

1 INVITATION LETTERS

1.1 Abu Alanda Invitation

As mentioned in the Draft ESA and Record of Public Consultation Report, invitations to Abu Alanda session were done by door-to-door visits to random selection of residences and commercial shops along the portion of the conveyor route passing through the areas of Abu Alanda, Khirbet Es-Suq, and El-Quesmeh. Although there was no official form of an invitation letter, a brief description of the project and its expected positive and negative impacts were presented to different invited groups.

1.2 Amman-Madaba Invitation Letter

Dear Sir,

Project: Disi-Mudawarra to Amman Water
Conveyance System

Purpose: Environmental and Social
Assessment

Subject: Invitation for the Draft ESA Public
Consultation Session

The Ministry of Water and Irrigation of Jordan has retained Consolidated Consultants for Engineering and Environment to conduct the Environmental and Social Assessment Study for the Disi-Mudawarra to Amman Water Conveyance System.

As part of this project, the Consultant is conducting a public consultation session to inform the project stakeholders about the results of the environmental and social assessment study. Participants will include representatives from Ministries, government organizations, affected parties, agricultural companies, and municipalities and residents of the project area.

The Ministry of Water and Irrigation invites you to participate in this consultation session. The session is to be held at Amra-Crown Plaza Hotel - Amman, on Tuesday November 18th, 2003 at 9:30 a.m. Attached you will find a briefing about the project results.

Fax Number: 06-4612380

Yours Sincerely,

Eng. Sa'd Al-Bakri
Secretary General

1.3 Aqaba-Ma'an Invitation Letter

Dear Sir,

Project: Disi-Mudawarra to Amman Water
Conveyance System

Purpose: Environmental and Social
Assessment

Subject: Invitation for the Draft ESA Public
Consultation Session

The Ministry of Water and Irrigation of Jordan has retained Consolidated Consultants for Engineering and Environment to conduct the Environmental and Social Assessment Study for the Disi-Mudawarra to Amman Water Conveyance System.

As part of this project, the Consultant is conducting a public consultation session to inform the project stakeholders about the results of the environmental and social assessment study. Participants will include representatives from Ministries, government organizations, affected parties, agricultural companies, and municipalities and residents of the project area.

The Ministry of Water and Irrigation invites you to participate in this consultation session. The session is to be held at Radisson SAS Hotel- Aqaba, on Thursday November 20th, 2003 at 10:00 a.m. Attached you will find a briefing about the project results.

Fax Number: 06-4612380

Yours Sincerely,

Eng. Sa'd Al-Bakri
Secretary General

2 LIST OF INVITEES

2.1 Abu Alanda Invitees

As invitations to Abu Alanda session were done by door-to-door visits, the invitees were a random selection of inhabitants and businesses along the conveyor alignment.

2.2 Amman-Madaba List of Invitees

Table 1: List of invitees at Amman consultation session

	Workshop Participants/Name of Institution	Participants Name	Number of Invited Individuals
Ministries and Governmental Authorities			
1	Ministry of Water and Irrigation	Eng. Sa 'ad Bakri Eng. Fayez Bataineh Eng. Edward Qanqar Eng. Nazeer Abu Arqoub Eng. Mohammad Najjar Eng. Jamal Kawasmeh Eng. Sultan Mshabkeh	7
2	Water Authority of Jordan (WAJ)	Eng. Ahmad Abu Zayoud Eng. Munther Khleifat Eng. Saleh Milkawi Eng. Mohammad Al-Adily Eng. Khaled AL-Qdah Zakariya Tarawneh Dr. Nawal Al-Sanaah Eng. Jihad Abu Jamous	7
3	Jordan Valley Authority (JVA)	Eng. Khayri A'mari Eng. Farouk Kana'an Eng. Fawzi Aababneh	3
4	Ministry of Agriculture	Secretary General Eng. Falah A'awamleh	2
5	Ministry of Tourism and Antiquities	Eng. Mirvat Ma'moun Houbash	1
6	Ministry of Public Works and Housing	Eng. Sami Halaseh Eng. Wafaa Hadaddine Eng. Rawan Mobarak	3
7	Ministry of Social Development	Secretary General Mr. Khalyi Halalat	2
8	Ministry of Environment	Secretary General Mr. Raeda A'dwan Mr. Abdel Rahim Wreikat Mr. Ahmad Mahmoud Saeed	4
9	Ministry of Municipal Affairs	Minister of Municipal Affairs Secretary General Eng. Nabil Shawareb Eng. Lamya Zoubi	4
10	Ministry of Transport	Secretary General	1
11	Ministry of Health	Mr. Mohammad Al-Abadi (Head of Water Monitoring Department) Eng. Saleh Nemrawi Mr. Salah Al Hiari	2
12	Ministry of Interior	Secretary General Amman Governor Lieutenant Colonel Eng. Oudeh Al-Khalayleh	3

