



REPORT OF THE UNEP ROUNDTABLE ON IRAQI MARSHLAND MANAGEMENT

*21 - 22 September 2004
Amman, Jordan*

UNITED NATIONS ENVIRONMENT PROGRAMME

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Report of the UNEP Roundtable on Iraqi Marshland Management

*21 –22 September 2004
Le Meridien Hotel, Amman, Jordan*



UNEP

Division of Technology, Industry and Economics

**International Environmental
Technology Centre**

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Roundtable Background

The Amman Roundtable on Iraqi Marshland Management was organized by the United Nations Environment Programme (UNEP) on 21 and 22 September 2004 in Amman, Jordan. The Roundtable was one of the initial activities for UNEP's "Support for Environmental Management of the Iraqi Marshlands" project, which is being implemented within the framework of the United Nations Trust Fund for Iraqi Reconstruction. Dialogue during the project preparation process, with the Iraqi counterparts, UN agencies within the UN Trust Fund mechanism, and donor agencies, identified a clear need to discuss various on-going initiatives and to facilitate coordinated response for marshland management. UNEP was requested to organize a meeting to address this need.

The objectives of the Roundtable included the following:

- To present the UNEP project titled "Support for Environmental Management of the Iraqi Marshlands" and discuss its implementation plans with various stakeholders
- To provide a platform for exchange information on marshland management among local, national, and international partners
- To examine the current status of marshland management and various United Nations initiatives that support marshland management, and to identify areas for cooperation

The Roundtable was organized over two days. Sessions on Day 1 provided a platform to discuss the UNEP project, and to analyze the current status of various initiatives taking place in and for the Marshlands, both environmental and otherwise. At the beginning of the session, commitments and dedications of the Government of Iraq, Japan, and Jordan, as well as of other concerned United Nation members to the Iraqi Reconstruction were renewed and articulated. The meeting served as a channel between each involved stakeholder to highlight crosscutting issues that are inherent to the management of the marshlands and present them together with different initiatives that are ongoing and were undertaken by a number of international organizations and local counterparts. Developing a baseline for scientific knowledge to guide operational action planning, building Iraq's institutional and technical capacity, as well as inspiring regional dialogue and cooperation were some of the identified key issues for the project.

Some outputs that the project are expected to produce were also presented. These included, among other envisaged results, quick relief to the area's water and sanitation problems through pilot project implementations, establishment of Project Implementation Unit (PIU) within the Iraqi Ministry of Environment to support the overall marshland management, satellite-based monitoring and reporting system, setting up of the Marshland Information Network (MIN), Arabic and English training materials, cadre of trained decision makers, experts, and community leaders with up-to-date knowledge and field experiences, and employment opportunities for both professional and community tasks.

Moreover, the session conveyed the need for the Government of Iraq to establish in-house coordination and donor-government coordination mechanisms amongst the various ministries involved. Possible links and areas of coordination with several bilateral institutions active in the marshlands were also identified in addition to each organization's accomplishments and gathered information that could be valuable to the project. The day concluded with the verification of the needs for a common vision, socio-cultural links, data and information management, comprehensive capacity building, people's ownership, and policy support.

Day 2 focused on the project implementation plan from the thematic and institutional perspectives. The session on thematic structures presented the project's main activity components, which included the implementation of environmentally sound technologies (ESTs) on a pilot scale, capacity building of Iraqi professionals and policy makers, data collection and baseline analysis, and awareness raising on marshland management and issues. Within the institutional structure of the project implementation, UNOPS capacity and roles in the project were presented in back to back with UNEP's side and the PIU's essential tasks. The first half of the second day ended realizing the importance of coordination, data management and information network system, capacity building, and the existence of focal points to achieve the goals of the project.

Following the close of the Roundtable, two working group sessions were held in the afternoon of Day 2 to discuss and refine the plans for training and pilot implementation and for information management. The working group on EST Pilot Implementation and Capacity Building mainly discussed the main criteria for pilot site identification and the specifics of each component involved. The session brushed up the project strategies, and identified possible partners and collaborations inside and outside of Iraq. The parallel working group on data collection and baseline analysis focused on the most practical means to set up the information management system for the marshland project. Participants were particularly enlightened of the details and features of the MIN, in addition to the various supports, capacity building, infrastructure that are lined up in the project component.

The participants for the Roundtable included Ministers of Environment from Iraq, Japan, and Jordan as well as the Executive Director of UNEP. In addition, representatives from Iraqi authorities at the national, governorate, and local levels, UN agencies from relevant clusters within the UN Iraq Trust Fund mechanism, bilateral agencies, and other stakeholders also participated.

UNEP Project on Support for Environmental Management of the Iraqi Marshlands

The development goal of the UNEP project is to support the sustainable management and restoration of the Iraqi Marshlands, with the following immediate objectives:

To monitor and assess baseline characteristics of the marshland conditions, to provide objective and up-to-date information, and to disseminate tools needed for assessment and management

To build capacity of Iraqi decision makers and community representatives on aspects of marshland management, including: policy and institutional aspects, technical subjects, and analytical tools

To identify environmentally sound technology (EST) options that are suitable for immediate provision of drinking water and sanitation, as well as wetland management, and to implement them on a pilot basis

To identify needs for additional strategy formulation and coordination for the development of longer term marshland management plan, based on pilot results and cross-sectoral dialogue

The project is expected to raise the basic capacity in technical and policy aspects of water quality and wetland management. Utilizing such expertise, suitable EST options will be identified and implemented on a pilot basis to meet the urgent need for water and sanitation in a number of marshland communities. Based on these activities, a strategy for wider application of technical options for marshland management is to be developed. The strategy, as well as expertise and knowledge, provide valuable input for the eventual development of a master plan for the Iraqi Marshland, and its subsequent implementation by domestic institutions.

This project is implemented by the International Environmental Technology Centre (IETC) of UNEP, within the Division of Technology, Industry, and Economics (DTIE). Funding for this project has been provided by the Government of Japan, through the UN Iraq Trust Fund.

Meeting Agenda

Day 1

Schedule	Session Description
8:30 – 9:30	<i>Welcome and Keynote Remarks</i> Chair: Dr. Klaus Töpfer, Executive Director, UNEP Mrs. Monique Barbut, Director, UNEP DTIE Dr. Mishkat Al Moumin, Minister of Environment, Iraq Dr. John Pace, Officer-in-Charge, UN Assistance Mission for Iraq Ms. Yuriko Koike, Minister of Environment, Japan Dr. Alia Hattough-Bouran, Minister of Tourism and Antiques and Minister of Environment, Jordan
9:30 – 10:15	<i>Role of UNEP in Environmental Assistance for Iraq</i>
30 minutes	Dr. Klaus Töpfer, Executive Director, UNEP
15 minutes	Mr. Pekka Haavisto, Chairman, UNEP Post Conflict Assessment Unit
10:15 – 10:45	<i>Coffee break</i>
10:45 – 12:00	<i>Presentation and Discussion: UNEP Marshland Project Overview</i>
presentation: 20 minutes each	The UNEP project for Support for Environmental Management of the Iraqi Marshlands is presented, including its goals, objectives, and activities. Discussions will follow.
discussion: 35 minutes	Chair: Mrs. Monique Barbut, Director, UNEP DTIE Dr. Chizuru Aoki, Project Coordinator, UNEP Prof. Muthanna A. Wahab Al-Omar, Ministry of Environment, Iraq
12:00 – 13:30	<i>Lunch (La Brasserie Restaurant)</i>

Schedule	<i>Session Description</i>
13:30 – 15:00	<i>Presentation and Discussion: Marshland Initiatives Supported by United Nations</i>
Chair’s remark: 10 minutes	Representatives of UN agencies are invited to discuss current activities on various aspects of marshland management supported by the UN Iraq Trust Fund, and articulate areas of potential linkage with the UNEP project. Discussions will follow.
presentation: 10 minutes each	Chair: Mr. Seifeldin Abarro, UN Iraq Trust Fund
discussion: 30 minutes	Chair’s Introductory Remark: UN Trust Fund Support for Marshland Activities Health (cluster 2): Dr. Naeema Al-Gasseer, WHO Water and Sanitation (cluster 3): Dr. William Fellows, UNICEF Agriculture, Water Resources and Environment (cluster 5): Task Manager of Cluster 5 Displaced Persons (cluster 8): Mr. Abdi-Aziz Osman, UNHCR Iraq Operations Unit in Amman Human Development (cluster 10): Ms. Alia Al-Dalli, UNDP
15:00 – 15:30	<i>Tea break</i>
15:30 – 16:30	<i>Presentation and Discussion: Marshland Initiatives Supported by Bilateral Institutions</i>
Chair’s remark:	Chair: Mrs. Monique Barbut, UNEP
presentation: 10 minutes	Chair’s Introductory Remark: Bilateral Support for Marshland Activities Canada: Mr. Clay Rubec, Canada-Iraq Marshlands Initiative
discussion: 20 minutes	Italy: Dr. Augusto Pretner, Ministry for the Environment and Territory US: Dr. Peter Reiss, USAID Iraq Marshlands Restoration Programme
16:30 – 17:30	<i>Discussion: Moving towards Coordinated UN Action for Marshlands</i>
	Co-Chairs: Dr. Klaus Töpfer and Dr. Mishkat Al Moumin
	Building on today’s sessions, areas of potential collaboration and linkage to the UNEP initiative are further discussed. In addition, recommendations on the role of UN agencies for marshland management, and priority areas of further support for the UN agencies are articulated. Ways to strengthen linkage with bilateral projects will also be explored.
17:30 – 19:30	<i>Reception (Cosmo Restaurant)</i>

Day 2:

Schedule	Session Description
9:00 – 10:30	<i>Session on Project Implementation: Thematic Structure</i>
presentation: 15 minutes each	Implementation plans of main project activity components will be presented, followed by discussions.
discussion: 45 minutes	Chair: Mrs. Monique Barbut, UNEP EST pilot implementation: Dr. Vicente Santiago, UNEP Capacity building: Dr. Vicente Santiago, UNEP Data collection and baseline analysis: Mr. Robert Rodriguez, UNEP
10:30 – 11:00	<i>Coffee break</i>
11:00 – 12:30	<i>Session on Project Implementation: Institutional Structure</i>
	Presentations will focus on the institutional aspects of project implementation, followed by discussions.
presentation: 15 minutes each	Overall implementation structure: Mr. Chakib Belhassan, UNOPS, and Dr. Chizuru Aoki, UNEP
discussion: 45 minutes	National-Local implementation structure: National Project Coordinator, Ministry of Environment, or Governorate representative Evolution of marshland management structure: Representative, Centre for Restoration of Iraqi Marshlands
12:30 – 13:00	<i>Summary and Closing Remarks</i>
	Mrs. Monique Barbut, Director, UNEP DTIE Dr. Mishkat Al Moumin, Minister of Environment, Iraq
13:00 – 14:30	<i>Lunch (La Brasserie Restaurant)</i>

Afternoon Working Groups:

Afternoon working groups are organized into three tracks, following the main components of the UNEP project. Each session will begin with a presentation of proposed activities. Discussions among participants will follow, to gain better understanding of the implementation plan, to affirm collaboration with existing partners, to build potential linkages with on-going activities.

Session 1: Data collection and baseline analysis (chair: Mr. Robert Rodriguez)

Session 2: EST pilot implementation and capacity building (chair: Dr. Vicente Santiago)

Roundtable Summary

Agenda Item 1

Welcome and Keynote Remarks

Dr. Klaus Töpfer, Executive Director of UNEP, welcomed the participants and expressed his gratitude to the presence of concerned UN agencies, and distinguished officials from the governments of Iraq, Jordan, and Japan. He particularly acknowledged the Government of Japan for its dedication, knowledge and support of the Iraqi Marshland Project, as well as to the Iraqi Ministry of Environment for showing its interest in the marshland environmental management, and to the Jordanian government for its cooperation in organizing the meeting.

