is priority option, and desalination water system is secondary option to examine and to program the future water balance of demand and supply.

(7) General Comment on Discussion material

MOWE requested that the discussion material for meeting shall be prepared with more larger Font Text.

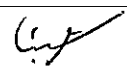
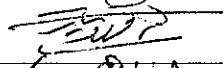
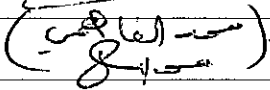
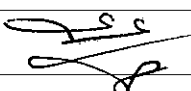
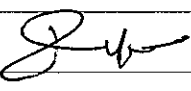
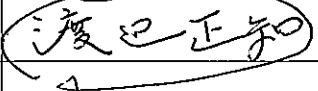
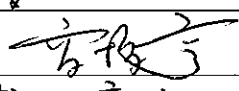
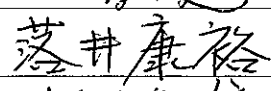
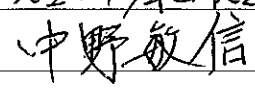
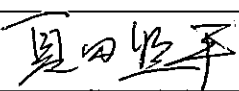
**THE STUDY ON MASTER PLAN ON RENEWABLE WATER RESOURCES DEVELOPMENT
IN THE SOUTHWEST REGION IN THE KINGDOM OF SAUDI ARABIA**

List of Attendants at the Meeting on 23 November 2008, Riyadh

Name	Position
Ministry of Water and Electricity (MOWE)	
Mr. Said Ali Al Duair	Director General for Water Resources Development
Mr. Abdulaziz Al-Kahlan	Director of Hydrology Division
Mr. Helal Ayedh Al-Harthi	Director of Water Research & Studies Division
Mr. Fahad Ahmed Al-Bejan	Senior Geologist
Mr. Ghanem Abdulaziz Al-Ghanem	Hydrologist
Mr. Saleh Al Meeman	Engineer of Project Execution Department, MOWE
Mr. Mohammed Fahmi	Geologist
JICA Study Team	
Masatomo WATANABE	Team Leader
Toru TAKAHASHI	Deputy Team Leader
Yasuhiro OCHII	Deputy Team Leader
Toshinobu NAKANO	Agriculture/Irrigation
Taketoshi FUJIYAMA	Water Supply (Desalination, Reclaimed Waster Water)
Hisashi OURA	Social/Organization/Institution
Shohei NATSUDA	Economic and Financial Analysis
JICA Saudi Arabia Office	
Ihab M. Al-Sharkawi	Senior Program Manager

**THE STUDY ON MASTER PLAN ON RENEWABLE RESOURCES DEVELOPMENT(REWARD) IN THE
SOUTHWEST REGION IN THE KINGDOM OF SAUDI ARABIA**

**Meeting on Study Findings on Water Balance
and Formulation of Basic Policy/Strategy**

No.	Classification	Name	Section & Position	Signature
1	Steering Committee, MOWE	Dr. Ali Saad Al-Tokhais	Deputy Minister of Water Affairs, MOWE	
2	ditto	Said Ali Al Duair	Director General for Water Resources Development Department, MOWE	
3	ditto	Abdulaziz Al-Kahlan	Director of Hydrology Division	
4	ditto	Helal Ayedh Al-Harthi	Director of Water Research & Studies Division	
5	ditto	Fahad Ahmed Al-Beajan	Senior Geologist	
6	ditto	Metib Al-Khatany	Senior Geologist	
7	ditto	Abdulaziz bin Saleh Al-Hassan	Senior Hydrogeologist	
8	ditto	Ghanem Abdulaziz Al-Ghanem	Hydrogeologist	
9	ditto	Saleh Al Meeman	Engineer of Project Execution Department	
10	?	Mohammed Fahmi		
11				
12				
13				
14				
15	JICA Saudi Arabia Office	Ihab M. AL-SHARKAWI	Senior Program Manager	
16	JICA Study Team	WATANABE Masatomo	Team Leader	
17	ditto	TAKAHASHI Toru	Deputy Team Leader / Water Resources	
18	ditto	OCHI Yasuhiro	Deputy Team Leader/ Water Resources Development Management	
19	ditto	NAKANO Toshinobu	Agriculture/Irrigation	
20	ditto	FUJIYAMA Taketoshi	Water Supply (Desalinated Sea Water, Waste Water Reuse)	
21	ditto	OURA Hisashi	Social/Organization/Institution	
22	ditto	NATSUDA Shohei	Economic and Financial Analysis	

**MINUTES OF MEETINGS ON
THE 6TH STEERING COMMITTEE MEETING**

**FOR THE STUDY ON
MASTER PLAN ON RENEWABLE WATER RESOURCES DEVELOPMENT
IN THE SOUTH WEST REGION IN THE KINGDOM OF SAUDI ARABIA**

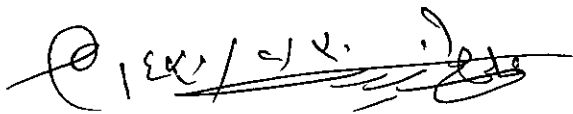
**AGREED UPON
BETWEEN**

**THE MINISTRY OF WATER AND ELECTRICITY (MOWE)
THE KINGDOM OF SAUDI ARABIA**

**AND
THE STUDY TEAM**

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

RIYADH, FEBRUARY 25TH, 2009

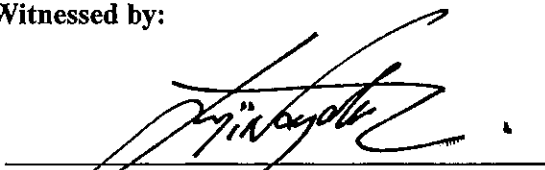


**Dr. Ali Saad Al Tokhais
Deputy Minister for Water
Affairs
Ministry of Water and Electricity
(MOWE)**



**Mr. Masatomo Watanabe
Team Leader of the Study Team
Japan International Cooperation
Agency (JICA)**

Witnessed by:



**Mr. Kenji Nagata
Leader of Monitoring Mission
Japan International Cooperation
Agency (JICA)**

The Minutes of Meetings is made and entered between the Ministry of Water and Electricity (MOWE) and the Study Team for "The Study on Master Plan on Renewable Water Resources Development in the Southwest Region in the Kingdom of Saudi Arabia" (the Study Team) on the 25th day of February, 2009.