	Workshop Participants/Name of Institution	Participants Name	Number of Invited Individuals
13	Greater Amman Municipality	General Director Dr. Hussein Zaki	2
14	Department of General Antiquities	General Manager	1
15	Department of Public Security	Representative	1
16	Department of Civil Defense	Colonel Ahmad Ali Al-Momani Lieutenant Colonel Khaled Dabbad	2
17	Natural Resources Authority	Mr. Khaled Al-Shawabkeh	1
18	National Electricity Production Company	Director General Eng. Hassan Abed ELHamid Eng. Suleiman Al-Hiari	3
19	Land and Survey Department	Director General	1
20A	Amman Chamber of Industry	Director General	1
20B	Amman Chamber of Commerce	Director General	1
21	Ministry of Planning	Secretary General Dr. Kamal Khدير	2
Organizations			
22	Royal Scientific Society	Dr. Mohammad Saydam	1
23	The Royal Society for the Conservation of Nature	Mr. Maher Keshawi	1
24	National Society for Environment and Wildlife	Eng. Nabil Abu Shariha Mr. Mohammed Sherif Jayousi	2
25	Jordan Environment Society (Amman)	Representative	1
26	Jordan Environment Society (Madaba)	President: Mr. Mohammad Al-Hroud	1
27	National Society for Preservation of the Heritage of Madaba and its Suburbs	Mr. Akram Masarweh	1
28	Assembly of Social Development for Bani Hamidah Village	Representative	1
29	Aqsa Charitable Society	Ms Nawal Al-Faoury (Mobile: 077-399256)	1
30	Farmers Association	Mr. Bassam Al-Khasawneh (Irbid)	1
31	Kreditanstalt für Wiederaufbau (KfW)	Mr. Schmidt	1
32	United States Agency for International Development (USAID)	Dr. Amal Hijazi	1
33	United Nations Development Programme (UNDP)	Boualem Aktouf	1
34	German Technical Cooperation (GTZ)	Ms Shaden Al-Qsous Thomas Ziegelmayer Dr. Andreas Kuck	3
35	UNIFEM	Dr. Hayfa Abu Ghazalleh	1
36	Jordan River Foundation	Ms Maha Khateeb	1
37	Noor El Hussein Foundation	Ms Hana Shahine	1
38	Jordan Forum of Business and Professional Women	Ms Wijdan As-Sakett	1
39	Jordanian Society for Family Organization and Protection	Representative	1
Community Representatives			
40	Alyadodeh Village Council	Representative	1
41	Madaba Municipality	Mayor	1
42	Aljezah Municipality	Mayor	1
43	Alqastal Municipality	Mayor	1
Universities			
44	Jordanian University	Dr. Manar Fayyad Dr. Fawzi Rayyan Dr. Ayman Bani Hani	3
45	Al-Hashimeyah University	Dr. Ali Al-Naqah	1
46	Al-Balqa University	Dr. Yassine Al-Zoubey	1
47	Jordan University of Science and Technology	Dr. Mona Hindieh	1

	Workshop Participants/Name of Institution	Participants Name	Number of Invited Individuals
Private Sector and Consultants			
48	Rum Farms	Mr. Mikdad A'anab	1
49	Al-Wafa for Agricultural and Animal Investment and Development (WADICO)	Mr. Ibrahim Hassan, General Manager	1
50	Arab Company for Cereals, Forage and Meat (GRAMICO)	Mr. Ali Sheimat	1
51	Arab International for Agricultural Development	Mr. Mohammad Sameih Barakat (or) Mr. Mohammad Nimr Barakat	1
52	Hydrotech	Eng. Ismail Hashem	1
53	Arab Center (ACE)	Dr. Amjad Al-Barghouti	1
54	Associated Consulting Engineers (ACE)	Eng. Jawdat Yaghmour	1
Others			
55	Previous Employee of Ministry of Planning	Eng. Bolous Kefayeh	1
56	Japan International Cooperation Agency (JICA)	Hani AlKurdi Kobayashi Tsutomu	2
57	European Union (EU)	Mario Mariani	1
58	LEMA-Executive Manager	Philippe Odievre	1
Total number of Invitees			93