He emphasized that the presence of other UN members signifies that the UN system entities as such are in the spirit of cooperation rather than of competition, and that it is an integrated and not a disconnected system.

Mrs. Monique Barbut, the Director of UNEP Division of Technology, Industry and Economics (DTIE), was recognized for her role in the overall development of the International Environmental Technology Centre (IETC), which is the implementing agency for the Marshland project. He also thanked the IETC staff members. He stated that IETC has accumulated up-to-date knowledge on environmentally sound technologies, networks of cooperation, and experience, all of which are known for producing significant contributions in Japan and the rest of the world.



The members of the opening session consisting of the Ministers of Environment of Iraq, Japan and Jordan, and representatives from UNEP and UNAMI

He underlined that the UNEP Iraqi Marshland Project should be founded on the application of appropriate environmental technologies, proven knowledge and shared experience, and robust cooperation. In this regard, he expressed his positive belief that the meeting would lead to lasting success as the initial step to bring back the Iraqi marshlands to its people.

Her Excellency Dr. Mishkat Al Moumin, Minister of Environment of Iraq, presented the current situation of the Iraqi Marshlands and its people by posing a question, “How would you think if you woke up suddenly and the famous pyramids and the beautiful Venice were not there?” She stressed on the loss of lives and civilization of the Marsh Arabs, as the marshlands were deliberately destroyed.

She recognized the purposes of the meeting and committed herself and her ministry to the overarching goals of the Iraqi Marshlands Project, parallel to the mission of the Ministry of Environment of Iraq, which is to make a flourishing environment for Iraqi people. She also clarified that marshland rehabilitation does not only mean re-flooding of the area but also a comprehensive programme that covers all aspects of life. Lastly, she expressed her expectations for a common platform in order to achieve the aims of the project.

Her Excellency Ms. Yuriko Koike, Minister of Environment of Japan, expressed her appreciation to UNEP, the Jordanian government, and Iraqi government and to all the participants. She stated that reconstructing Iraq is not only important to the stability of the

world but also to Japan. Japan had been able to rebuild itself from the World War II destruction through the assistance of various countries, in addition to the determination and efforts of its people. This experience has made Japan determined to assist the people of Iraq in restoring their society to one where people can live with security and peace of mind. She underlined that it is important to pursue the process of nation building in terms of sustainable development, in which economic, social and environmental aspects are all considered in a balanced way.



Ms. Yuriko Koike, Minister of Environment of Japan, and Dr. Klaus Töpfer, the UNEP Executive Director

She stated that UNEP would be utilizing a portion of US\$490 million that Japan contributed to the International Reconstruction Fund Facility for Iraq. The contribution to UNEP is part of Japan's US\$1.5 billion-grant assistance package to Iraq, announced in October 2003. In particular, Japan is supporting two UNEP projects: (1) Support for the Environmental Management of the Iraqi Southern Marshlands, and (2) Capacity Building of the newly created Iraqi Ministry of Environment.

She pointed out that the marshland conservation is not a simple environmental challenge, as it is also related to a wide range of issues such as water demand coordination within Iraq and its neighboring countries, waste accumulation and disposal, as well as dealing with displaced population in the aftermath of anthropogenic degradation of the Marshlands. The Marshland issues are also crosscutting ones that involve environmental conservation, agriculture, fisheries and lives of the local people. These are issues that convey to the people around the world the necessity of conserving the environment of Iraq. Furthermore, she mentioned that it is crucial for the people of Iraq to discuss the future of the marshlands and to have a common vision for its restoration. Iraq in this attempt will not be alone, as the international community is ready to provide information and the needed technological support in order to enable this process to progress smoothly.

Minister Koike recognized IETC's knowledge and its significant achievement in the field of water and sanitation, specifically in the development and promotion of environmentally sustainable technologies. Such knowledge has also contributed to the conservation and development of Lake Biwa in Japan. She reiterated and guaranteed that the Japanese government would actively cooperate with IETC activities to the greatest extent possible, especially with regard to the Iraqi Marshlands project.

She also introduced other activities of the Japanese government related to Iraq, particularly of the Ministry of Environment such as: (1) the establishment of a panel of experts on February 2004 to discuss long-term environmental assistance for Iraq, (2) the March 2004 Japan-Arab Environmental Ministers' Seminar, which focused on adding environment as a new topic to improve the Japan - Arab Region relationship, and (3) the Environmental Assistance and Training Programmes on Environmental Monitoring in Jordan and Egypt. She emphasized that while Japan differs in many ways from the Arab world, it has the technologies, the experience of combating water pollution and waste problems, and of undertaking nature conservation. Hence, Japan reaffirmed its continuous support to the Arab countries in various ways that complement the efforts and cooperation of the international community.

She recognized other needs of the Iraqi Ministry of Environment such as: (1) increasing its existing capacity to introduce solutions to other issues, including the management of solid and chemical wastes, nature conservation, and monitoring of water quality, and (2) developing concrete policies, under the leadership of the Iraqi Minister of Environment that address urgent and emerging issues of the society.

She expressed her hopes for the success of the Roundtable meeting in bringing together concerned countries, international organizations, and stakeholders to work in a spirit of strengthened partnership and collaboration to reverse the condition of the marshlands and to bring back the life of its people. She expressed her hope that the success of the project will not only serve as a proof of goodwill between Japan and Iraq but also open new possibilities between Japan and UNEP.

Dr. John Pace, Officer-in-Charge for the United Nations Assistance Mission for Iraq (UNAMI), welcomed everyone on behalf of the UNAMI. He explained the mandate of UNAMI as set out by the UN Security Council, which is to contribute to the coordination and delivery of reconstruction development and humanitarian assistance for Iraq. To realize this mandate, a strategic plan for the reconstruction of Iraq in coordination with the Iraqi government and non-government partners was established. It facilitates the delivery of support and assistance required in the reconstruction process, and produces numerous projects that cover sectors such as water and sanitation, health, education, and housing. It also aims to assist the people of Iraq to realize their basic human rights. In the same spirit, two funds were established to enable donor countries to channel their contributions and to underline the delivery of these projects. He acknowledged the contributions of the donor countries for reflecting the same spirit of international cooperation and collaboration in using the funds.



Representative of UN Assistance Mission for Iraq (UNAMI)

He stated that the UNEP Iraqi Marshlands project has two characteristics:

- (1) It fills a gap - The Marsh Arabs' experiences epitomize the suffering of the people of Iraq. The Japanese contribution, which enables the restoration, and rehabilitation of the Marshlands and habitat for the Marsh Arabs, sends a message to the international community of the desirability of an integrated and interrelated approach to the challenge that the rebuilding of Iraq faces. This further strengthens the range of international support available for Iraq as country teams share an integrated approach focusing on services that are urgently needed such as water and sanitation, housing, health and education, and human rights;
- (2) It is a people's project - In addition to the Marsh Arabs, the project includes the surrounding population in order not to create an impression that they are once again being excluded. While the involvement of people is not an easy task, they should be brought in and be engaged as stakeholders in the programme.

He also identified sustainability and security issues, as well as crimes in the marshlands as some of the enormous challenges to be faced by the project. The resort to violence has compounded the plight of the country and has made the task even more challenging. In this reality, Iraqis are frustrated and angry as a result of sporadic efforts addressed in their direction, for their situation remains desperate, as it has been for so many years.

Dr. Pace stated that the project is a courageous one for what it addresses and what it represents. The project should be welcomed with full support from all levels with firm determination to make it a success, as a precursor to other projects in the environmental sector.

Her Excellency, Dr. Alia Hattough-Bouran, Jordanian Minister of Tourism and Antiquities and Minister of Environment, welcomed all the participants, and thanked UNEP and the Japanese government for the commitment and dedication to the Arab region. She expressed the commitment of the Jordanian government in supporting Iraq in all fronts, particularly for the reconstruction and rehabilitation of the Marshlands. She said that with the existing capacities and experiences of Jordan in wetland reconstruction and degraded ecosystem protection, it would continue close cooperation and coordination with the Ministry of Environment of Iraq.

She also stressed that Iraq needs friends, brothers and neighbors who are fully dedicated and committed to offer assistance. Within the Marshland project implementation and support, it is crucial to consider the people as well as the environment. She concluded by expressing her hopes for the successful deliberations of the roundtable meeting, conclusions of which she would relay to the next assembly of the Council of Arab Ministers of Environment in Cairo, Egypt.

Agenda Item 2

Role of UNEP in Environmental Assistance for Iraq

Dr. Klaus Töpfer presented UNEP's environmental activities and its related endeavors to rebuild Iraq. He mentioned some of UNEP's projects, such as the Global Environment Outlook (GEO) that identifies emerging issues in the environmental arena, and environmental conventions, such as the Convention on Biological Diversity (CBD), the Basel Convention, the Persistent Organic Pollutants (POP) Convention, the Regional Seas Convention, and the Convention on Climate Change.

He emphasized that it is crucial to bring Iraq back as an active partner in these activities and multilateral environmental agreements. He also underlined the importance of producing concrete and strategic approaches to implement the project components effectively and efficiently.

He placed importance on the assessment and instruments, which are continually undertaken by UNEP in order to integrate environment components in all kinds of post-conflict assessments. Consequences of war, which are prolonged by resulting environmental problems, must be systematically assessed with tangible priority actions, lest community suffers more and be highly vulnerable to risks involved. To realize this, the spirit of working together must be intrinsic in every action. Dr. Töpfer expressed his hopes to finalize the Strategic Plan on Capacity Building and Technical Support by the next UNEP Governing Council Meeting on February 2005.

He concluded his presentation by recognizing IETC's capacity and its qualifications as the centre for environmental technology transfer and being well equipped to implement the project. Key premises of the project are cooperation and integration, partnerships and linkages, and shared knowledge and information.

Mr. Pekka Haavisto, Chairman, Post-Conflict Assessment Unit (PCAU) of UNEP Division on Environmental Policy Implementation (DEPI), presented specific activities on

Iraq undertaken by UNEP to date. The presentation included: (1) UNEP studies on Iraq, (2) Chronic and conflict-related environmental problems, (3) UNEP activities in Iraq, (4) Contaminated sites, and (5) Mesopotamian Marshes. Some of the previous UNEP studies on Iraq include its post-conflict assessment in 1991, study on Mesopotamian Marshlands in 2001, and GEO Reports 1997, 2000, and 2002. Recent publications include a desk study on the environment in Iraq.

Among some of the chronic environmental problems he identified were: (a) contaminated water resources aggravated by poor distribution and mismanagement, (b) human health threats by unmanaged hazardous, clinical, municipal and military wastes, (c) potential air, water, and soil pollution from industrial sites and oil refineries, and (d) ecosystem degradation including Mesopotamian Marshlands, desertification and deforestations threatening human livelihoods. He also highlighted problems that are conflict-related, which included: (a) contamination at chemical weapons attack sites and destruction of oil infrastructure, during the Iran-Iraq War (1980-1988); (b) bombing of industrial, nuclear and military sites, use of depleted uranium, oil well fires and military infrastructure, during the Gulf War (1991); and (c) oil well fires and oil contamination, targeting of industrial and military sites, wide-scale looting and dumping of chemicals, use of depleted uranium, during the Iraq War 2003. He emphasized that environmental issues are not always related to post-conflict issues, and could also be related to lack of resources and poor environmental regulations of countries like Iraq.