The meetings were held on the 23rd day and 24th day of February, 2009. The Study Team explained the progress of the Study and the strategy for elaboration of the Interim Report. Through the series of discussions between MOWE and the Study Team (both parties), the following items were identified and mutually agreed.

1. Water Resources Potential

(1) Renewable Water

The Study Team explained the water resources potential calculated with a SWAT (Soil and Water Assessment Tool) model which is internationally being utilized. The Study Team mentioned the model is still necessary to be verified with the actual flow measurement results. MOWE understood the necessity of the verification.

(2) Reclaimed Wastewater

The Study Team explained that the potential amount of the future reclaimed wastewater was set based on the result of the study, titled "Investigation and Engineering Design for Treated Wastewater Reuse". Since this study is being revised, MOWE recommended the Study Team to confirm the figures. The Study Team understood the MOWE's advice.

2. Water Demand Projection

(1) Population Projection

Regarding the population prediction, the Study Team introduced two (2) cases of the scenarios such as Case 1: Trend Scenario (Trend from 1994 to 2004) and Case 2: Saudization Scenario: (Projected in 8th National 5-years Development Plan). MOWE pointed out there are many seasonal visitors, tourists and pilgrims to the regions. Whereas, both parties agreed the Study Team would employ the Case 2 and the seasonal fluctuation of the population would be taken into account for the future water demand projection.

(2) Municipal Water

The following data shall be confirmed by MOWE headquarters and the regional branch offices.

i) Unit Consumption Rate

Although the consumption rate of municipal water use is proposed in the 8th - 5 years National Development Plan, the recent Kingdom's governmental policy is to

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diminish the unit water consumption through individual water saving. MOWE will provide the recent unit consumption rate data, determined by the Kingdom's government, to the Study Team.

ii) Water Supply Coverage

MOWE proposed that the present water supply coverage shall be checked and confirmed by the MOWE regional branch offices. The Study Team agreed on this.

It is the Kingdom's policy that the water supply coverage should reach at 100% of all the area before the year of 2015 with referring to the Millennium Development Goals (MDGs). Yet, both parties shared the same opinion that it is difficult to reach 100% taking into consideration the natural conditions such as topographical characteristics, etc. The Study Team requested MOWE to set a policy for the Water Supply Coverage. MOWE agreed to establish the policy through cooperation with the regional branch offices. The perspective of the future water supply coverage will be discussed and decided by both parties.

iii) Water Loss

The water loss ratio in relatively new networks may amount between 15% and 25%. On the other hand, though the water loss ratio in old networks may reach at 40%, these networks have gradually been replaced into new networks. Hence, MOWE understood the water loss ratio, suggested by the Study Team, is appropriate. However, the water loss rate shall be checked and confirmed by the MOWE headquarters and the regional branch offices.

(2) Industrial Water

The Study Team explained that the industrial water use is estimated based on the number of factories in industrial zones and industrial water consumption rate by industry prepared by SOIETZ (Saudi Organization for Industrial Estates and Technology Zone). MOWE suggested the Study Team to check the appropriateness of the data with the Ministry of Commerce and Industry. The Study Team understood MOWE's suggestion and the unit consumption rate for the industrial water will be carefully examined.

(3) Agricultural Water

The Study Team proposed three (3) scenarios for the future planted area based on Scenario 1: the modified MOA (the Ministry of Agriculture) plan, Scenario 2: the trend scenario and Scenario 3: 2007 year level. MOWE expressed appropriateness of the scenarios. MOWE requested the Study Team to recommend clearly the amount available for renewable water for agricultural use in the view of sustainable development. The Study Team agreed on this.

3. Policy and Strategy for Comprehensive Water Resources Development and Management

The Study Team will present the policy and strategy for comprehensive water resources development and management for the five (5) Regions in the Interim Report. The Study Team prepared and explained an example of the report compilation style with the case of Jazan Region. MOWE understood the Study Team's proposing style which included basic strategy, policy and action plan.

4. Selection of the Region for the Master Plan

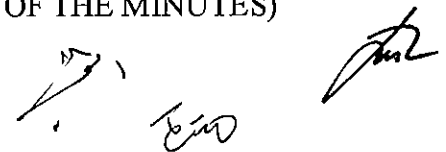
The Study Team explained that Jazan Region, Asir Region and Al Baha Region have been faced with critical situation in water demand and supply due to scarcity of water resources. MOWE expressed that Jazan Region, Asir Region and Al Baha have similar regional characteristics. Additionally, GTZ (Deutsche Gesellschaft für Technische Zusammenarbeit) has been implementing water resources studies in Najran Region in which water resources have partially been secured in comparison with the other Regions. Makka Region is an extensively wide area and has variety of water resources characteristics. For elaboration of the Master Plan, further detailed studies on geology and hydrogeology for renewable water are required to assess and evaluate the available water resources in Makkah Region.

MOWE expected the Study Team to formulate the Master Plan in Jazan Region, Asir Region and Al Baha Region in consideration of the current critical situation of the water resources. The Study Team will examine and consider the MOWE's request, and convey it to the JICA Headquarters.