2.3 Aqaba-Ma'an List of Invitees**Table 2: List of invitees at Aqaba consultation session**

	Workshop Participants/Name of Institution	Participants Name	Number of invited Individuals
Ministries and Governmental Authorities			
1	Ministry of Water and Irrigation	Eng. Fayez Bataineh Eng. Mohammad Najjar Eng. Jamal Qawasmeh	3
2	Ma'an Governorate	The Governor of Ma'an	1
3	Tafilah Governorate	The Governor of Tafilah	1
4	Karak Governorate	Governor of Karak	1
5	The Governor of Aqaba	Mr. Khalid Abu Jaid	1
6	Disi District	Mr. Mohammad Mattar Al-Zaidanyine	1
7	Badia Force	Representative	1
8	Public Security Force	Representative	1
9	Disi Municipality	Sheikh Mahmoud Eid Al-Maznneh	1
10	Head of Municipal Services	Eng. Isam Jaradat	1
11	Ma'an Municipality	Dr. Khaled Al-Majaly Eng. Souad Nayef Yousef	2
12	Alqatraneh Municipality	Representative	1
13	Al Hasa Municipality	Mr. Qasem Al-Maraghiya	2
14	Al Jafar Municipality	Mr. Fares Masnad Abu Tayeh	1
15	Bair Municipality	Mayor	1
16	President of ASEZA	Mr. Aqel Beltagi Mr. Mohammad Balqar	2
17	ASEZA - Directorate of Environmental Planning - Division of Permitting & EIA	Dr. Bilal Al-Basheer Dr. Saleem Moghrabee Mr. Samir Dweiri	3
18	Aqaba Water Authority	Assistant to Secretary General Mr. Bilal Al-A'asi	2
19	Water Authority for Southern Regions	Secretary General Eng. Jihad Al-Sakrat	2
20	Tafileh Water Authority	Eng. Khaled Al-Abddine	1
21	Karak Water Authority	Eng. Malik Al-Rawashdeh	1
22	Ma'an Water Authority	Eng. Walid Al-Deikh \ Eng. Ibrahim Al-Nawafleh	2
23	National Electricity Company	Eng. Bader Tashtoush	1
Organizations			
24	The Valley Society for Social Development	Representative	1
25	Women Society for Valley Development	Representative	1
26	Charitable Development Society for Youth of Ma'an	Representative	1
27	Association for Charitable Societies (Ma'an)	Representative	1
28	Society for Development of Tafileh Governorate Cooperation	Representative	1
29	Jordan Environment Society (Aqaba, Tafileh and Karak)	Eng. Mohammad Al-Hjouj (Aqaba) Mr. Ghazi Al-A'marine (Tafileh) Eng. Jamil Al-Ja'fra (Karak)	3
30	Al-Hasa Women Charitable Society	Representative	1
31	Association for Charitable Societies (Tafileh)	Representative	1
32	Al-Huseeiniah Charitable Society for Social Work	Representative	1
33	Shihan Housewives Society	Representative	1
34	Association of North Karak Villages Cooperation (Tafileh)	Representative	1
35	Jordan Fund for Human Development (Disi)	Ms Khawla Al-Zawaideh	1

	Workshop Participants/Name of Institution	Participants Name	Number of invited Individuals
36	Previous Head of a Municipality	Mr. Atallah Mohammad Salman Al-Zawaideh (Abu Muwafaqa)	1
37	Previous Member of the Parliament	Sheikh Nasr Salem Al-Zawaideh	1
38	Community Representative	Sheikh Obeid Mohammad Al-Qseirat (Al-Zaweideh)	1
39	Community Representative	Sheikh Nayef Khalyal A'ayal Mtlaga	1
40	Disi Agricultural Office	Eng. Omar Bashir Al-Lahham	1
41	Aqaba Agricultural Office	Mr. Tayseer Shabatat	1
42	Rum Reserve	Mr. Mahmoud Bdoor	1
43	Rum Valley Cooperative and Touristic Society	Representative	1
44	Al-Saliheya and Al-Shakiriya Cooperative Society	Representative	1
45	Jordanian Women Association in Aqaba	Da'ad Sultan	1
46	Women Organization in Aqaba	Ms Hanaa Trayzim	1
46B	Association of Beneficiary Organizations / Aqaba	Representative	1
Universities			
47	Moata University	Representative	1
48	Al-Hussein University	Mr. Ali Hamdi Abu Slim (Faculty of Educational Sciences)	1
Total number of Invitees			61

3 AGNEDAS

3.1 Amman-Madaba Agenda

**ENVIRONMENTAL AND SOCIAL ASSESSMENT DRAFT ESA PUBLIC
CONSULTATION SESSION FOR
DISI-MUDAWARRA TO AMMAN WATER CONVEYANCE SYSTEM
AMRA HOTEL – AMMAN
18 NOVEMBER 2003**

9:30 – 10:00 Registration

10:00 – 10:15 Opening Statements – Welcoming Remarks
Ministry of Water and Irrigation

10:15 – 10:45 Presentation of the Project Results

11:45 – 1:30 Discussion of the Results

1:30 – 2:00 Session Rap-up

Please confirm your attendance by calling number 4612377 (extension 511) or send by fax number .

3.2 Aqaba-Ma'an Agenda

ENVIRONMENTAL AND SOCIAL ASSESSMENT DRAFT ESA PUBLIC CONSULTATION SESSION FOR DISI-MUDAWARRA TO AMMAN WATER CONVEYANCE SYSTEM

**RADISSON SAS HOTEL – AQABA
20 NOVEMBER 2003**

10:00 – 10:15 Registration

10:15 – 10:30 Opening Statements – Welcoming Remarks
Ministry of Water and Irrigation

10:30 – 10:45 Presentation of the Project Results

11:45 – 1:30 Discussion of the Results

1:30 – 2:00 Session Rap-up

**Please confirm your attendance by calling phone number 06-4612377 (Extension 511) or
send by fax number 06-**

4 SUMMARY OF THE ENVIRONMENTAL AND SOCIAL ASSESSMENT STUDY

Disi-Mudawarra to Amman Water Conveyance System

Environmental and Social Assessment (ESA)