Mr. Haavisto continued his presentation by outlining some of the past and on-going activities in which UNEP has endeavored to include and address environmental concerns:

- (1) UNDG Needs Assessment in which UNEP is responsible for the environmental crosscutting theme
- (2) Madrid Donor Conference in October 2003 where UNEP provided the most recent information on Iraq's situation
- (3) Six Iraqi Roundtables held in Geneva for 2003-2004
- (4) Support for Environmental Management of the Iraqi Marshlands through DTIE-IETC
- (5) Strengthening Environmental Governance in Iraq through Environmental Assessment and Capacity Building through DEPI-PCAU
- (6) Proposal for Depleted Uranium Assessment.

Other activities in the region include activities of UNEP Regional Office for West Asia (ROWA) in Bahrain, cooperation with Regional Organization for the Protection of the Marine Environment (ROPME) in the Gulf region and facilitation of Iraq's return to ROPME, and facilitation of Iran-Iraq talks on the restoration of the Mesopotamian Marshes. In all the aforementioned activities, UNEP attempts to make in-country and cross-border cooperation and coordination high.

UNEP is currently providing capacity building and training for the Iraqi Ministry of Environment to conduct assessments of most polluted sites, in addition to other complementing activities done by the Iraqi counterparts such as field visits, and laboratory analysis. These activities will be the bases for the clean up and recommendation for remediation to the identified contaminated sites. For the training course, Mr. Haavisto underlined the significance of establishing a link between the Iraqi and the international experts for best possible assessment work. Some of these confirmed contaminated sites and places where further analysis is needed were also identified, as: (1) Al-Mishraq Sulphur State Company, (2) Midland 'Al-Doura' Refinery Company, (3) Al Suwaira Contaminated Seed Store, (4) Country-wide Oil fires and spills area, and (5) Military vehicle stockpiles. He

observed that Iraqi industries are concentrated along the major rivers, with environmental problems that are similar to those experienced in Central and Eastern European countries.

On the UNEP Iraqi Marshland Projects, Mr. Haavisto stated that it is necessary to recognize interlinking issues such as cultural, political, social and agricultural factors, and to take into account the unique lifestyle of the Marsh Arabs. Since the re-flooding of the marshlands has started, some positive effects have been observed. These areas, however, are still faced with the high risks brought by the surrounding landmines, especially those that still remain unsurveyed to date. Moreover, the Marshlands are facing other types of hazards such as bombs, missiles, rockets, and other unknown dangers. At present, only 10% of the marshlands could be described as a functional system, and the Al-Hawizeh/ Al-Azim Marshes are recognized as the last remaining part of the original Mesopotamian Marshes. These areas provide a refuge for biodiversity, act as potential reference marshes for future restoration, and may be eligible for international conservation status.

Mr. Haavisto also presented some disturbances to the marshes by dam construction, such as: (1) major alteration to flows, (2) reduction of water supply to Al-Hawizeh/ Al-Azim, (3) elimination of flood pick, and (4) impacts on water quality. Furthermore, issues on border dykes between neighboring countries such as Iran were mentioned, as well as the existence and crucial role of the Centre for the Restoration of Iraq Marshlands (CRIM) within the Ministry of Water Resources of Iraq.

He concluded by summarizing key issues for the marshland management and restoration project: (1) developing the scientific knowledge base to help guide operational action planning, (2) building national institutional and technical capacity, and (3) catalyzing regional dialogue and cooperation. In this realm of restoration and protection, environment can be a tool for peace and cooperation building.

Discussion on Item 2

Following the two presentations, Dr. Klaus Töpfer welcomed comments and questions to clarify the national needs and expected deliverables from the international community. Discussions included the following points:

Dr. Töpfer stated that the on-going initiatives as constructive actions that are important for Iraq, not only to revive its environment but also to get the country back to CAMRI and other international activities. He also expressed his belief that actions such as the roundtable meeting are win-win situations where needed capacity building can be formed.

Prof. Muthanna A. Wahab Al-Omar of the Iraqi delegation asked about the contaminated sites subject to monitoring. He added another site that is located 60km north of Baghdad, which was used as a weapons disposal site. Toxic chemicals, particularly sodium cyanide, are present in huge volumes. Mr. Haavisto responded that these sites require specific clean up and assessment. Areas such as these have been discussed with the Ministry of Environment of Iraq, and are not excluded. If access and security can be guaranteed, UNEP and other concerned international organizations are ready to work with the Iraqi counterparts. Prof. Wahab Al-Omar suggested that both parties should establish a list of priorities of these sites. Mr. Haavisto responded while his team has already drafted the said priority list in June 2004 in Geneva, they are willing to add additional areas to the priority list, depending on the Ministry of Environment of Iraq. He stated that the

security for both the UN experts and the Iraqi experts has been clarified as an important factor to be able to conduct proper environmental assessments.

A representative from the Iraqi Ministry of Environment stated that in addition to the present 50 hotspots, they are planning to work on an extra 15 sites through cooperation with other organizations. He also emphasized that focus should be given to more dangerous sites. Mr. Haavisto said that there are sites that international help is needed and agreed that there are more existing hotspots that should be included in the list and prioritized. With sufficient capacity building, presence of equipment, and coordinated action, Iraqi experts can eventually work on these fields by themselves. Mr. Haavisto reaffirmed that the international community and UN in particular will cooperate with their Iraqi counterparts on the sites where international expertise is needed.

Dr. Klaus Töpfer underlined that it is necessary to have a feedback process for discussing issues. It is crucial before the implementation to identify the concrete needs and immediate actions that should be done. Donor countries such as Japan must be assured that their investments have been put into a worthwhile project that is doable and equipped with the needed capabilities.

Agenda Item 3

Presentation and Discussion: UNEP Marshland Project Overview

Mrs. Monique Barbut first introduced the project goals and its activities, and explained the purpose of the session was intended to present and discuss the UNEP's plans for implementation.

Dr. Chizuru Aoki discussed a number of points concerning the UNEP Marshland Project Overview: (1) a brief overview of Iraqi Marshlands –identifying what the problems and the needs are, (2) a description of the UNEP project, - presenting its activities and how it aims to help Iraq and its people, and (3) the steps towards long-term marshland management. The ecological, socio-cultural, and economic importance of the marshlands was emphasized. Special importance was placed on the issue of the return of residents and the emerging need for environmental interventions in the marshlands.

She summarized the critical problems and associated priority needs for the Iraqi Marshlands identified by the Iraqi authorities and the UN assessments, which include, among others: (1) Marshland degradation - aggravated by different degrees of ecosystem recovery in the re-flooded areas, contamination with pesticides, salt, untreated industrial and sewage discharge from the upstream, and stagnation of contaminated water as a result of unplanned breaching of embankments that impacts vegetation and fish recovery; (2) Lack of drinking water – identified as number one critical priority by the residents, and as shown by consumption of untreated marsh water and existence of tanker water purchase system in limited areas; and (3) Lack of sanitation – shown by the outbreaks of water-borne diseases, direct disposal of raw sewage to streets or marsh or both, wide-spread poor basic hygiene in most villages, and water-and-sanitation stress caused by the return of displaced population.

The initiative to restore the marshland was identified as a priority by the Iraqi authorities in the list of projects submitted to the UN Trust Fund for Iraq Reconstruction, in addition to the direct appeal to the Japanese Government by Iraq. In this regard, being responsible for alerting the world on marshland degradation and having experiences in EST promotion through IETC and post-conflict assessments, UNEP became involved in and was appointed to implement the project. The project's goal and objectives are to support sustainable management and restoration of the Iraqi Marshlands by: (a) monitoring and assessing current

marshland conditions and disseminating information and assessment tools; (b) building capacity for technical and policy management; (c) implementing EST options on a pilot basis particularly in the field of drinking water, sanitation, and wetland and water quality management; and (d) facilitating policy and strategy formulation and coordination, based on project results and dialogue.

Within a one-year timeframe and a budget of US\$11 million, this project showcases an integrated package of five activity components that includes: (1) Support for strategy development and coordination; (2) Data collection and baseline analysis; (3) Capacity building of Iraqi professionals and policy makers; (4) Implementation of ESTs on a pilot scale; and (5) Raising awareness of Iraqi marshlands and management efforts. The pilot implementation's main feature that is the application of ESTs, its importance and appropriateness was also brought to the session. As defined and endorsed in Agenda 21 (Rio Summit), ESTs are technologies that protect the environment, are less polluting, use all resources in a sustainable manner, recycle more of their wastes and products, and handle residual wastes in a more acceptable manner. Its suitability for developing countries, and its wide and proven range of options from low- to high-tech, continue its worldwide acceptance and further developments. Dr. Aoki also underlined that suitable options are not always intuitively obvious. Suitable options must explicitly consider local needs and conditions, and must include needed trainings on how to access and implement these technologies. Some of the EST examples were also presented, among others were bio treatment, rainwater harvesting, pond treatment, constructed wetlands, sand filters, simple and membrane filtrations, 'jokaso', urine separation, phytotechnologies, reverse osmosis, bucket treatment, water reuse, etc. A number of technologies and proven experiences are available and appropriate, however, the most suitable ESTs will depend on the local conditions and needs, on what is acceptable to the community, and will be decided based on EST assessment.

The first component, Strategy Development and Coordination Support, will be facilitated through the following planned activities:

- (a) Set up a Project Implementation Unit (PIU) within the Ministry of Environment of Iraq;
- (b) Survey the current status of policy and institutional frameworks;
- (c) Organize a Roundtable on Marshland Management;
- (d) Provide support for environmental integration into marshland management strategy development;
- (e) Facilitate donor coordination; and
- (f) Carry out post-phase needs assessment and strategies.

The above activities endeavor to find and apply suitable options for immediate environmental relief and to support objective analysis to strengthen coordination mechanisms inside and outside Iraq.

The second component, Data Collection and Baseline Analysis, has the following planned activities:

- (a) Set up the Marshland Information Network (MIN) to share data, analysis, and analytical tools within Iraq and all around the globe. The IETC's own Environmentally Sound Technologies Information System (ESTIS), a multi-language information system management tool that will be established at the governorates, PIU and the region;
- (b) Monitor the re-flooding activities with satellite image supports and remote sensing analysis. This will establish links to other organizations that have done a significant amount of work in this field;

- (c) Carry out analysis of on-going hydrologic and biodiversity assessments, and water quality sampling.

The third component, Capacity Building, will be carried out on three different fronts: (a) technical capacity building on suitable options for drinking water provision, sustainable sanitation, phytotechnology, and EST assessment and implementation; (b) policy and institutional capacity targeting better water quality management, wetland management, integrated water resources management (IWRM), and supporting community level initiatives to sustain the interests of the population; and (c) data management focusing on remote sensing, and needed training for the MIN. The training courses will be held in the region and Japan, with secondary training to be organized by trained personnel in Iraq. These courses will target Iraqi professionals, educators, civil servants, community leaders and stakeholders, who will be provided with support tools and necessary training materials.

The fourth component, EST Pilot Implementation, covers three pilot applications with a budget of US\$1 million each on drinking water provision, sanitation and wastewater treatment provisions, and wetland and water quality management. Assessments and needs management supports emerging through the course of execution will also be carried out and provided. At least three small communities per pilot application will be considered with up to three EST options short-listed, and one to two of them to be implemented. Within the scope of the pilot implementations and its activities, the involvement of Iraqi counterparts with international input will be crucial particularly in in-country sampling, training and monitoring, feasibility study and assessment, network building, and coordination with international partners.