5. Rescheduling and Submission of Interim Report

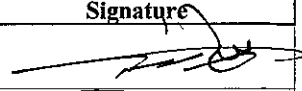
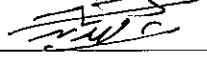
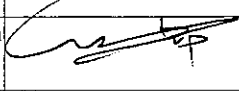
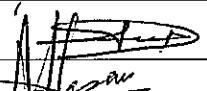
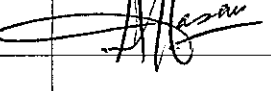
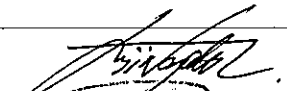
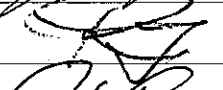
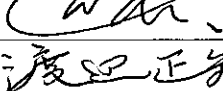
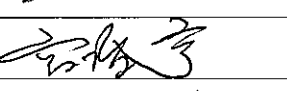
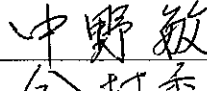
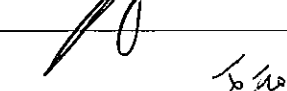
The Study Team explained the Interim Report would be submitted on June, 2009. MOWE understood it. The Study schedule to be re-arranged will be presented to MOWE after the concurrence by JICA Headquarters.

(END OF THE MINUTES)



**THE STUDY ON MASTER PLAN ON RENEWABLE RESOURCES DEVELOPMENT(REWARD) IN THE
SOUTHWEST REGION IN THE KINGDOM OF SAUDI ARABIA**

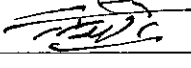
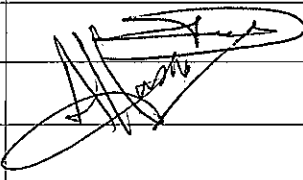
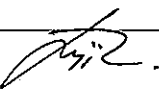
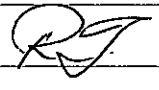
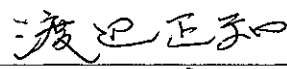
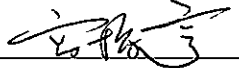
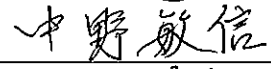
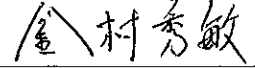
Steering Committee Meeting

No.	Classification	Name	Section & Position	Signature
1	Steering Committee, MOWE	Dr. Ali Saad Al-Tokhais	Deputy Minister of Water Affairs, MOWE	
2	ditto	Said Ali Al Duair	Director General for Water Resources Development Department, MOWE	
3	ditto	Abdulaziz Al-Kahlan	Director of Hydrology Division	
4	ditto	Helal Ayedh Al-Harhi	Director of Water Research & Studies Division	
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6	ditto	Metib Al-Khatany	Senior Geologist	
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8	ditto	Ghanem Abdulaziz Al-Ghanem	Hydrogeologist	
9	ditto	Saleh Al Meeman	Engineer of Project Execution Department	
10		Hatim Sarin Ratah	Senior Hydrologist	
11	-	Dr. Ayaz Hasan	Water Consultant	
12				
13				
14				
15	JICA Headquarters	NAGATA Kenji	Leader of Monitoring Mission	
16	JICA Saudi Arabia Office	TOMIZAWA Ryuich	Residence Representative	
17	JICA Saudi Arabia Office	Ihab Al-Sharkawi	S. Program & Executive Manager	
18	JICA Study Team	WATANABE Masatomo	Team Leader	
19	ditto	TAKAHASHI Toru	Deputy Team Leader / Water Resources	
20	ditto	NAKANO Toshinobu	Agriculture/Irrigation	
21	ditto	KANAMURA Hidetoshi	Hydrogeologist	
22	ditto	HARA Takashi	Environment Specialist	

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**THE STUDY ON MASTER PLAN ON RENEWABLE RESOURCES DEVELOPMENT(REWARD) IN THE
SOUTHWEST REGION IN THE KINGDOM OF SAUDI ARABIA**

Steering Committee Meeting

No.	Classification	Name	Section & Position	Signature
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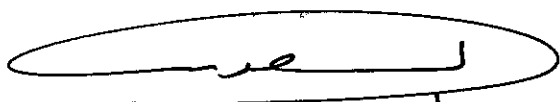
**MINUTES OF MEETING ON
THE STEERING COMMITTEE MEETING
(THE 7TH STEERING COMMITTEE MEETING)**

**FOR THE STUDY ON
MASTER PLAN ON RENEWABLE WATER RESOURCES DEVELOPMENT
IN THE SOUTHWEST REGION IN THE KINGDOM OF SAUDI ARABIA**

**AGREED UPON
BETWEEN**

**THE MINISTRY OF WATER AND ELECTRICITY (MOWE)
THE KINGDOM OF SAUDI ARABIA
AND
THE STUDY TEAM
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)**

RIYADH, JUNE 17TH, 2009

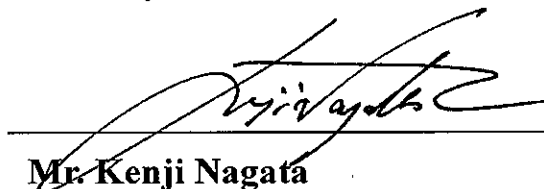


**Dr. Mohammed I. Al Saud
Deputy Minister for Water
Affairs
Ministry of Water and Electricity
(MOWE)**



**Mr. Masatomo Watanabe
Team Leader of the Study Team
Japan International Cooperation
Agency (JICA)**

Witnessed by:



**Mr. Kenji Nagata
Leader of Monitoring Mission
Japan International Cooperation
Agency (JICA)**

This Minutes of Meeting was prepared between the Ministry of Water and Electricity (MOWE) and the Study Team for "The Study on Master Plan on Renewable Water Resources Development in the Southwest Region in the Kingdom of Saudi Arabia" (the Study Team) on the 17th day of June, 2009.

The Steering Committee Meeting was held on the 16th day of June, 2009. The Study Team explained the progress of the Study and the Interim Report. Through the discussion between MOWE and the Study Team (both parties), the following items were identified and mutually agreed.