Draft ESA Public Consultation Session

Outline

- Objectives of Public Consultation Session
- Objectives & Description of the Project
- Environmental & Social Assessment Process
- Jordan's Policy & Legal Framework
- World Bank Operational Policies
- Results of Public Consultation Sessions
- Water Sector Assessment
- Project Specific Environmental & Social Assessment

Objectives of Public Consultation Session

- To present to project-affected groups the findings of the Water Sector Assessment and the Environmental & Social Assessment (ESA) Study
- To provide the consulted groups with the relevant ESA material
- To inform the public that the ESA study will be made available at a public place accessible to project-affected groups & local non-governmental organizations (NGOs)

Project Objectives

- To supply additional high quality water to Greater Amman from the deep fossil Disi Aquifer in southern Jordan
- To reduce groundwater abstractions in Greater Amman region & allow partial restoration of renewable resources in this region
- To provide 5 emergency turn-outs from the conveyance pipeline to make available a reliable supply of water to urban areas along the pipeline under emergency conditions & for short durations

Need for the Environment and Social Assessment (ESA)

- Jordanian Government Requirement
 - Compliance with national regulations
 - Informing decision makers of the environmental & social risks associated with the project
- World Bank (WB) Requirement
 - Environmentally & socially sound & sustainable
- Transparency & public participation in the decision making process

Objective of the Assignment

- Main objectives of the ESA are to:
 - Identify & recommend actions to avoid &/or mitigate potential adverse environmental & social impacts that will be integrated into Project design, construction & operation
 - Conduct a formal process of public participation & consultation, including public information meetings & consultation on the scope of the work for the ESA, & timely consultation of draft ESA reports

Extended Area of Influence

- Main zone of populations benefiting from & affected by the project
 - Greater Amman region
 - Urban Areas along the pipeline corridor & the natural habitat areas along the pipeline route
- Areas Affected by the water & irrigation policy & framework of Jordan
 - This covers surface & ground water users within Jordan

Significant Issues for Water Resources

- Justification of project need
- Contribution of the Disi project to Jordan's water budget & other alternatives considered for facing the water shortage problem

Significant Issues for Social Component

- Allocation of percentage of required labour for local residents alongside the pipeline & in Disi
- Public health & safety considerations during construction phase
- Launching public awareness campaign explaining the benefits of the project before & during work
- Compensation for damage incurred to commercial institutions (especially at Qatraneh, Al-Jiza, & Abu Alanda)
- Studying available services (especially high voltage lines & tower bases) & obstacles at the path of the pipeline before offering tender for the project
- Keeping away from cross-roads as much as possible
- Coordination with various service establishments
- Public health improvement due to water quality improvement
- Disruption of traffic movement for residents & large vehicles along Desert Highway & last third of the conveyor route
- Indigenous people (Tribes at Badia area)
- Coordination with the army in order to identify possible mine areas along route of the conveyor

Overview Water Sector

- In trying to meet the country's growing water demand, groundwater aquifers are being exploited at more than double their sustainable yield in average
- For a number of years supply has been outstripped by demand in the Greater Amman Area & WAJ has had no option but to implement a water rationing program during summer months
- The Disi-Mudawarra to Amman Water Conveyance System will result in a reliable water supply to Amman especially during the summer
- However, the Disi project would cover **only part of** the water shortage problem **but would not close** the country's growing water gap

Potential Impacts

- Direct
 - Supply additional domestic water to Greater Amman Area
 - Increase per capita share for domestic demand
 - Relief over exploited aquifers & elevate water table level in relieved aquifers
 - Reliable water quantity & better water quality will have positive implications on health aspects of the society

- Indirect
 - Reduction in damage to groundwater quality in relief aquifers
 - Reduction in abstraction will enhance renewable process of Azraq aquifer & associated wetland which in turn would enhance biodiversity at Azraq Oasis
 - Treated wastewater will be of better quality & of reliable quantity due to characteristics of Disi source & treated wastewater in KTDR will be acceptable for irrigation purposes for most crops planted in Jordan Valley

Socio-Economic Conditions

- Traffic Disturbance
 - Increased traffic density & disturbance
 - Partial &/or total closure of:
 - local road systems
 - Desert Highway
 - Railway at several locations
 - Diverting traffic through temporary access roads or by detours through residential areas & congested areas
- Effect on Locals & Employees Public Safety:
 - Car accidents & Vehicular-pedestrian conflicts
 - Deep excavations close to residential areas & open trenches in Abu Alanda, Aljiza & Qatraneh areas
 - Stored materials including fuel & other chemicals
 - Ignorance & non compliance with the construction workers safety requirements
 - Movement & operation of heavy equipments within construction corridor of Desert Highway - Rum-Disi road
- Infrastructure Utilities & Social Disturbances
 - The proposed pipe route crosses & passes close to a large number of utilities/facilities that serves residential areas
 - Many utilities are anticipated to impose specific constrains on the work design & execution.
- Disturbance to local societies :
 - Pipeline trench (4m by 4m) might be hazardous to pedestrians particularly children
 - Disturbance to water supply & wastewater services
 - Disturbance to power supply especially
 - Business disruption