The fifth component, Awareness Raising, will strive to organize public meetings, distribute awareness raising materials, prepare audio visual materials on the marshland, support community level initiatives for marshland management, organize an international workshop on marshland management, and support for preparation of the second phase as needs arise. These activities also envelop a feedback system that informs the project how it is actually operating on the ground and in real time.

The marshland restoration project is expected to primarily benefit the following stakeholders

- (a) The marshland communities (approximately 0.5 million people) by:
- Assuring better access to water and sanitation, and improved marshland management in communities participating in the pilot projects;
 - Identifying suitable EST options for marshland communities;
 - Providing job opportunities for pilot implementation and maintenance; and
 - Recognizing the marshland community as an important stakeholder;
- (b) The Southern Iraq residents (2.5 million people) by:
- Integrating marsh communities in the regional development;
 - Sustaining livelihood through improved marshland management;
- (c) The Iraqi policy makers by:
- Providing 120 placements of training, and access to new tools and data;
 - Supporting the effort to integrate environmental concerns and the Ministry of Environment into the marshland management;
 - Re-establishing linkage with UNEP and supporting Iraq for its participations in other environmental conventions and transboundary water resources negotiations;
- (d) The technical experts by:
- Providing 120 placements of training to update their skills;
 - Providing employment opportunities for technical tasks within the project.

Dr. Aoki also laid out some of the outputs that the project is expected to produce: (a) immediate relief to marshland communities for water, sanitation, and marshland water quality through pilot projects; (b) establishment of a Project Implementation Unit within the Ministry of the Environment of Iraq to support marshland management; (c) satellite based observation system for marsh monitoring and regular real-time reporting; (d) marshland information network; (e) training materials in Arabic and English; (f) cadre of trained decision makers, experts, and community leaders with on-the-ground experience; and (g) employment opportunities for professional and community tasks.

The security of the Iraqi and UN personnel is a fundamental priority. As a result, activities will be adjusted to reflect the needed security actions. However, despite the restrictions behind the burgeoning security problems in Iraq, some opportunities are envisaged to emerge that will not only be useful to the project but also realize the full potential of the project itself. These security restrictions opens new opportunities such as: (a) increase of the hands-on involvement of Iraqi counterparts through the involvement of the local Project Implementation Unit within the Ministry of Environment; (b) full utilization of on-line systems to share information and manage project, which eventually promote transparency and better information sharing, in addition to a regular real-time interactions via web and video conferences; (c) widening of opportunities for Iraqis to be trained outside the country; (d) creation of employment opportunities, ranging from professional tasks to labor for pilot implementation; and (e) increase of Iraqi ownership and responsibility for the project.

Based on global experiences, marshland management and restoration is a long-term process encompassing various perspectives, and requires time and resources. The UNEP Project recognizes its limitations and needs for additional support for a long-term approach to restoration. Dr. Aoki reiterated that the project addresses three critical problems: wetland management, water and sanitation, and water resource management. There are many additional issues, including public health, biodiversity, transboundary water resources, agriculture, industry, petroleum, infrastructure, displaced persons, land mines and uranium, and cultural heritage, which should be addressed for longer term marshland management. In this regard, coordination of activities by other organizations is crucial to address the need for additional supports and to channel them to resolving the emerging problems. The project will provide tangible contributions to assist Iraqis themselves to come up with their very own master plan for the marshlands. Developing a master plan is an iterative process. Along the process, it is necessary to consider: (a) individual needs assessment and sectoral strategy formulation, (b) dialogue and consensus building, (c) institutional arrangement at local, national, and regional level. Iraqis should lead the development having the Centre for Restoration of Iraqi Marshlands (CRIM) as a focal point, and UNEP taking the leading role in coordination for master plan development at the international level.

Prof. Muthanna A. Wahab Al-Omar presented the Iraqi overview of the project. He started with the importance of the marshlands to Iraq and its people, and how it was deliberately destroyed when oil exploration and the Iran-Iraq War began. Destruction was worsened by the execution of large projects to dry up the marshes from 1992 to 1994. In addition to the remaining 5-10% viable marshlands along the Iraqi-Iranian borders, few notably small positive results have been observed in some parts of the marshlands that had been re-flooded through breaching of dikes by the Ministry of Water Resources at the request of the local people themselves and also as a part of flood preventive measures. The breaching of the dikes by the local people also continued until the 3rd week of April 2004, which eventually resulted to bigger re-flooded areas.

Prof. Al-Omar stated that the need to restore the marshlands and resuscitate its economy was agreed upon by the concerned eight ministers last January 2004. By the same consensus, training of staff of the Ministry of Environment and Water Resources of Iraq began last March 2004. Even though 40% of the marshlands have been inundated as of May 2004, the state of recovery in these areas varies with the location and ecological condition of the marshland. Among the re-flooded areas, Abu Zareg, Nasseriya marshes showed remarkable recovery as evidenced by high biodiversity observed.

He concluded by emphasizing the urgent needs of the Ministry of Environment of Iraq, which are:

- (a) Capacity building in all aspects of environmental monitoring;
- (b) Sampling facilities, analytical laboratories, and equipment;
- (c) Conducting ecological research on biodiversity and endangered species;
- (d) Pilot programmes to help select the appropriate green technologies for helping Marsh Arabs, which includes solar and wind power generation of electricity, sewage disposal, water treatment, etc.; and
- (e) Widened opportunities to join international conventions related to wetland management.

Discussion on Item 3

Mrs. Monique Barbut reaffirmed UNEP's commitments to the project and opened the floor for comments and questions particularly on the implementation and concept of ESTs that is unique to the project and is new to many of the concerned participants. She also welcomed questions on capacity building especially in the water sector and asked for additional recommendation for its facilitation.

Prof. Takeuchi of Tokyo University made a comment on some preconditions for the project. He emphasized that issues related to transboundary water resource management should be included as preconditions as they are crucial to resolve Marshland issues. He cited the dam constructions in Turkey and in other neighboring countries that influence the water resources in Iraq. There is a clear need to take into account the issues in the upstream



Discussion session

areas in dealing with overall process of restoring the marshlands. Mrs. Monique Barbut responded that this issue is not singled out as the only critical issue. UNEP within its capacity is aware of various issues critical to the global management of the Iraqi Marshlands. She clarified that UNEP-IETC being the centre tasked to implement the project recognizes that more dedications, discussions and dialogues, and time and resources are needed but it is not the sole purpose of this initiative to deal with transboundary water issues. Dr. Chizuru Aoki added that IETC recognizes the issue as an important challenge, and this project is a small and initial part of a comprehensive marshland management programme that needs to be put together and address the transboundary water issues. The activities and implementations of the project should be limited to its goal and objectives. Within the UN Mechanism for Iraq Reconstruction

there are several working clusters that are directly dealing with these issues, such as water and sanitation, water resources management. Hence, coordination among these clusters and an active information dissemination campaign are crucial so that each concerned party in the marshland will be kept informed of the activities that have been put on the ground. None of the cluster projects so far has ventured into really addressing the front on tackling issues on transboundary water management for Turkey, Syria, Iran and Iraq. Dr. Klaus Töpfer responded by emphasizing that the main concern of the project must be to analyze the available water and build information that will assist the decision making process for restoring the marshlands. Management, in addition to identifying suitable technological options to efficiently utilize and recycle water, if possible, should also be the core of the activities. This project is also an opportunity to integrate technological bases, which covers a range of technologies from high capital intensive (e.g., sewage treatment) to nature-based treatment processes (e.g., phytotechnologies). These are the first steps that should be undertaken before dealing with the overall distribution in the shared basin to smoothly implement change or development or both. In this case, a win-win-win situation is assured: (1) making available water in Iraq and other places more intensively usable and appropriately allocated to where it is critically needed; (2) having a better management in the overall basin of Euphrates and Tigris rivers covering Iraq and its neighbors; and (3) improving the quality of water flowing into the gulf. After all these have been acquired, such information and knowledge can be a good input to the overall political discussions. And these inputs must come not only from the downstream side but also from all the users and stakeholders involved. He further stressed that having a harmonized information basis available at the outset of the project in order to address the needs of the different sectoral issues is a very important precondition to avoid unexpected tensions. To immediately discuss the political issue behind the course of the project without having full organization of information will result in a project that is emotionally overloaded. He expressed his full support to the approach of the project - to do whatever is possible, to make information available, and to invest in technologies making water better usable, fully utilized, and available for the marshlands and its people. Discussions about the overall distribution in the common-shared water bodies go beyond the technical experts and need to be included in the overall assessment. The project is itself small in terms of the resources it can offer, but is crucial to establish the needed preconditions for future projects concerning the marshlands.

Prof. Muthanna A. Wahab Al-Omar requested an opinion regarding the two contradictory directions about the Marshland rehabilitation among specialists that are increasingly becoming a conflict of interests in Iraq. The local people are pro-urbanization while environmentalists are against it particularly in the marshlands, as it should be considered protected areas with high cultural heritage value.

Dr. Azzam Alwash of Iraq Foundation pointed out that there are many opportunities for working together. However, there is also a lot of duplication of tasks. Some of the presented activities have been undertaken or are underway in the CRIM. What is important to focus on is the method of coordination for an efficient use of available resources and no duplication of tasks. Mrs. Monique Barbut answered that UNEP has started to engage with CRIM and other donors to make sure that there is no overlapping of tasks.



Representatives from various Iraqi ministries

Dr. Augusto Pretner of the Italian Eden Again project expressed the full support and willingness of the Government of Italy and its Ministry of Environment to co-operate in the most efficient way with UNEP and other international organizations involved.

A member of the Japanese delegation reiterated the importance given by the Japanese government to the project together with its financial commitment. He also pointed out the need for visible and concrete results within the very short timeframe of the project. To achieve the expected outputs, the project should gain strong political influence and gather additional support to mobilize its current resources. He enquired about the IETC's feasibility studies on the implementation of ESTs, which will be applied to the pilot projects. He also mentioned that the Japanese Government would be organizing an Experts Meeting in Japan to promote and accelerate the project implementation and capacity building programme for the Iraqi Ministry of Environment at the end of 2004. Dr. Chizuru Aoki responded that within one year, provided security is in place, IETC and its concerned partners hope to do the assessment and implementation. A number of suitable options for the region will also be identified along the process of baseline analysis. And this will lead to the second phase that considers looking at different communities, different villages, different set of technologies, or capacity building needs that may emerge from the continuous dialogue to be fully supported by UNEP with the Iraqis and partners. She also said that this project, after one year, would open more opportunities or areas to look into to make it into a more programmed and long-term approach. And to establish a long-term approach means having a strategy within Iraq for marshland management.

Ms. Rania Dagash sought clarification on the weight given to in-country against out-of-the-country trainings. The overview of the project gives a good framework of what needs to be done. However, in-country training seems not reflected, as it mostly focuses on out-of-the country trainings. She mentioned that in their work with displaced population, in which the Marsh Arabs constitute one of the largest caseload in the country, the application of a lot of these trainings and



Representatives from the international community

other elements inside the country is one of the major challenges. She is particularly interested to know about how UNEP intends to tackle the issue of putting up in-country activities. Dr. Chizuru Aoki agreed on the importance of in-country training and responded by saying that having a training opportunity in different local conditions and incorporating in it the needs of the local communities will be very much crucial for the project. IETC is planning to do technical and data management, and policy trainings. These training programmes include a component on "train the trainers." Training materials and at the same program on how to carry out these trainings inside Iraq will be all provided. The trained Iraqis themselves will organize a secondary training for communities, governorate levels, and other areas of concern as they go back to their respective designated areas. IETC has allocated corresponding resources to make sure that whatever suitable mechanisms that may emerge from the dialogue and from these secondary trainings can be supported through this project.