1. Interim Report

Following three items from the Interim Report are explained by the Study Team.

- Hydrological Water Balance Analysis
- Water Demand on Municipal Water
- Basic Policy, Strategy and Action Plans for Integrated Water Resources Development and Management

1) Hydrological Water Balance Analysis

Hydrological water balance based on the SWAT model analysis was reported, and was understood and agreed upon by the MOWE. The water balance in the region was agreed upon and the Study Team explained to further study the water balance by basin.

2) Water Demand on Municipal Water

Regarding water demand projection for municipal water, growth ratio and table of population was given by Ministry of Economy and Planning and unit consumption ratio was also given by MOWE. Based on the given data, the Study Team proposed demand projection and the MOWE agreed the Study Team's proposal.

3) Basic Policy, Strategy and Action Plans

Basic Policy, Strategy and Action Plans were explained and agreed upon by the MOWE. Water Resources Allocation Plan for Municipal Water Demand should be further reviewed based on the discussion.

In the discussion, it is pointed out that practical conditions should be well considered to prepare an action plan and a master plan such as water allocation, water resources development facilities and so on. It is explained that, in this stage, water allocation plan is just to show amount of supplying water and it will be examined further by taking into considerations such conditions as technical, economical etc. in the next stage.

2. Pricing for Water and Cost Recovery

MOWE's policy on pricing for water or cost recovery was asked. MOWE considers that it is an effective tool for demand management and conservation of water. MOWE also recognizes that tariff in KSA is too low to control the demand.

3. Role of MOWE in introducing Total Water Managing System (TWMS)

In allocation of water through TWMS, especially in case of drought period, functions to make arrangements among related ministries and organizations are necessary. The



Study Team asked if MOWE could take a role. MOWE has strong will to coordinate with others and expects the Study Team to prepare reasons to based upon.

4. On Cooperation between MOWE and the Study Team

The Study Team expressed appreciation for the cooperation by MOWE. And added that the Study Team needed further cooperation such as collecting information, data in Phase II.

5. Schedule

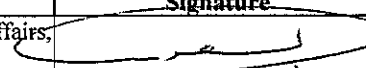
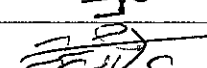
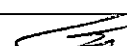
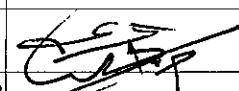
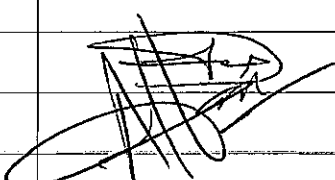
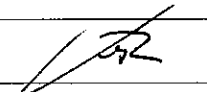
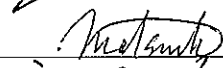
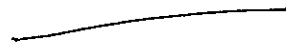
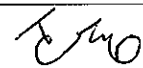
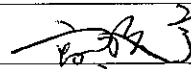
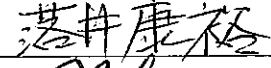
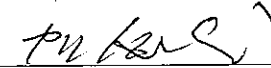
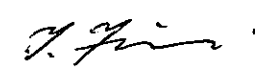
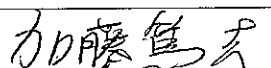
The Study Team will visit General Directorate of Water Office, Al Baha, Asir and Jazan, to make field study after October, 2009. Then Progress Report (2) for preparing draft of Master Plan will be submitted by the end of the field survey and draft final report will be submitted afterward.

(END OF THE MINUTES)



**THE STUDY ON MASTER PLAN ON RENEWABLE RESOURCES DEVELOPMENT(REWARD) IN THE
SOUTHWEST REGION IN THE KINGDOM OF SAUDI ARABIA**

Steering Committee Meeting (6)

No.	Classification	Name	Section & Position	Signature
1	Steering Committee, MOWE	Dr. Mohammed I Al Saud	Deputy Minister of Water Affairs, MOWE	
2	ditto	Said Ali Al Duair	Director General for Water Resources Development Department, MOWE	
3	ditto	Abdulaziz Al-Kahlan	Director of Hydrology Division	
4	ditto	Helal Ayedh Al-Harhi	Director of Water Research & Studies Division	
5	ditto	Fahad Ahmed Al-Bejan	Senior Geologist	
6	ditto	Metib Al-Khatany	Senior Geologist	
7	ditto	Abdulaziz bin Saleh Al-Hassan	Senior Hydrogeologist	
8	ditto	Ghanem Abdulaziz Al-Ghanem	Hydrogeologist	
9	ditto	Saleh Al Meeman	Engineer of Project Execution Department	
10	ditto	Hatim Sarin Ratah	Senior Hydrologist	
11	ditto	Dr. Ayaz Hasan	Consultant	
12				
13				
14	JICA Headquarters	NAGATA Kenji	Leader of Monitoring Mission	
15		MATSUMOTO Shigeyuki	Member of Monitoring Mission	
16	JICA Saudi Arabia Office	TOMIZAWA Ryuichi	Residence Representative	
17	JICA Saudi Arabia Office	Ihab M. AL-SHARKAWI	Senior Program & Executive Manager	
18	JICA Study Team	WATANABE Masatomo	Team Leader	
19	ditto	TAKAHASHI Toru	Deputy Team Leader / Water Resources	
20	ditto	OCHII Yasuhiro	Deputy Team Leader / Water Resources Development Management	
21	ditto	NAKANO Toshinobu	Agriculture/Irrigation	
22	ditto	KATO Izumi	Geology/Hydrogeology	
23	ditto	FUJIYAMA Taketoshi	Water Supply/Desalination & Waste Water Reuse	
24	ditto	KATO Atsushi	Computer/Coordinator	