Archaeological & Cultural Heritage Sites

- Direct threat of damage to:
 - Area of Cave of Seven Sleepers
 - Cave of the Seven Sleepers
 - Mausoleum
- Indirect impacts or accidents might affect:
 - Al - Qatraneh Castle
 - Press
 - Al - Juwayda Mausoleum
 - Al- Qastal; Al - Jiza Pool
 - The Byzantine Church

5 HANDOUTS DISTRIBUTED AT DRAFT ESA PUBLIC CONSULTATION SESSIONS

5.1 English Handout

<p style="text-align: center;">Disi-Mudawarra to Amman Water Conveyance System</p> <p style="text-align: center;">Environmental and Social Assessment (ESA)</p> <p style="text-align: center;">Draft ESA Consultation Session</p> <p style="text-align: right;">Consolidated Consultants Engineering & Environment</p> <p>14/12/2003</p>	<p style="text-align: center;">Outline</p> <ul style="list-style-type: none"> ➤ Objectives of Consultation Session ➤ Objectives & Description of the Project ➤ Environmental & Social Assessment Process ➤ Jordan's Policy & Legal Framework ➤ World Bank Operational Policies ➤ Results of Public Consultation Sessions ➤ Water Sector Assessment ➤ Project Specific Environmental & Social Assessment <p>14/12/2003</p> <p style="text-align: right;">2</p>
<p style="text-align: center;">Objectives of Public Consultation Session</p> <ul style="list-style-type: none"> ➤ To present to project-affected groups the findings of the Water Sector ESA and the Project Specific ESA ➤ To provide the consulted groups with the relevant ESA material ➤ To inform the public that the ESA study will be made available at a public place accessible to project-affected groups & local non-governmental organizations (NGOs) <p>14/12/2003</p> <p style="text-align: right;">4</p>	<p style="text-align: center;">Project Objectives</p> <ul style="list-style-type: none"> ➤ To supply additional high quality water to Greater Amman from the deep fossil Disi Aquifer in southern Jordan ➤ To reduce groundwater abstractions in Greater Amman region & allow partial restoration of renewable resources in this region ➤ To provide 5 emergency turn-outs from the conveyance pipeline to make available a reliable supply of water to urban areas along the pipeline under emergency conditions & for short durations <p>14/12/2003</p> <p style="text-align: right;">4</p>
<p style="text-align: center;">Need for the ESA</p> <ul style="list-style-type: none"> ➤ Jordanian Government Requirement <ul style="list-style-type: none"> ■ Compliance with national regulations ■ Informing decision makers of the environmental & social risks associated with the project ➤ World Bank (WB) Requirement <ul style="list-style-type: none"> ■ Environmentally & socially sound & sustainable ➤ Transparency & public participation in the decision making process <p>14/12/2003</p> <p style="text-align: right;">5</p>	<p style="text-align: center;">Objective of the Assignment</p> <ul style="list-style-type: none"> ➤ Main objectives of the ESA are to: <ul style="list-style-type: none"> ■ Identify & recommend actions to avoid &/or mitigate potential adverse environmental & social impacts that will be integrated into Project design, construction & operation ■ Conduct a formal process of public participation & consultation, including public information meetings & consultation on the scope of the work for the ESA, & timely disclosure of draft & final ESA reports <p>14/12/2003</p> <p style="text-align: right;">6</p>

<h3>Extended Area of Influence</h3> <ul style="list-style-type: none"> ➤ Main zone of populations benefiting from & affected by the project <ul style="list-style-type: none"> ▪ Greater Amman region ▪ Urban Areas along the pipeline corridor & the natural habitat areas along the pipeline route ➤ Areas Affected by the water & irrigation policy & framework of Jordan <ul style="list-style-type: none"> ▪ This covers surface & ground water users within Jordan <p>14/12/2003 7</p>	<h3>Significant Issues for Water Resources</h3> <ul style="list-style-type: none"> ➤ Justification of project need ➤ Contribution of the Disi project to Jordan's water budget & other alternatives considered for facing the water shortage problem <p>14/12/2003 8</p>
<h3>Significant Issues for Social Component</h3> <ul style="list-style-type: none"> ➤ Allocation of percentage of required labour for local residents alongside the pipeline & in Disi ➤ Public health & safety considerations during construction phase ➤ Launching public awareness campaign explaining the benefits of the project before & during work ➤ Compensation for damage incurred to commercial institutions (especially at Qatraneh, Al-Jiza, & Abu Alanda) <p>14/12/2003 9</p>	<h3>Significant Issues for Social Component (contd.)</h3> <ul style="list-style-type: none"> ➤ Studying available services (especially high voltage lines & tower bases) & obstacles at the path of the pipeline before offering tender for the project ➤ Keeping away from cross-roads as much as possible ➤ Coordination with various service establishments ➤ Public health improvement due to water quality improvement <p>14/12/2003 10</p>
<h3>Significant Issues for Social Component (contd.)</h3> <ul style="list-style-type: none"> ➤ Disruption of traffic movement for residents & large vehicles along Desert Highway & last third of the conveyor route ➤ Indigenous people (Tribes at Badia area) ➤ Coordination with the army in order to identify possible mine areas along route of the conveyor <p>14/12/2003 11</p>	<h3>Overview Water Sector</h3> <ul style="list-style-type: none"> ➤ In trying to meet the country's growing water demand, groundwater aquifers are being exploited at more than double their sustainable yield in average ➤ For a number of years supply has been outstripped by demand in the Greater Amman Area & WAJ has had no option but to implement a water rationing program during summer months <p>14/12/2003 12</p>