Sheikh Sabbah Badr Al-Rumayed raised the issue of security in the Iraqi Marshlands. Security is indeed an obstacle to the implementation of the project. Nonetheless, as a native of the marshlands and as one of the people of Amwar, he gave assurance that the security conditions in the marshlands are different from other parts of Iraq. The gateway for experts coming to the marshlands to provide the training, to implement such activities,

and to survey the real conditions of the people are safe via Kuwait. The marshland people are also ready to support and provide security protection, as the need may arise and if required by the project. Dr. Chizuru Aoki thanked him for his commitment to providing the needed security for the project. The current security situation in Southern Iraq being much safer than any other place and with the local communities ready to provide security measures for the project is indeed a crucial factor for smooth implementation of the project.

Dr. Klaus Töpfer thanked Ms. Dagash and the Sheikh for their invaluable information and input. He reiterated that the project does not only address the issue of restoration but also include the local conditions of the Marsh Arabs. Local people develop over time and adapt to another living conditions. They need to be fully integrated in every action directed towards the marshlands, as they do not only want it to be restored to what it was once, but also to have it back for themselves and their children. Hence, a direct contact with the people of the marshlands is an important precondition for any success. He added that these activities could be linked to the CRIM programmes. Establishing linkages between CRIM and other concerned agencies is crucial to the success of the project. UNEP will not implement the project single-handedly. The backbones of this project are the partners who can work together for a common goal. That is to secure the future of the marshlands and its people. The UNEP Project has no intention to set aside what is already ongoing in Iraq, particularly the activities that CRIM are currently doing. Existing programmes and on-going projects, which are directed towards the marshlands, will be taken as additional input to the project and will not be replaced by it. He also emphasized that a one-year timeframe to know what is at stake is very short. He reiterated that the project would not replace existing activities, but integrate, accelerate and coordinate them whenever possible. He requested a clear programme of activities based on consensus and outlining all the additional input to the project from different stakeholders, which would eventually be developed to a comprehensive Iraqi Action Programmes for the marshlands. He appreciated the presence of different governmental representatives such as the Italian Government for keeping an eye open for undertaking initiatives and sharing lessons learnt so that others could invest their resources efficiently into resolving urgent issues. It is also important to recognize the interrelation of soft and hard components of the project. Discussions on capital components should be transparent and well targeted. He addressed this issue to the colleagues from the World Bank that is the major provider of hard components.

Mr. Clay Rubec, Canada-Iraq Marshlands Initiative recognized working to complement the UNEP project. Many elements of their proposed activities would work well with UNEP project and with Iraqi partners. He welcomed the opportunity to be a partner in the activities that were being launched in the meeting.

The Regional Environmental Advisor for World Bank expressed their commitment to complement to the workforce of the project. The World Bank would focus primarily on the Shatt Al Arab area (Southern part) with two components: (1) Soft component – bringing together Iran, Iraq, Kuwait in the same place to work together in managing the Shatt Al Arab region; (2) Hard component – financing real investments to bring economical growth to the area. Believing that the marshlands cannot be isolated from other institutional policy and environmental issues of Iraq, the World Bank welcomes the project of UNEP. The World Bank is also designing with the Ministry of Environment of Iraq, an environmental management programme that looks at rebuilding the institutional legal framework of the ministry to complement to UNEP's project.

Sheikh Abbas Omar Al-Abady expressed his hopes for the success of the roundtable meeting and his confidence that the meeting could be a tool to achieve a large part of the marshland ambition. The meeting is a good initiative for reaffirming the determination to support the marshlands and Iraq as a whole. He also pointed out the true sufferings of

the marshland people: the killings, the destruction of resources, and the indiscriminate drying of the marshlands that was a part of their civilization. He added that it was God's will that this would be over and the Garden of Eden would be revived again right in the marshlands. Iraq is becoming united, and soon democracy will prevail all over its land. He announced that translated copies of the working paper showing what the people of the marshland require based on the realities they are living in would be provided to the meeting. The Marsh Arabs also recognize the position of the Ministry of Environment and the Ministry of Irrigation in addressing their needs and problems. Lastly, he expressed his hope for a successful restoration of the Al-Hammar marsh and the overall success of the project.

Agenda Item 4

Presentation and Discussion: Marshland Initiatives Supported by United Nations

Mr. Seifldin Abbardo of the UN Iraq Trust Fund introduced the United Nation Development Group (UNDG)-Iraq Trust Funds. There are two windows for International Reconstruction Fund Facility for Iraq (IRFFI): (1) Grant Funding by the World Bank where funds are channeled from the donors to the bank; and (2) UNDG Funding. The trust fund was set up to support the humanitarian and reconstruction efforts in Iraq within the context of meeting the targets set in Madrid and to follow the needs assessment that was jointly conducted by the World Bank, the UN, and the IMF.

A UN Development Group is a group of UN agencies and programmes working, as their names entail, on developmental programmes. They are directly and indirectly represented in the field. It is a field-oriented mechanism having UNDP, headquartered in New York, serving as the administrative agent. The rest of the management is handled directly on the field. Within the context of meeting the requirements of assisting Iraqi people, and following the framework of needs assessment and the Madrid document, the UN System has established a set of clusters. The approach has been tried in a number of similar operations. It addresses meeting the demands within the context of an integrated approach without giving credit to individual agencies but to their overall performance as a cluster or a team. The programming exercises took the format of UNDAF, a new programming instrument that has been introduced to facilitate the UN system to work together.

In this spirit, the clusters cannot be considered as sectors. Eleven clusters were established covering 14 distinct sectors. Clusters represent various issues around which a number of UN agencies are concerned within the context of their mandate and within the context of their operations in the field. Accordingly, the approach started with 10 clusters:

- (1) Cluster 1 – Education, with directly and indirectly involved organizations such as UN-Habitat, UNICEF, UNESCO
- (2) Cluster 2 – Health, with WFP, UNDP, WHO, UNICEF
- (3) Cluster 3 – Water and Sanitation, UNICEF, UNDP;
- (4) Cluster 4 – Infrastructure, with UN-Habitat for housing and urban development;
- (5) Cluster 5 – Agriculture, Water Resources, and Environment, a wider cluster but well-matched and integrated;
- (6) Cluster 6 – Food Security, with WFP, WHO, UNDP;
- (7) Cluster 7 – Mine Action, addresses clearances and ordinances for mine operations and deals with depleted uranium;
- (8) Cluster 8 – deals with displaced segment of the society (IDP) and Refugees, with Clusters 1 and 2 involvements; issues in this cluster are addressed in a more

comprehensive way as they relate to other clusters rather than as they relate to agencies;

- (9) Cluster 9 – Governance and Civil Society, with a wide mandate that focuses on reform processes be they social, economical or political;
- (10) Cluster 10 – Poverty Reduction, Human Development, Employment, with the leadership of UNDP and wide participation of other agencies; and
- (11) Cluster 11 – Electoral Process, provides technical support and social awareness, and social mobilization supported by civic association in accordance with the Resolution No. 15-46.

These clusters are multi-faceted. UN agencies have established these clusters to address a number of sectoral issues within the cluster and among the clusters with a clear deliberation of responsibilities in terms of how each agency can actually act together among them. The whole structure is managed by a Steering Committee composed of the UN Country Team and heads of agencies represented in Iraq. The committee had been relocated in Amman where it holds meetings as planned. Its mandate relates to the policy direction of the programme and approval of the project proposals submitted by the clusters. It has a clear mechanism for clearance, approval, appraisal of projects, and takes into consideration the changing and emerging priorities of the country. Each cluster tackles an issue in different angle and in an integrated way. There is also an intra-cluster coordination and inter-cluster coordination in the process. So far, 43 projects have been approved as of May to September 2004, totaling to US\$ 470 million. Donors hold regular meetings, spearheaded by its committee that revises and reviews the work of both the UN and the World Bank.

A representative of WHO, which is a member of the Health Cluster, presented the second cluster's on-going activities, and achievements thus far. The cluster adopted the 1981 World Health Assembly, Resolution No. 34.38 as their mission, which states "the role of physicians and other health workers in the preservation and promotion of peace is the most significant factor for the attainment of health for all." They have carried out a number of nationwide campaign and door-to-door activities such as polio immunization, proving health can be a bridge for peace.



Representative from the UN Cluster on Health

The UN Health Cluster's main partners are WHO, UNICEF, and UNFPA with additional support coming from WFP, IOM, UNIDO, the World Bank, and international and national NGOs. It mainly works with its local driving force, which are the line ministers: MOH, MOHE, MOE, MOEV, and MOPD. International and national NGOs as well as other UN Clusters such as Water and Sanitation, and Education and Culture, neighboring countries in the region like Jordan, and regional and global organizations are also involved in many activities dealing with cross cutting themes on human rights, gender, environment, security and employment.

The Health Cluster works with the Ministry of Health to support its vision for Iraqis particularly in developing proposals, and conducting situation analysis, which engage the Ministry in all activities in order to create a strong sense of ownership. Among the cluster's working principles are: (a) synergy between all the stakeholders, (b) provision of a unified approach and support to the Ministry, (c) priority setting consistent with the MOH's strategy

for health, and (d) weekly meetings and monthly joint reports. Through the cluster approach, the UN Health Cluster led by WHO is planning, programming and implementing activities together in the field of health, while sticking to its comparative advantages of rapidly mobilizing a full range of expertise, building capacity and strengthening institutions, and widening existing networks at local, national, regional, and global levels.

The representative also emphasized their initiatives for security of their working force. It implements strict regulations for the movement of staff, spreads out meeting locations in different ministry offices, keeps low profile movement with unmarked rental cars, and maintains daily follow-up using telephones, sat phones, and video conferences with the Health Cluster. Some of the funded activities, which eventually resulted to decrease of reported disease cases include: (1) rehabilitation of the 4 key laboratories in Baghdad (by ECHO, US\$ 5.7 million); (2) emergency medicines and medical supplies (by EC/UNDP Trust Fund, US\$ 2.7 million); (3) vaccine management workshop (by EC/ UNDP Trust Fund); (4) polio national immunization day (partly by EC/UNDP Trust Fund, US\$ 2 million); (5) MMR national immunization (partly by EC/UNDP Trust Fund, US\$ 0.7 million); and (6) cutaneous leishmaniasis prevention (partly funded by EC/ UNDP Trust Fund).

He concluded by outlining some general areas of major needs in assisting the Ministry of Health: (1) humanitarian assistance (short term); (2) rehabilitation (medium term); (3) development/technical assistance to key ministries (long term). And in the event of having all supports in place, the following outcomes could be achieved: (1) increase access to quality healthcare services especially for the vulnerable group and the un-reached; (2) reduction in under 5 and infant morbidity and mortality; (3) reduction in maternal morbidity and mortality; (4) enhancement of disease prevention and control including HIV/AIDS; (5) enabling environment for healthy life styles ensured; and (6) emergency preparedness and response ensured.

Dr. William Fellows, the UN Water and Sanitation Cluster task manager, presented their activities in the areas of Marsh Arabs of lower South Iraq. He emphasized that the area has not only been long neglected but also challenged hydrologically, hydrogeologically, and hydraulically. Historically, there has been a low-level of improved water and sanitation services and practices in the area. There was traditionally no proper water, and sanitation facilities in the Marsh Arabs areas. The situation has worsened after the war, with sanitation at the household level remained lagging behind.