JICA ESA
office

AKAO Takashi

Project Formulation
Advisor

4/12/09

**MINUTES OF MEETING
FOR THE 8th STEERING COMMITTEE
ON
STUDY PROGRESS AS OF NOVEMBER 2009
FOR
THE STUDY ON MASTER PLAN ON RENEWABLE WATER RESOURCES
DEVELOPMENT IN THE SOUTH WEST OF SAUDI ARABIA**

**AGREED UPON
BETWEEN**

**THE MINISTRY OF WATER AND ELECTRICITY (MOWE)
THE KINGDOM OF SAUDI ARABIA
AND
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)**

November 16, 2009, Riyadh

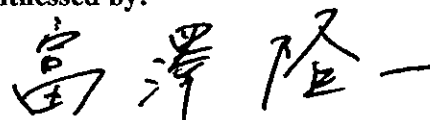


**Dr. Mohammed I. Al Saud
Deputy Minister for Water
Affairs
Ministry of Water and Electricity
(MOWE)**



**Mr. Masatomo Watanabe
Team Leader of the Study Team
Japan International Cooperation
Agency (JICA)**

Witnessed by:



**Mr. Ryuichi Tomizawa
Resident Representative
Japan International Cooperation
Agency (JICA)**

The 8th Steering Committee Meeting was held between the Ministry of Water and Electricity ("the MOWE") and the Study Team "The Study on Master Plan on Renewable Water Resources Development in the southwest Region in the Kingdom of Saudi Arabia (Study Team)" on 16 November 2009 at the Meeting Room of MOWE in Riyadh.

The Study Team explained the progress of the Study including, 1) renewable water resources potential by basin, 2) future water demands of municipal and agricultural uses by Governorate, 3) the hard drought in recent years, 4) conceptual plan of Total Water Supply System in the Study Area. Also the MOWE and the Study Team discussed the program and the time schedule in December 2009 and January 2010 when many important events are scheduled.

Finally the mutual discussion concluded the following matters:

1. Renewable Water Resources Potentials

The total renewable water potential was estimated to be 1.6 Billion cubic meters/year in the Study Area and it will be evaluated in order to obtain the usable renewable water volumes that can be developed by clarifying type of facility, the location and development volume and etc.

2. Future Water Demand and Renewable Resources

The current and future municipal water supply systems for three regions (Al Baha, Asir, Jazan) were discussed. These systems will be presented in more details including time schedules of implementation.

3. Total Renewable Water Resources Development Plan

The Study Team proposed a conceptual plan of Total Water Supply System that has been examined by the Study Team for connecting water resources and users with the pipelines across the regions.

MOWE commented that the proposal plan is acceptable and the Study Team shall examine more and reported it.

4. Future Agricultural Area in Jazan Region

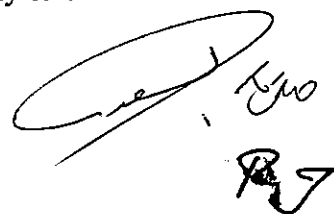
The Study Team stressed the critical situation of excess groundwater extraction in Jazan Region. The current high volume of groundwater extraction will soon destroy the groundwater aquifer by the intrusion of sea water.

To avoid this, the Study Team proposed that groundwater use volume should be minimized to sustain the current ground water level.

5. Hard Drought in Recent Years

It was reported that a number of regions in the Study Area is being suffered from low precipitation and drought in the last several years.

The Study Team will introduce the backup system for water supply to survive under this critical situation.

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6. Team Work and Effective Collaboration

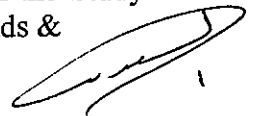
In response to the JICA Study Team's appeal to the general managers of General Directorate of Water in three regions (Al Baha, Asir, Jazan), the three of them will effectively to be involved in the JICA Study and collaborate with the Study Team until master plan formulation is completed.

7. Study Schedule

The Study Team will rapidly resume its investigation towards formation of master plan right after Haji holiday on the 8th of December. The Study Team proposed the stakeholder meeting on January 17, 2009 in Abha and the 9th Steering Committee to on January 26, 2010 in Riyadh.

8. Total Water Resources Management

MOWE requested that a total integrated water resources management in the Study Area should be applied considering all the water use and estimated demands & supply.

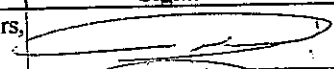
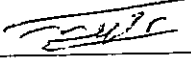
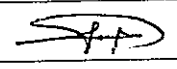
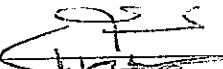
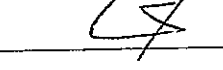
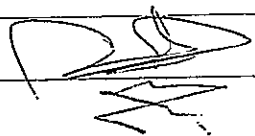
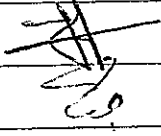
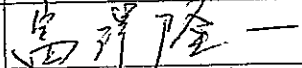
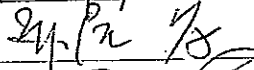
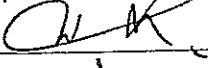


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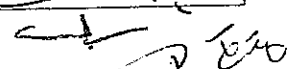


**THE STUDY ON MASTER PLAN ON RENEWABLE RESOURCES DEVELOPMENT(REWARD) IN THE
SOUTHWEST REGION IN THE KINGDOM OF SAUDI ARABIA**

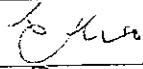
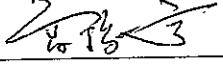
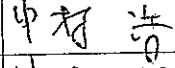
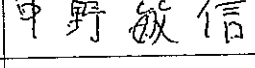
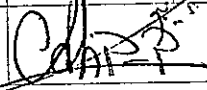
The 8th Steering Committee Meeting