<h3>Overview (contd.)</h3> <ul style="list-style-type: none"> ➤ The Disi-Mudawarra to Amman Water Conveyance System will result in a reliable water supply to Amman especially during the summer ➤ However, the Disi project would cover <u>only part of</u> the water shortage problem <u>but would not close</u> the country's growing water gap <p>14/12/2003 13</p>	<h3>Potential Impacts</h3> <ul style="list-style-type: none"> ➤ Direct <ul style="list-style-type: none"> ▪ Supply additional domestic water to Greater Amman Area ▪ Increase per capita share for domestic demand ▪ Relief over exploited aquifers & elevate water table level in relieved aquifers ▪ Reliable water quantity & better water quality will have positive implications on health aspects of the society <p>14/12/2003 14</p>
<h3>Potential Impacts (contd.)</h3> <ul style="list-style-type: none"> ➤ Indirect <ul style="list-style-type: none"> ▪ Reduction in damage to groundwater quality in relief aquifers ▪ Reduction in abstraction will enhance renewable process of Azraq aquifer & associated wetland which in turn would enhance biodiversity at Azraq Oasis ▪ Treated wastewater will be of better quality & of reliable quantity due to characteristics of Disi source & treated wastewater in KTDR will be acceptable for irrigation purposes for most crops planted in Jordan Valley <p>14/12/2003 15</p>	<h3>Socio-Economic Conditions</h3> <ul style="list-style-type: none"> ➤ Traffic Disturbance <ul style="list-style-type: none"> ▪ Increased traffic density & disturbance ▪ Partial &/or total closure of: <ul style="list-style-type: none"> • local road systems • Desert Highway • Railway at several locations ▪ Diverting traffic through temporary access roads or by detours through residential areas & congested areas <p>14/12/2003 16</p>
<h3>Socio-Economic Conditions (contd.)</h3> <ul style="list-style-type: none"> ➤ Effect on Locals & Employees Public Safety: <ul style="list-style-type: none"> ▪ Car accidents & Vehicular-pedestrian conflicts ▪ Deep excavations close to residential areas & open trenches in Abu Alanda, Aljiza & Qatranah areas ▪ Stored materials including fuel & other chemicals ▪ Ignorance & non compliance with the construction workers safety requirements ▪ Movement & operation of heavy equipments within construction corridor of Desert Highway - Rum-Disi road <p>14/12/2003 17</p>	<h3>Socio-Economic Conditions (contd.)</h3> <ul style="list-style-type: none"> ➤ Infrastructure Utilities & Social Disturbances <ul style="list-style-type: none"> ▪ The proposed pipe route crosses & passes close to a large number of utilities/facilities that serves residential areas ▪ Many utilities are anticipated to impose specific constrains on the work design & execution. <p>14/12/2003 18</p>

Socio-Economic Conditions (contd.)

- Disturbance to local societies :
 - Pipeline trench (4m by 4m) might be hazardous to pedestrians particularly children
 - Disturbance to water supply & wastewater services
 - Disturbance to power supply especially
 - Business disruption

14/12/2003

19

Archaeological & Cultural Heritage Sites

- Direct threat of damage to:
 - Area of Cave of Seven Sleepers
 - Cave of the Seven Sleepers
 - Mausoleum
- Indirect impacts or accidents might affect:
 - Al - Qatraneh Castle
 - Press
 - Al - Juwayda Mausoleum
 - Al- Qastal; Al - Jiza Pool
 - The Byzantine Church

14/12/2003

20

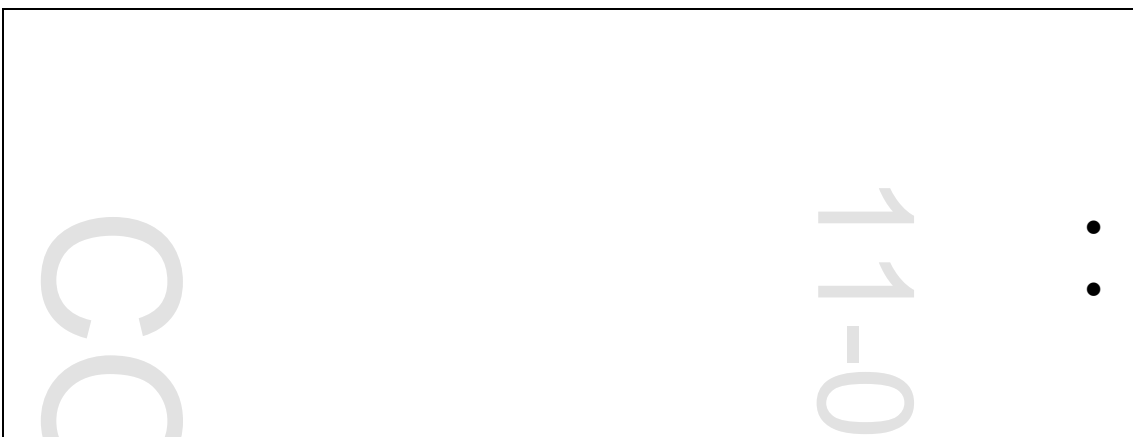
5.2 Arabic Handout

	<p>...</p> <p>11-09-2014 10:11:40 AM</p> <p>gmnetin@ifc.org</p> <p>GIT</p>	<p>...</p>	<p>...</p>
--	--	------------	------------