He continued by presenting the real situation of water and sanitation in the marshlands: (1) Population travels long distances to some of the water facilities, which were constructed close to the water ways, and some irrigation canals due to lack of water facilities; (2) Poor and brackish quality of water is treated through compact units; (3) No proper sanitation facilities are in place due to the nature of the ground and the high level of ground water. Resolving these issues require a good framework for river basin management. Every water and sanitation initiative will not be useful without the existence of a framework for river basin management. International NGOs have been a vital component of the cluster from the very beginning during the need assessment. Government partners, line ministries, and Baghdad Municipality have also played an active role particularly in the area of water quality. Some of their interventions are several assessments carried out by UN agencies and NGOs in lower south of Marsh Arabs, and by UNAMI in the lower south of Basra.

In terms of other responses, Dr. Fellows mentioned some agencies and NGOs that have, and are carrying some activities in the area of Marsh Arabs in lower south governorates. Most of

them carry out projects on rehabilitation of water and sanitation facilities and mini-networks, and water tankering.

He also summarized the UN and NGO future plans, and challenges of water and sanitation sector for the Marsh Arabs. Support for water, sewerage, and municipalities and authorities in the three lower south governorates is being organized with the following key elements:

- (a) To coordinate water and sanitation support to the Marsh Arabs – requires a complete reversal of the current system of management in the sector and huge amount of capacity building;
- (b) To rehabilitate water facilities, and introduce reverse osmosis industry to the Marsh Arabs communities – involves community ownership in the process;
- (c) To assist the communities to construct the proper household, school, and communal sanitation facilities, and conduct hygiene education trainings, social mobilization to ensure proper hygienic practices – applies community-based and demand-responsive and affordable ESTs;
- (d) To assist the communities to establish garbage management systems (proper collection, transpiration, and disposal) – involves overall coordination of waste management.

Mr. Lakis Papastavrou, the UN Agriculture, Water Resources, and Environment Cluster task manager, presented their programmes and priorities for the marshlands. Apart from the overall restoration of its ecosystem, the cluster works to develop a medium and long-term plan for the marshlands and its people. Headed by FAO, partner agencies include UNEP, UNESCO, UNIDO and WFP, with cross cutting supporting members, UNICEF, UNHCR, ILO, and UNDP.

He emphasized several issues to address within the cluster as follows: (a) apply integrated community approach; (b) identify livelihood needs; (c) select support programmes; (d) provide input to sustain initial livelihood activities; (e) identify and provide technology transfer requirements; and (f) identify areas of support to civil governance in the marshlands. The UN Cluster 5 takes a holistic approach in supporting livelihoods and sustainability and makes sure that every action is built upon Iraqi expertise, human resources and capacities. Partnership between other UN agencies, local institutions, and NGOs also exists as well as addressing gender issues and prioritization of vulnerable communities especially in the lower south.



Representative from the UN Cluster on Agriculture, Water Resources, and Environment

He also mentioned some of the specific activities being undertaken by each partner agency. FAO, the leading agency, supports: (a) supplying rural communities and farmers' groups with agricultural emergency input; (b) rehabilitation of critical irrigation/ drainage infrastructure; (c) restoration of essential services – veterinary, animal and fish production; (d) capacity building in agriculture, fisheries, water resources and irrigation, environmental management. UNESCO supports the government in policy development including international water issues and water resources master plan. UNIDO supports promoting agro-industry at the household and enterprise level, and the rehabilitation of the dairy sector. UNEP, on the other hand, seeks a regional consensus on rehabilitating the Mesopotamian marshlands, and develop targeted responses for urgent environmental remediation.

Some of the accomplishments of Cluster 5 include: (a) distribution of food and essential inputs for vulnerable communities; (b) joint needs assessment; (c) vocational training for most vulnerable community; (d) infrastructure rehabilitation in return of communities; (e) capacity building of various governmental and non-governmental organizations; (f) and intermediate provision of services. At present, the cluster has 3 main projects in water sector, 2 main projects addressing community, and some projects in the environmental sector. Among the on-going activities are: (a) the promotion of cottage industry in rural areas; (b) assessment, emergency maintenance and rehabilitation of community irrigation schemes and restoration of water supply in rural areas; and (c) support to fisheries.

Ms. Alia Al-Dalli, the UN Poverty, Human Development and Employment Cluster task manager, started with the background on UNDP's overall strategy for generating employment and providing diverse opportunities for the people, and Iraq Reconstruction and Employment Programme (IREP). The cluster's programme activities started on 15 March 2004 with a total of 100 projects (US\$ 2,465,452) in the Southern Region at present. Covered Southern governorates include Basrah, Missan, Muthana, Thi Qar, and Umm Qasr. The main areas of activities tackled are: health, water supply networks, sewage system and solid waste, irrigation and drainage, environmental rehabilitation, and support to municipalities and the Port of Umm Qasr.

Partners exist at different levels. IREP is closely coordinating and implementing its activities with the local counterparts, these are: local councils, municipal departments (agriculture, water and sanitation, sewage, public works and health), local communities and private sectors. On the other hand, in a parallel implementation mechanism, UNDP has partnered with 7 international NGOs to assist in implementing labor-intensive components of their activities in Iraq, including: Islamic Relief, Care International, War Child, Advocaid, International Medical Corps, Coopi, and Qandil. Three of these international NGOs (Care international, War Child, International Medical Corps) have projects in the Southern Governorates on street and riverbank cleaning, sewerage system repairs, and hygiene and environmental education provision.



Representative from the UN Cluster on Poverty Reduction and Human Development

Thus far, the cluster's activities and programmes have the following impacts and results: (a) establishing networks among key counterparts – national and international organizations- in the process of implementation and coordination; (b) capacity building of the local government counterparts-local councils, administrations and communities; (c) capacity building of national NGOs and associations in areas of project management, planning and monitoring; (d) local economy boosting as a result of purchasing materials and tools locally generating activities in the local economy; and (e) modernizing local administrations and reconnecting them with the people they serve.

She ended her presentations by outlining potential linkages and cooperation for IREP and UNEP Marshlands Initiative, which included: (a) the UNEP field survey for the overall situation of the marshlands; (b) guaranteed IREP's cooperation for identified priority action areas and as long as individual priority initiatives are build around 60% employment ratio at the bottom market rate of US\$ 3/day; (c) labor-intensive activity of house building; (d) environmental clean-up campaigns, garbage collection, cleaning of minor waterways,

reinforcing rivers and canal shoulders; and (e) provision of water supply systems especially to the marshlands.

Mr. Abdi-Aziz Osman, UNCHR Iraq Operations Unit in Amman, Cluster task manager, presented the rationale of involvement of the cluster in the marshland programme. He gave an overview of a major source of displacement (i.e., internal and external) and number of returnee and IDP families. He also pointed out that displacement and return does not only affect the people themselves but also the communities hosting them. The region, particularly 15 sub districts and 947 villages, has suffered from drought for four years, further reducing livelihood opportunities, weakening infrastructure and increasing hardships for the displaced and the host communities. The recurrent flooding also continues to cause displacement, with more 5,000 families displaced in 2004. Displacement is as well attributed to desertification, and contaminated and salty water, with diminishing productivity and income in the marsh area.

The UN Cluster 8 is people-oriented in nature. It seeks to address the most vulnerable population. There are 3 categories of displaced population: (a) those who remained alongside the canal – fights over access to water and land in a condition of reduced productivity or revenue possibilities; (b) those who moved to nearby villages and urban areas – remains marginalized and un-integrated in the society; (c) those who have moved and tried to integrate in the North and have now returned – by choice or force of circumstance - to be near the marshes.

He highlighted the objectives of their comprehensive and community-based approach to reconcile and reintegrate the people to the marshlands. These included provision of community based support, affordable shelter, quick-impact projects in key service sectors (e.g. education, water and sanitation), and capacity building to enhance sustainability. He mentioned some activities in the marshes and their achievements. Despite the security constraints, the cluster is almost close to accomplishing its tasks but is very much willing to identify areas of possible links to UNEP Marshland Restoration Project.



Representative from the UN Cluster on IDPs and Refugees

Discussion on Item 4

The chairman raised a couple of issues that stemmed out from the 5 cluster presentations in addition to other challenges faced by other UN clusters.

The mechanism entails 5 crosscutting themes that are the common denominator of all the programmes and activities of the clusters. They are: (1) the security, which is of paramount importance; (2) the human rights, which is a rights-based approach; (3) the environment, in which UNEP, within the context of its work, is reviewing the environmental implications of project and programme submissions and providing significant comments, having so far resulted to the revision of 3 projects; (4) the employment, the UN, by virtue of its nature, does not entail generation of large employment; (5) the gender concerns.

He also pointed out that being in Amman does not preclude communication with government ministries. Available technologies are constantly utilized to communicate with the in-country counterparts. Constant communication monitors the progress and guarantees the success of the programmes. Part of the project approval entails support by certain governmental development agencies involved in the project, in addition to the clearance of the Iraqi Strategic Review Board (ISRB). In terms of meeting the national priorities, as they change and emerge, UN is working to identify its niche to support them.

An Iraqi representative enquired about the financial allocation of the FAO project on fisheries, and if it is still on going or has been stopped. He added that fish industry was crucial to the Marsh Arabs because for the past two decades, 2/3 of the fish productions were coming from the marshlands. Mr. Lakis Papastavrou clarified the existence of the project and added that they were currently revising a preliminary document on fisheries in order to benefit from the overall objective of the improvement of fish industry in the country. He also acknowledged the presence of the Ministry of Agriculture (Dr. Rafit) who has a lot of experience on what is currently happening in the Marshlands, and the presence of FAO Cairo working for the Fisheries International Centre in Egypt. With the assistance of a representative from the Ministry of Planning, Development and Cooperation, the revision will be completed before it can be submitted to the Steering Committee for approval and allocation for funding. To finalize the revision for submission, one of the proposals is the implementation of pilot schemes where new species like 'tilapia' and crayfish will be introduced especially in the marshlands where water seems to be suitable to these species. Commercially based culture system will also be attached to the communities so that they will be able to sustain and at the same time attract young generation to do the work.

Prof. Jamal Abaychi of the Iraqi Ministry of Environment commented on the introduction of alien species into the marshes. In taking such steps, there are risks involved, which everyone should be careful of. From the ecological point of view, he suggested that it was better to culture domestic species which are locally accepted by and valuable to the Iraqi people particularly to the Marsh Arabs. Mr. Lakis Papastavrou chose not to give his opinion as it lies on the hands of fishery experts. He said, however, that there is a tremendous potential for tilapia to be commercially feasible for export. He also emphasized that fishery sector should be remodeled to a commercially oriented production, in addition to subsistence production.

Sheikh Sabbah Badr Al-Rumayed raised the issue of animal welfare and sanitation in the marshlands. He emphasized that the life of animals is as important but not better than the life of the people. It is one of the pillars of economy in the marshlands. He enquired about how the protection and development of animal livestock was addressed in order to increase the economical livelihood of the marshland people. He also suggested that there was a need to show the people that such projects had been implemented or were being implemented. Administrative corruption is commonplace. People's awareness is crucial and they should be convinced that the UN and the donors have allocated money to develop and improve their lives. Mr. Lakis Papastavrou answered that within the UN Cluster 5, one project (US\$10.5 M) had been classified to support the veterinary and the livestock sector through the rehabilitation of veterinary clinics and strengthening of artificial insemination plans of the Ministry of Agriculture and Animal Resource. Assurances are provided to districts and sub-district levels of the Ministry of Agriculture, and to the whole of Iraq, including the marshland areas.