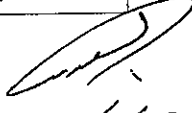
No.	Classification	Name	Section & Position	Signature
1	Steering Committee, MOWE	Dr. Mohammed I Al Saud	Deputy Minister of Water Affairs, MOWE	
2	ditto	Said Ali Al Duair	Director General for Water Resources Development Department, MOWE	
3	ditto	Abdulaziz Al-Kahlan	Director of Hydrology Division	
4	ditto	Helal Ayedh Al-Harhi	Director of Water Research & Studies Division	
5	ditto	Fahad Ahmed Al-Benjan	Senior Geologist	
6	ditto	Metib Al-Khatany	Senior Geologist	
7	ditto	Abdulaziz bin Saleh Al-Hassan	Senior Hydrogeologist	
8	ditto	Hatim Sarin Ratah	Senior Hydrologist	
9	ditto	Ghanem Abdulaziz Al-Ghanem	Hydrogeologist	
10	ditto	Saleh Al Meeman	Engineer of Project Execution Department	
11	ditto	Dr. Ayaz Hasan	Consultant	
	V.O.P.A - D	Abdullah Al-Khalifa		
12	General Directorate of Water, Asir	Yazeed Y. Alayedh	Director General Manager	
13	ditto	Mohammad A. Al Shamrani	Senior Geologist	
14	ditto	Yahia Motawa	Geologist	
15	General Directorate of Water, Jazan	Hamzah Ganai	Director General Manager	
16		Ahmad Hassan Najmi	Senior Geologist	
17		Sami Hakumi	Geologist	
18	General Directorate of Water, Al Baha	Mohammed Mansour Al Odhayd	Director General Manager	
19	ditto	Jabr M.S Al-Fifi	Senior Geologist	
20	ditto	Fahad Mifta AL Zahrani	Geologist	
21	JICA Saudi Arabia Office	TOMIZAWA Ryuich	Resident Representative	
22	ditto	AKAO Takashi	Assisitant Resident Representative	
23	ditto	Ihab M. AL-SHARKAWI	Senior Program & Executive Manager	

Ibrahim Alisoudi



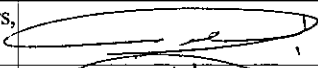
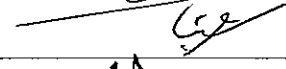
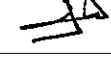
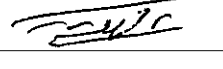
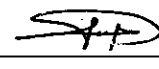
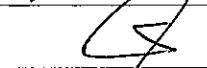
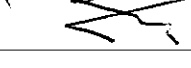
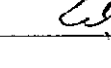
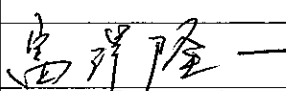
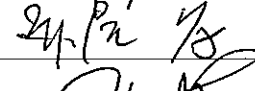
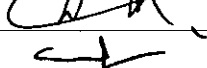
**THE STUDY ON MASTER PLAN ON RENEWABLE RESOURCES DEVELOPMENT(REWARD) IN THE
SOUTHWEST REGION IN THE KINGDOM OF SAUDI ARABIA**

No.	Classification	Name	Section & Position	Signature
24	JICA Study Team	WATANABE Masatomo	Team Leader	
25	ditto	TAKAHASHI Toru	Deputy Team Leader / Water Resources	
26	ditto	NAKAMURA Hiroshi	River/Hydrology	
27	ditto	NAKANO Toshinobu	Agriculture/Irrigation	
28	ditto	KATO Izumi	Geology/Hydrogeology	
29	ditto	FUJIYAMA Taketoshi	Water Supply/Desalination & Waste Water Reuse	
30	ditto	Dr. EIBO Ahmad	Interpreter/Coordinator	


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**THE STUDY ON MASTER PLAN ON RENEWABLE RESOURCES DEVELOPMENT(REWARD) IN THE
SOUTHWEST REGION IN THE KINGDOM OF SAUDI ARABIA**

The 8th Steering Committee Meeting

No.	Classification	Name	Section & Position	Signature
1	Steering Committee, MOWE	Dr. Mohammed I Al Saud	Deputy Minister of Water Affairs, MOWE	
2	ditto	Said Ali Al Duair	Director General for Water Resources Development Department, MOWE	
3	ditto	Abdulaziz Al-Kahlan	Director of Hydrology Division	
4	ditto	Helal Ayedh Al-Harathi	Director of Water Research & Studies Division	
5	ditto	Fahad Ahmed Al-Bejan	Senior Geologist	
6	ditto	Metib Al-Khatany	Senior Geologist	
7	ditto	Abdulaziz bin Saleh Al-Hassan	Senior Hydrogeologist	
8	ditto	Hatim Sarin Ratah	Senior Hydrologist	
9	ditto	Ghanem Abdulaziz Al-Ghanem	Hydrogeologist	
10	ditto	Saleh Al Meeman	Engineer of Project Execution Department	
11	ditto	Dr. Ayaz Hasan	Consultant	
	W.P.-D	Ahmad Al-Khalifa		
12	General Directorate of Water, Asir	Yazeed Y. Alayedh	Director General Manager	
13	ditto	Mohammad A. Al Shamrani	Senior Geologist	
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17		Sami Hakumi	Geologist	
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20	ditto	Fahad Mifta AL Zahrani	Geologist	
21	JICA Saudi Arabia Office	TOMIZAWA Ryuich	Resident Representative	
22	ditto	AKAO Takashi	Assisitant Resident Representative	
23	ditto	Ihab M. AL-SHARKAWI	Senior Program & Executive Manager	

Ibrahim Alisowdi

**MINUTES OF MEETING
FOR THE 9th STEERING COMMITTEE
ON
STUDY PROGRESS AS OF JANUARY 2010
FOR
THE STUDY ON MASTER PLAN ON RENEWABLE WATER RESOURCES
DEVELOPMENT IN THE SOUTH WEST OF SAUDI ARABIA
AGREED UPON
BETWEEN**