•	• • •	• • • • •	• • • • •
	11-09-2014 10:11:40 AM		
	/ gmetin@ifc.org		
•	•		
	GIT		
CONFIDENTIAL			

...
11-09-2014 10:11:40 A		
)))
gnnetin@ifc.org		
GIT		
()	()	()
CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL

<div>•••••</div>	<div>•••••</div>	<div>•••••</div>
------------------	------------------	------------------



6 LIST OF PARTICIPANTS

6.1 List of Participants at Abu Alanda Consultation Session

Table 3: List of participants at Abu Alanda consultation session

No.	Name	Profession
1	Atef Al-Hneiti	Greater Amman Municipality
2	Hamad Al-Hneiti	Greater Amman Municipality
3	Mahmoud Al-Zoubi	Greater Amman Municipality
4	Faten Al-Shawabkeh	Typist
5	Fayez Mahmoud	Receptionist
6	Mohammad Zayyan	Typist at Directorate of El-Quesmeh, Juwaida, Abu Alanda and Ruqaim/ Greater Amman Municipality Greater Amman Municipality
7	Firas Al-Badawi	Typist
8	Ibrahim Oudeh	Draftsman
9	Eyad Hilal Al-Hneiti	Engineer at Directorate of El-Quesmeh, Juwaida, Abu Alanda and Ruqaim/ Greater Amman Municipality Greater Amman Municipality
10	Ahmad Oudeh Al-Rakkad	Typist
11	Karim Abdullah	Typist at Directorate of El-Quesmeh, Juwaida, Abu Alanda and Ruqaim/ Greater Amman Municipality Greater Amman Municipality
12	Daoud Al-Badawi	Government employee
13	Ziyad Al-Nimmer	Head of Dept. at Directorate of El-Quesmeh, Juwaida, Abu Alanda and Ruqaim/ Greater Amman Municipality
14	Dr. Aawad Al-Rawashdeh	Resident of Abu Alanda
15	Fares Al-Bann	Government employee
16	Mahmoud Hussein	Government employee
17	Hussein Abedullah Saleh	Government employee
18	Mohammad Khaled Al-Haddid	Public Notary
19	Amer Al-Raboubi	Typist
20	Fadiya Riyad Salem	Government employee
21	Randa Al-Shawbaki	Data Entry
22	Nariman Ali Al-Qahyawi	Typist
23	Nadiya Faleh Al-Shawabki	Government employee
24	Mohammad Al-Shakhbteh	Government employee
25	Talaat Mahmoud	Office Boy
26	Omar Mohammad	Office Boy
27	Assem Abed Rahman	Accountant
28	Lutfy Al-Dasoqi	General Manager of Al-Gowhra Factory
29	Aby Yasser Al-Huneiti	Manager of Ammar Institution for retail
30	Hassan Mohammad Said	Inspector
31	Mona Al-Ramini	Engineer
32	Abdullah Salem Al-Hneiti	Farmer
33	Mahmoud Hishmeh	Consultant
34	Darwish Hassan Al-Hawari	Teacher
35	Mohammad Abed Al-Mneam Mansour	Trader
36	Aazmi Abu Qasem	Engineer
37	Mohammad Raqqad	Employee
38	Mefleh Al-Dabousi	Employee
39	Salwa Al-Qatatsheh	Accountant
Sub-Total:		39
Consultants and MWI Representative		
40	Eng. Sultan Mashakbeh	Ministry of Water and Irrigation
41	Dr. Sawsan Himmo	Consolidated Consultants
42	AbdRahman Jaber	Consolidated Consultants
43	Lama El-Awad	Consolidated Consultants
44	Majdi Salame	Consolidated Consultants
45	Rola Quba'a	Consolidated Consultants
Total:		45