An Iraqi representative emphasized the degradation of the soil due to dam constructions and absence of natural floods. In his 12 years of experience in the marshlands, the degradation turned the soil into salty surface layers that consequently diminishes its productivity. He pointed out the importance of including soil rejuvenation or

improvement and to the importance of water resources and services especially for places suitable for rice planting into the working programme for the marshlands. He also added that UNEP and other concerned ministries should encourage farmers to replant rice, and universities to do marshland research. In the event of undertaking these campaigns, laboratory equipment should be provided to establish data bank, and other supports for research would eventually be beneficial not only to UNEP but also to other ministries and organizations. He also expressed his expectations to be further involved in the outside trainings together with other employees of the institute to learn from the experiences of other countries and be capable of providing management services to the people of the marshlands. Lastly, he brought up the issue of raising awareness on the use of poisonous chemicals that were currently being handled by the Ministry of Water Resources, and suggested to include some pilot implementation for rice planting in the work plan of UNEP to increase rice economy in the marshlands. Mr. Lakis Papastavrou shared that there were actually two activity areas relating to these issues within Cluster 5. The first is the capacity building and international strengthening of water resources sections in which UNESCO will soon be involved. The capacity building programme directly benefits from technology transfers and strengthens the capacity of the scientists in the centre. The second is the cottage industry, which is spearheaded by UNIDO. This looks into areas where they have comparative advantages in rice production. The main issue is not only a matter of producing rice but also looking at the production in certain areas where there is a comparative advantage to produce rice. A part of introducing commercial operations where communities can basically sustain livelihoods and become commercially oriented is to introduce an integrated system to establish production and marketing as such. In this way, the overall income generation from rice production is maximized.

Mr. Kiyoshi Koinuma of the Ministry of Foreign Affairs of Japan sought clarification on two points, which are: (1) coordination mechanisms between agencies and the clusters and how the priorities are coordinated among other clusters; and (2) current situation of the fund raising activities of the UN-Iraq Trust Fund, apart from the regular donors meetings and the UN-appeal to donor countries to commit for contributions. Mr. Abbardo responded that in terms of prioritization and coordination within the clusters, the member agencies and members of each cluster are very much involved in the whole process. The



Representatives from the Ministry of Foreign Affairs of Japan and other Japanese authorities

competing demands and issues are discussed within the clusters. Prioritization actually stems from and is assessed through criteria that have been developed within the context of setting up the trust fund. These are rigorous criteria that looks at submission of projects within the context of resource allocation and why the programme should be chosen from one cluster. These criteria address the issue of whether the programme is a national priority or not, and consider the level of support coming from the national Iraqi counterparts and the Iraqi Strategic Review Board. Most importantly, the extent of deliverability of input and the time for the enhancement of the situation on the ground are also taken into consideration. The extent to which these interventions can be implemented within the shortest timeframe to contribute and enhance the conditions, and how the deliverables are going to be actually delivered, are some of the critical elements, apart from the security situations needs on the ground. The presence of national staff

and other partners such as international and national NGOs is also crucial in the case of the absence of the UN staff inside. The extent of how the inside partners are going to be involved in the delivery of various inputs should be well discussed and planned. With regards to the second issue, Mr. Abbaro responded that there would be a donors meeting. The third meeting will be in Tokyo on October 13-14, 2004. The donors have already committed themselves to a billion dollar contribution to the UN within the context of the Madrid conference, out of a US\$ 36 billion commitment. Of the US\$ 1 billion commitment, the UN system has received US\$ 400 million so far. The present plan is to solicit for more donors. At this period, the donor committee is chaired by Japan. Japan is touring donor capitals to try and solicit more support from them, with some positive interests coming from the bilateral and multilaterals. He added that Tokyo was going to witness a review of progress for the past 6 months since the inception. Although it has only been a year after Madrid, it is more or less 6 months since the mechanism has started working. To this extent, the review of progress will know the extent to which these mechanisms are working and to identify improvements to be reintroduced.

Sheikh Sabbah Badr Al-Rumayed raised the issue of the IDPs, refugees, the returnees and the assistance for them. These people are even poorer than they were before they had evacuated from their lands. They have weak capabilities or no capabilities at all to manage and revive the only source of their livelihood as they return to the marshlands. Hence, a sustainable programme should be provided to assist them. He also emphasized that humanitarian aspects should be included in the programme such as housing, employment opportunities, and food resources. Mr. Abdi-Aziz Osman agreed that it was indeed the real situation of the displaced population and returnees in the marshlands. Realizing this, the UN Cluster 8 brings together a number of UN agencies that are trying to address the issue of displacements from different angles. With regards to the issue of housing provision, there is an on-going project for affordable housing and a programme, which involves repair and rehabilitation of infrastructures, whether it is under education, health, and other areas, with the coordination of other cluster members and partners. The ultimate goal of the UN Cluster 8 is to put up a comprehensive and integrative programme to solve these displacement issues. Its mission is to find lasting and durable solutions for the re-integration of the people with their lifestyles without creating additional burden to the communities that are now hosting them.

Dr. Azzam Alwash sought clarification about the existing mechanism on coordination. The Ministry of Water Resources has the mechanism established since January of 2004. Mr. Abbaro called for the enactment of the said mechanism and to strengthen it so that it could move forward and accelerate the integration of on-going activities in the whole area.

Mr. Abbaro concluded the session by pointing out that the UN is supporting the marshland within the context of its overall programme for Iraq Reconstruction. The issue of the marshlands requires a particular approach that looks into the need for a full, partial or no restoration, depending on the present state of the ecosystem and its destruction. The marshlands constitute a great challenge not only to Iraq but also to the donor and international communities to find durable and lasting solutions that are accepted by the people. In this endeavor, the most important element that the UN is putting in place is participatory approaches. The people must be involved in developing any solutions, as they would have to live with whatever solutions to be put on the ground.

He also stressed the need for the government of Iraq to establish coordination mechanisms amongst the various ministries involved in the areas especially within the context of finding a final and durable solution to integrating the fragmented activities directed towards marshland restoration. There has to be (1) in-house coordination, and (2) donors-government

coordination. Donors should not implement projects, start establishing programmes, and set-up solutions on the area single-handedly.

There should be coordination on the ground with donors taking the initiative of addressing issues within the context of a long-term solution rather than short and immediate-term solutions. He suggested that with a better exchange of information, an attempt to emerge with not a special programme but at least a focus programme on the marshlands within the context of activities that are currently taking place might result to a more comprehensive approach and accelerate the expected achievements.

Agenda Item 5

Presentation and Discussion: Marshland Initiatives Supported by Bilateral Institutions

Mrs. Monique Barbut welcomed the representatives from several bilateral institutions and opened the session for their presentations regarding their activities and initiatives for the marshlands.

Mr. Clayton Rubec, University of Waterloo and Environment Canada, presented the Canada-Iraq Marsh Initiative (CIMI). The CIMI had been proposed to the Canadian International Development Agency (CIDA) as a part of Canada's CA\$ 300 million commitment to Iraqi Reconstruction. It is being implemented in cooperation with institutions and agencies in Iraq and a 2004-2007 CA\$ 3 million investment based on cooperation between Canadian and Iraqi institutions. Initiated since May of 2004, it is funded by the federal government of Canada and implemented by a Canadian university and various partner groups. Its objectives are to: (a) identify Mesopotamian marsh management needs and priorities; (b) strengthen partnerships for the Iraqis in marsh restoration activities; (c) contribute to building up-to-date technical information and data on Mesopotamian marshes with an emphasis on biological resources and biodiversity issues; and (d) assist Iraq in development of national-scale marsh management programmes and Iraqi engagement in international treaties and wetland community.

One of the successful initiatives of the programme is the "Consultation Workshop on Mesopotamian Marshlands Management" that was held in Amman, Jordan last 19-22 June 2004 to identify the priorities and focal areas of interest to Canada. The workshop also attempted to straighten the direction and refocus the targets of the financial support. Workshop results focused on critical elements that are obviously needed: (a) ensuring acquisition of current information and data on the marshes; (b) creating a national database of credible and scientific data; (c) completing a National Marshes Plan and fully activating lead agency (CRIM) responsibilities; (d) establishing coordination of partnership/ donor assistance; (e) creating a capacity building programme with a broad group of government, university and NGO institutions; (f) identifying/training/hiring qualified staff for project execution; and (g) establishing a national university-based marshes research network and targeted marsh projects as



Representative from the Canada-Iraq Marsh Initiative (CIMI)

priorities. He also highlighted some of their limitations such as limited budget, three-year initial engagement, biodiversity-focused capacity building, and facilitation of regional and reconstruction issues.

The CIMI has 3 focal groups acting locally. They are: (a) the NGOs that contribute to the development of a Biological Resource Database; (b) the Iraqi Government and the CRIM that focus on updating the Ministry's capacity and training for natural resources (especially marshes) scientists and managers; and (c) the Marshlands University Consortium (MUC) that collaborates teaching and research programme development, and establishes networks for attracting external support/ sharing to universities with an emphasis on the marshes. Lastly, he outlined the next steps of their programme and some possible areas for collaborations that included: (a) biodiversity assessments; (b) wetland managers training courses, study tours in Canada-USA; (c) curriculum development; (d) support for Iraqi involvement in international science workshops; and (e) engagement in international treaties. He also emphasized that they would like to partner with UNEP in some of the identified initiatives and not to overlap and duplicate any existing programmes.

Dr. Augusto Pretner, representing the Ministry for the Environment and Territory of Italy, presented the Italian activities in the marshlands as well as recent achievements and plans. The Italian government has recognized their share to support Iraq in solving potable water issues and rehabilitating the Iraqi marshlands. Some of the activities that had already been carried out with the combined efforts of Italian and Iraqi experts, graduate students, professors and government professionals include data collection, and capacity building through training in Italy and Iraq and learning by doing. The Italian funds (16.85 million euro) had been allocated to five projects: (a) New Eden Project (1.2 million euro); (b) Water and Energy (0.95 million euro); (c) Immediate water projects (5 million euro); (d) Master Plan Inception Phase; and (e) Master Plan Compilation.



Representatives from the Italian Ministry for the Environment and Territory

He presented the activity components of the “New Eden Project”, which focuses on the integrated water management for marshland restoration. These included (a) the feasibility study that dealt with restoration and water asset issues in Southern Iraq; (b) the immediate actions that dealt with the monitoring the restoration of Abu Zareg Marsh, and the combined water and energy management in Southern Iraq; and (c) the Master Plan for IWRM for Southern Iraq.

Some of the main features of the completed feasibility study were: data gathering, water management system model, identification of immediate actions, action plan for immediate remediation measures implementation, criteria for cost estimate, and investment plans and priorities. In the restoration of the Abu Zareg Marsh, some of the key activities included: survey of the marsh area (including remote sensing, topographical studies, image processing, etc.), training of Iraqis on ecological monitoring (including water quality testing), hydrological monitoring, design of control structures, and stakeholder participation. Moreover, a feasibility study for potable water (i.e., identifying the feasible energy sources for water treatment systems to be set up) had been undertaken for the water and energy management component in Southern Iraq.

He mentioned the involvement of the Italians in the framework plan for marshland restoration established by the CRIM. Within the overall sustainable restoration plan of the Ministry of Water Resources and the CRIM, the Italian government's major part has focused on water studies and partly on ecological studies. Other ongoing actions in the "Master Plan for IWRM in the Marshlands Area" that have been agreed upon with CRIM and as specially requested by the Iraqi Government include the following:

- (a) Specific activities for the marshes including topographic surveys, environmental studies, mapping and GIS monitoring, numerical models, planning and infrastructure design;
- (b) Water assets and infrastructures for water supply and sanitation systems;
- (c) Extension of feasibility studies dealing with detailed topographic survey, analysis of existing assets, and social aspects of water and sanitation;
- (d) Shared common activities such as coordination with CRIM and other national institutions, analysis of local and legislative frameworks, integration model for Euphrates, Tigris, Marshlands and other water assets, and communication needs assessment; and
- (e) Development of financial plan and EIS to assist the Iraqi Government to procure financial assistance from environmental funding institutions.