**THE MINISTRY OF WATER AND ELECTRICITY (MOWE)
THE KINGDOM OF SAUDI ARABIA**

**AND
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
January 27, 2010, Riyadh**

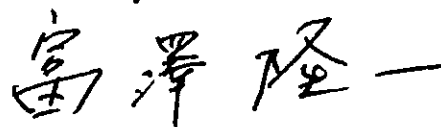


**Dr. Mohammed I. Al Saud
Deputy Minister for Water Affairs
Ministry of Water and Electricity
(MOWE)**



**Mr. Masatomo Watanabe
Team Leader of the Study Team
Japan International Cooperation
Agency (JICA)**

Witnessed by:



**Mr. Ryuichi Tomizawa
Resident Representative
Japan International Cooperation
Agency (JICA)**

The chairman Dr. A Mohammed I. Al Saud opened the 9th Steering Committee Meeting at 9:30 a.m. between The JICA Study Team "The Study on Master Plan on Renewable Water Resources Development in the southwest Region in the Kingdom of Saudi Arabia (Study Team)" and the counterparts at the room hall in the Ministry of Water and Electricity ("the MOWE") on January 26, 2010 (Safar 11, 1431H) in Riyadh.

At the beginning of the meeting the Study Team explained outline of the progress Report (2) and focused on three major subjects 1) Water Supply Facilities for the 3 regions (Al-Baha Region, Asir Region and Jazan Region) & Red Sea Water Life Line Plan, 2) Management of Water Supply System, 3) Recycle Use of Reclaimed Wastewater.

After mutual discussion on the subjects presented by the Study Team, the following items were concluded:

1. Feedback of Progress Report (2)

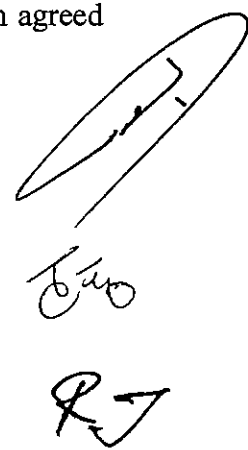
The MOWE committee members commented that the Progress Report (2) was submitted on Monday Jan 25, 2010 and requested additional time to examine it and then give feed back on it to the Study Team within a month and will be sent to the Team by E-mail. In response the Study Team agreed to accept this action.

2. Development Method of Renewable Water Resources

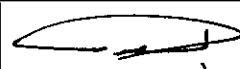
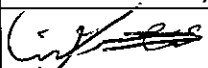
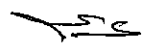
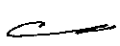
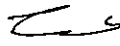
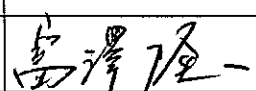
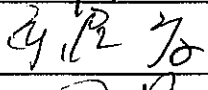
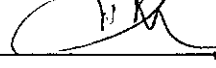
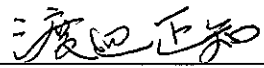
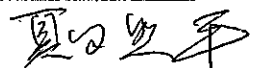
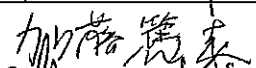
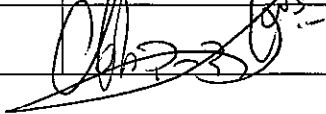
The study Team introduced the most appropriate methods for developing Renewable Water 1) Surface Water Development by large dam 2) Surface Water & Ground Development by combination with large Dam and Aquifer 3) Groundwater Development by the Recharge Dams and explained that increasing groundwater recharge by controlling discharge dam is possible. MOWE accepted the three presented methods and pointed out that including underground dams alongside the presented methods is important. The Study Team agreed and will take it under consideration.

3. Organization of water Management

The Study Team proposed a conceptual plan of establishing a National Water Resources Corporation (NNWRC) whose tasks are 1) Developing and Supplying Renewable Water 2) Coordinating between Water Organizations (SWCC, NWC, others) and Users. MOWE commented that the proposal is acceptable. Also MOWE verified the current system structure of the existing water related organizations and requested correction. The Study Team agreed to revise it accordingly.

Handwritten signature and initials in black ink, located at the bottom right of the page. The signature appears to be 'Saud' and the initials are 'R.J'.

**THE STUDY ON MASTER PLAN ON RENEWABLE WATER RESOURCES DEVELOPMENT (REWARD)
IN THE SOUTHWEST REGION IN THE KINGDOM OF SAUDI ARABIA**
Attendance List of Steering Committee Meeting (Cpunterparts Meeting)

No.	Region	Name	Section & Position	Signature
1	MOWE Headquarters	Dr. A Mohammed I. Al Saud	Deputy Minister of Water Affairs, MOWE	
2	ditto	Mr. Abdulaziz Al-Kahlan	Director of Hydrology Division	
3	ditto	Mr. Hatim Sarin Ratah	Senior Hydrologist	
4	ditto	Mr. Ghanem Abdulaziz Al-Ghanem	Hydrogeologist	
5	ditto	Mr. Hassan Al Sherme	Senior Geologist	
6	ditto	Mr. Mohammed Almuala	Senior Geologist	
7	ditto	Mr. MeSallem Al Ahmas	Eng. Project execution Dept.	
8	ditto	Mr. Abdullah Alohal	Senior Engineer, Project execution Dept.	
9	ditto	Mr. Al Subhi Addullah	Water Resources Development Dept.	
10	JICA Saudi Arabia Office	Mr. TOMIZAWA Ryuichi	Resident Representative	
		Mr. AKAO Takeshi	Assistant Resident Representative	
		Ihab M. Al-Sharkawi	Senior Program Manager	
11	JICA Study Team	Mr. WATANABE Masatomo	Team Leader	
12	ditto	Mr. OCHII Yasuhiro	Deputy Team Leader	
13	ditto	Mr. NATSUDA Shohei	Economic and Financial Analysis	
14	ditto	Mr. KATO Atsushi	Coordinator (Computer specialist)	
15	ditto	Mr. Eibo Ahmad	Interpreter	