6.2 List of Participants at Amman Consultation Session

Table 4: List of participants at Amman consultation session

No.	Name	Profession
1	Nazir Abu-Arqoub	Ministry of Water and Irrigation (MWI)
2	Jamal Kawasmeh	Ministry of Water and Irrigation (MWI)
3	Fayez Bataineh	Ministry of Water and Irrigation (MWI)
4	Sultan Mahsabkeh	Ministry of Water and Irrigation
5	Saleh Malkawi	Water Authority of Jordan (WAJ)
6	Falah Ibrahim Salah	Ministry of Agriculture
7	Dr. Wael Sartawi	Ministry of Agriculture
8	Khaled Al-Kodah	Water Authority of Jordan (WAJ)
9	Nawal Sunna'	Water Authority of Jordan (WAJ)
10	Jehad Abu-Jamous	Water Authority of Jordan (WAJ)
11	Zakaria Tarawneh	Water Authority of Jordan (WAJ)
12	Mohammad Adily	Water Authority of Jordan (WAJ)
13	Wafa Haddadin	Ministry of Public Works and Housing (MPWH)
14	Sami Halasa	Ministry of Public Works and Housing (MPWH)/Director
15	Eng. Rawan Al-Moubark	Ministry of Public Works and Housing (MPWH)
16	Maha Al- Zubi	Ministry of Planning
17	Eng. Saleh Nemrawy	Ministry of Health
18	Bassam Natsheh	Ministry of Health
19	Khalil Helalat	Ministry of Social Development
20	Eng. Naim Al-Saud	Ministry of Environment
21	Sabri Khassib	Amman Chamber of Commerce
22	Odeh Alkhalayleh	Public Security Directorate
23	Hasan Abdel-Hameed	National Electric Power Company
24	Khaled Dabas	Civil Defence
25	Ahmad Al-Momani	Civil Defence
26	Dr. Adnan Al-Salihi	University of Jordan
27	Mohammad Waheeb	Hussein University
28	Dr. Amal Hijazi	USAID
29	Hivoyuki Hagiwara	Japan International Cooperation Agency (JICA)
30	Ryurichi Fukuhara	Japan International Cooperation Agency (JICA)
31	Eng. Fida'a Jibril	Royal Scientific Society
32	Eng. Rana Abu-Saade	Jordan Environment Society
33	Abdalla Abu Ata	Jordanian Family Planning Association
34	Mohammad Ataw	Madaba
35	Akram Massarweh	National Society for Preservation of the Heritage of Madaba and its Suburbs
36	Ibrahim Al-Hassan	Alwafa Company
37	Ayman Kamal Sabri	The Arabic International Company for Agricultural Development
38	Ibrahim Al-Khader	Envirotech
39	Philippe Odivere	LEMA company
40	Bashar Al-Ali	Jordan Forum-WEPIA
41	Amjad Barghouti	ACES-Private Consulting Firm
42	Hisham M. Qattan	News
43	Dr. M.J. Juneidi	News
Sub-Total:		43
Consultants and WMI Representatives		
44	Dr. Sawsan Himmo	Consolidated Consultants
45	AbdRahman Jaber	Consolidated Consultants
46	Lama El-Awad	Consolidated Consultants
47	Majdi Salame	Consolidated Consultants
48	Rola Quba'a	Consolidated Consultants
Total:		48

6.3 List of Participants at Aqaba Consultation Session

Table 5: List of participants at Aqaba consultation session

No.	Name	Profession
1	Nazir Abu-Arqoub	Ministry of Water and Irrigation (MWI)
2	Fayez Bataineh	Ministry of Water and Irrigation (MWI)
3	Jehad Sagarat	Water Authority of Jordan (WAJ)
4	Malek Y. Al-Rawashdeh	Water Authority of Jordan (WAJ)
5	Khaled Abu-Reeshah	Aqaba Special Economic Zone (ASEZA)
6	Khaled Al-Sahni	Aqaba Special Economic Zone (ASEZA)
7	Samar Malkawi	Aqaba Special Economic Zone (ASEZA)
8	Abdulla Ghutheen	Aqaba Special Economic Zone (ASEZA)
9	Mohammad Al-Azab	Aqaba Special Economic Zone (ASEZA)
10	Mazen Haobsha	Aqaba Special Economic Zone (ASEZA)
11	Dr. Farouk Irsan	Aqaba Special Economic Zone (ASEZA)
12	Dr. Bilal Al-Basheer	Aqaba Special Economic Zone (ASEZA)
13	Eng. Ali Nimr Ibrahim	Aqaba Special Economic Zone (ASEZA)
14	Eng. Ibrahim Al-Nawafleh	Aqaba Water Authority
15	Eng. Bilal Al-Asi	Aqaba Water Authority
16	Mamdouh Yousef Al-Fageer	Tafilah Governorate
17	Salam Naser Al-Zawaydeh	Representative of Disi area
18	Atallah Al-Zawaydeh	Representative of Disi area
19	Mohamad Mattar Al-Zaydanieh	Disi District
20	Eng. Said Abu-Al'ara	Disi Municipality
21	Awwad Mutawa' Al-Nueimat	Al-Jafar Municipality
22	Eng. Walid Al-Deikh	Ma'an Water Authority
23	Mahmoud Al-Budour	Rum Natural Reserve
24	Ahmad Ali Al-Hilalat	Regional Affairs Surveyor
25	Eng. Omar Bashir Al-Lahham	Disi Agricultural Office
26	Mouna Toukan	Jordan Environment Society-Aqaba
27	Dr. Saleh Fayez Al-Sharari	Al-Hussein Bin Tala University
Sub-Total:		27
Consultants and WMI Representatives		
28	Dr. Sawsan Himmo	Consolidated Consultants
29	Majdi Salameh	Consolidated Consultants
30	Rola Quba'a	Consolidated Consultants
31	Husam Al-Huwari	Consolidated Consultants
Total:		31