**MINUTES OF MEETINGS
FOR THE 10th STEERING COMMITTEE
ON
THE DRAFT FINAL REPORT**

**FOR
THE STUDY ON MASTER PLAN ON RENEWABLE WATER RESOURCES
DEVELOPMENT IN THE SOUTH WEST OF SAUDI ARABIA**

**AGREED UPON
BETWEEN**

**THE MINISTRY OF WATER AND ELECTRICITY (MOWE)
THE KINGDOM OF SAUDI ARABIA**

**AND
THE STUDY TEAM
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)**

May 25, 2010, Riyadh



**Dr. Mohammed I. Al Saud
Deputy Minister,
Ministry of Water and Electricity
(MOWE)**



**Mr. Masatomo Watanabe
Team Leader of the Study Team
Japan International Cooperation
Agency (JICA)**

Witnessed by:



**Mr. Ryuichi Tomizawa
Resident Representative
Japan International Cooperation
Agency (JICA)**

The chairman, Dr. A Mohammed I. Al Saud opened the 10th Steering Committee Meeting on 9:00 p.m. among the counterparts from MOWE, the JICA Study Team for "the Study on Master Plan on Renewable Water Resources Development in the southwest Region in the Kingdom of Saudi Arabia" and JICA Monitoring Mission at the meeting room of MOWE on May 25th, 2010 (Jumada^{II} 11, 1431H) in Riyadh.

The Study Team explained the main results of the Study focusing on 1) Projection of Water Demand, 2) Renewable Water Resources Potential, 3) Water Policy & Strategy and Action Plan for the 5 Regions, 4) Formulation of Water Master Plan for the 3 Regions 5) Recommendations concerning implementation of the proposed projects including Renewable Water Production Company (RWPC) & Red-Sea Water Lifeline Projects (REWLIP).

After mutual discussion on explanation by the Study Team, the following items were concluded:

1. Draft Final Report

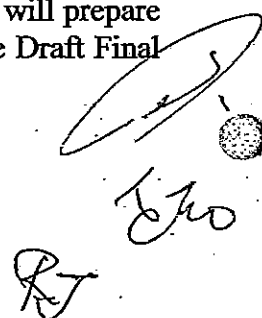
The MOWE Steering Committee accepted the Draft Final Report submitted and explained by the Study Team, and commented that the report is satisfactory and useful for implementation of the future water projects.

2. Comments on the Draft Final Report

The MOWE Steering Committee promised to report their comments within a month.

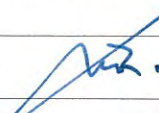
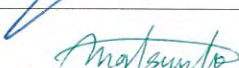
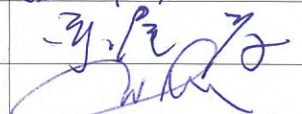
3. Terms of Reference

The MOWE Steering Committee and the Study Team agreed that the Study Team will prepare and submit the Terms of Reference for the Feasibility Study recommended in the Draft Final Report.

Handwritten signatures and initials in the bottom right corner. There is a large, stylized signature that appears to be 'S' or 'Saud'. Below it, there are initials 'Eko' and 'RT'.

**THE STUDY ON MASTER PLAN ON RENEWABLE RESOURCES DEVELOPMENT(REWARD) IN THE
SOUTHWEST REGION IN THE KINGDOM OF SAUDI ARABIA**

Steering Committee Meeting

No.	Classification	Name	Section & Position	Signature
1	Steering Committee, MOWE	Dr. Mohammed I Al Saud ✓	Deputy Minister of Water Affairs, MOWE	
2	ditto	Said Ali Al Duair ✓	Director General for Water Resources Development Department, MOWE	
3	ditto	Abdulaziz Al-Kahlan ✓	Director of Hydrology Division	
4	ditto	Helal Ayedh Al-Harhi ✓	Director of Water Research & Studies Division	
5	ditto	Ahmed Al Khalifa ✓	Assistant Director of Water Research & Studies Division	
6	ditto	Fahad Ahmed Al-Beajan	Senior Geologist	
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8	ditto	Abdulaziz bin Saleh Al-Hassan ✓	Senior Hydrogeologist	
9	ditto	Hatim Sarin Ratah	Senior Hydrologist	
10	ditto	Ghanem Abdulaziz Al-Ghanem ✓	Hydrogeologist	
11	ditto	Saleh Al Meeman	Engineer of Project Execution Department	
12	ditto	Dr. Ayaz Hasan	Consultant	
13	✓	atmuala mohammed Al senior geologist		
14	The University of Tokyo	Dr. TOSAKA Hiroyuki	Professor, Department of Systems Innovation, Graduate School of Engineering	登坂博行
15	Embassy of Japan	TOKIOKA Toshikazu	Second Secretary	時岡 隆一
16				
17	JICA Monitoring Mission	NAGATA Kenji	Team Leader of Monitoring Mission, JICA Headquarters	
18	ditto	MATSUMOTO Shigeyuki	Member of Monitoring Mission, JICA Headquarters	
19	JICA Saudi Arabia Office	TOMIZAWA Ryuich	Resident Representative	富澤 隆一
20	ditto	AKAO Takashi	Assistant Resident Representative	赤尾 隆子
21	ditto	Ihab M. AL-SHARKAWI	Senior Program & Executive Manager	
22	JICA Study Team	WATANABE Masatomo	Team Leader	渡辺 正知
23	ditto	TAKAHASHI Toru	Deputy Team Leader / Water Resources	高橋 亨
24	ditto	OCHII Yasuhiro	Deputy Team leader/Water Resource Development Management	落井 康裕
25	ditto	OURA Hisashi	Social/Organization/Institutions	浦 英志
26	ditto	Dr. EIBO Ahmad	Interpreter/Coordinator	