Dr. Pretner also shared the needs that were identified by the Iraqi Government during the visit to Baghdad of Dr. Clini, the Director of the Ministry of Environment of Italy: (a) Establishment of center for restoration facilities (i.e., laboratories for water quality analysis); (b) Training programmes between Venice and Chibayish; (c) Training programme on water asset design and operation with Italian water utility companies; and (d) Application of the Italian methodologies for early warning devices for flood forecasting of the Euphrates and Tigris.

He also outlined the objectives of the donors meeting, to be held on October 24-25, 2004 in Venice, Italy and extended the IMET invitation to the governmental and non-governmental organizations that were present in the meeting. These included: (a) considering the priorities of the Marsh Arabs, Ministry of Water Resources, Ministry of Environment, and the Ministry of Municipalities and Public Works; (b) sharing the knowledge gained in the past years of working in Iraq; and (c) discussing the coordination of various on-going efforts (Italy, US, Japan, Canada, etc.).

Dr. Peter Reiss, USAID Iraq Marshlands Restoration Programme, presented the objectives, approaches, specific activities, and the implementation partners of the USAID-Iraq Marshlands Restoration Programme. The two most important philosophies of the programme are ecosystem management and rehabilitation, and social and economic opportunities for the population. He pointed out that in the design process of the programme, USAID recognized both philosophies to be highly integrated and intrinsically linked with each other.

The programme addresses the following components: (a) to assess the success of wetland restoration and guide government policies and decisions about re-flooding; (b) to improve the social and economic lives of the marsh dwellers; (c) to strengthen Iraqi commitment to marshland management; and (d) to reach national and international consensus on long term restoration strategies. He stressed that one of the things that had not been said but was true in the marshes and made it unique was its large indigenous population living inside of it, which was a very uncommon situation around the world. If these marshes are supposed to be or will be rehabilitated to some extent then this indigenous population should be included in every

steps as stakeholders and decision makers. Moreover, the USAID programme endeavors to include every group, every entity whether private sectors, government agencies, or universities that has been involved in the marshlands in the past or would like to be involved in the ongoing and future activities.

The programme's approaches to issues were based on the following: (a) collaborative planning with Iraqi partners – working with stakeholders in the design of the programme; (b) integrated economic development and ecosystem management - bringing the local people's voices and making it central to how the activities are carried out; (c) sustainability of programme initiatives - taking into consideration the importance of trust and transparency; and (d) development of local capacity in wetland management and improved governance, and income generation - focusing on capacity building and socio-economic elements.

Since the programme has started, several activities have already been completed such as the first technical analysis and development assessment of the marshlands (June 2003), mobilizing a large and diverse team of Iraqi and international experts (January 2004), developing an action plan (February 2004), and establishing a long-term presence in Iraq (March 2004). Some are continuously ongoing, which include working closely with international donor community, and actively implementing at national and local levels (until September 2005). He emphasized that the aforementioned activities had been possible and were successfully being implemented through the combined effort of its implementation partners consisted of the lead local ministries (MOWR and CRIM, MOE, MOA, MOH, MOPW), different colleges (University of Basrah), a research center (Marine Research Center), and other many organizations that were active locally and internationally.

He also pointed out that there were many uncertainties about the situation in the marshlands but they were able to overcome them since they started 1.5 years ago. In the conclusion of his presentation, he acknowledged the heroism shown by the people who were actually working in the field and their commitment to new Iraq. Their services would remake and build up the country from the bottom, and their continuous presence in the field would be crucial to understanding the real situation in the marshlands.

Dr. Ali Farhan, USAID Iraq Marshlands Restoration Programme, discussed how the integrated action plan for the marshland was designed, and also mentioned some national and marshlands activities in which the US has expressed its interest to cooperate with the Iraqi government and international community. The identified activities for the Marshlands were: (a) development of marsh management plan, which covers hydrological modeling of Tigris-Euphrates Basins and Marsh monitoring; (b) promotion of agricultural production and agribusiness which includes establishing date palm nurseries and large-scale crop demonstrations; (c) re-establishment of livestock and dairy production, which includes veterinary services, forage cultivation, and educational and income generation opportunities for women and girls; (d) support for capture fishing and fish farming, which includes aquaculture enterprises, fishing systems monitoring, and co-management of local stocks, and 'barbus sharpeyi' restocking; (e) extension of primary health care services, which includes establishing clinics and introducing health education activities; and (f) development of constructed wetlands for domestic



Representative from the USAID-Iraq Marshlands Restoration Programme

wastewater treatment, which involves trained Iraqi scientists and engineers in the design, operation, maintenance, sampling, and evaluation process.

He concluded the presentation by identifying some linking opportunities with UNEP. These included assessing satellite imagery, establishing soil and water national and regional laboratories, creating constructed wetlands for wastewater disposal, and developing a national water strategy.

Discussion on Item 5: Moving Towards Coordinated UN Action for the Marshlands

Dr. Mishkat Al Moumin, Iraqi Minister of Environment introduced Sheikh Sabbah Badr Al-Rumayed representing the Marsh Arabs, to share the true sufferings of his people and their perspectives on marshlands restoration.

Sheikh Al-Rumayed clearly expressed their difficulties in sustaining their daily lives caused by the drying of the marshlands. A significant percentage of the Iraqi population is composed of the Marsh Arabs living on fishing, planting rice, raising animal livestock. The indiscriminate destruction of the marshlands deprived them of these means of survival. While there are a number of restoration activities going on, the insufficient water supply limits these initiatives and leaves many of the marshlands in dry conditions and thus affecting their sustenance and living situations. He suggested having a direct field visit to see the real situation and condition of the marshland people. The community is ready to provide any form of assistance as needed and ensure security in the area. Dr. Mishkat Al Moumin responded that in God's grace, everything that was presented would be fully taken into consideration not only by her ministry but also by all concerned supporters. Dr. Klaus Töpfer agreed on the importance of having a direct contact with the community in concern and honoring those who are working actively in the field to make the lives of those people better and to give a perspective for those who learned to come back.

Dr. Klaus Töpfer emphasized several points that were raised in the presentations. First was the importance of having a consensus of plans of which integration and cooperation were both considered, and the advantage of having the UN Country Team in Amman showing that there was cooperation and not competition. Second was to be aware that donor's money is taxpayer's money, and called for an efficient and transparent allocation of these resources. He also called for clear assessments of available resources and on-going activities. Third, he believed that the two donor meetings, in Tokyo and Venice, reflected everyone's common interest, which is to listen to people on the ground and to demonstrate the true meaning of cooperation and coordination. The people's concerns must be heard and well taken, and each programme must learn from each other's consequences. All the line ministries together with other international and national organizations should come together and make full use of the existing coordination structure in Iraq. All resources ranging from technology, local people and professionals, and knowledge and experiences must be fully utilized.

Dr. Klaus Töpfer linked the issue to the USAID fishing projects and requested additional information from them. He also added that FAO might have some new programmes to contribute to the issue of fish restoration particularly endangered and threatened indigenous species in the area. These restoration processes are indeed invaluable strategies to bring the ecosystem back to its original condition if not to an acceptable state. Regarding the introduction of alien species, he emphasized that it could bring disaster to the ecosystem if not taken prudently. It is recommendable to be as close as

possible to what is available locally in the region in order to make this ecosystem approach successful. The consequences of altering species in a certain ecosystem are difficult. Dr. Farhan responded that there was a proposal to protect these indigenous and threatened species. He also added that the Center for Marine Life had been fully equipped to serve its purpose and species particularly 'boni fish' that was considered a fortune by the marshland people would be protected. Plans to restore and spread the said fish species will be discussed at the July 2005 meeting. He emphasized that the kind of fishing practices common in the marshlands must be taken into consideration and changed, if needed, through the coordination of the farmers and fishermen. On the cultural aspect, fish farms will be implemented and the fish movement to the north and south of Iraq will be monitored parallel with other activities done by the centre.

A representative from the Iraqi Ministry of Water Resources reiterated some key points: (a) Co-ordination is important - donor funds should be invested in a correct and efficient way. The entire programme, whether implemented by CRIM or Iraqi Foundation, should be fully coordinated and well studied to serve all the projects; (b) No overlapping and duplication of tasks – if possible, each project result must be an input to other programmes; (c) Full commitments of the line ministries – each ministry should be responsible for its own mandate and willing to cooperate as much as possible; and (d) Integrated Development Plan for the Marshlands – basic facilities should be provided (water supply and sanitation systems, sewerage systems, electricity generation, schools, health centers, etc.). He also shared that the Iraqi national budget allocated a huge amount for the marshland restoration and suggested to establish links between their programmes and UNEP. Dr. Mishkat Al Moumin, Iraqi Minister of Environment said that the issues raised were multidimensional in scope. She called for the reactivation of the CRIM as soon as possible to put everything in place and to be right on track. With regards to the coordination within the ministries, the Ministry of Environment, as the lead agency implementing the strategic plan for marshland reconstruction, continues to be highly integrative and cooperative in all fronts of its activities. Strategic alliances and memorandum of understanding exist among all concerned ministries (MOE, MOWR, MOA, MOPWM). And we all welcome their contribution and assistance. The minister re-emphasized that restoring the marshlands, the Iraqi's national heritage, was everybody's responsibilities, and it would remain in that spirit. Dr. Klaus Töpfer seconded that coordination and integration were crucial to the success of any programme. Sheikh Abbas Omar Al-Abady appreciated the various commitments of many organizations to the marshland restoration. He sought clarification about the palm tree farms and its unfair distribution opportunities. There are currently 2 farms in Al-Hammar Marsh but allocated only to one person. He further requested the concerned humanitarian agencies to look at the needy areas and to assure that there is a fair distribution of opportunities so that all resources will be directed to the interest of the local people. Dr. Mishkat Al Moumin, Iraqi Minister of Environment acknowledged the information given by Sheikh Abbas Omar Al-Abady and emphasized the value of people's opinion and integrating them into every programme on the marshlands. Dr. Farhan clarified that the idea of appointing one farmer to manage the palm tree farms was to plant for 3 to 4 years and not for him to own the farms. Starting with 1000 trees, it is expected to grow up to 7 to 10 thousand branches. These branches will then be distributed to other farmers free of charge through the assistance of the concerned ministries. The factor on which the selection of these farmers was based is the test results of the water salinity. He also assured that there was a fair dealing with the selection of the farmers, and it was done by foreigners and not by the Iraqis.

Sheikh Sabbah Badr Al-Rumayed raised the issue of the capacities of the NGOs that were working with the international organizations. It cannot be denied that there are both active and inactive NGOs. In this case, the image of working on the marshlands will not

be operative and cannot represent the realities in the area. To avoid biased activities, the people should be represented by a council or a group that can comprehensively state the people's interests and opinions. Aiming at this, the Council of the Marshland Sons was established. It will hold a Marshland Arab Forum to discuss the project proposals leading to outstanding and valuable results, which will be based on people's requests. He called for the integration of this forum to every programme for the marshlands. He also enquired about the scope of the UNEP Project. A great potential for tourism, archeological discoveries, and some other cultural heritage can be seen in the marshlands, as it is a place of many historical ruins. These aspects of the marshlands civilization must be included in the comprehensive development plan.

Prof. Takeuchi reiterated the willingness of the government of Japan to cooperate in all fronts of the activities in the marshlands. He emphasized the real meaning of marshland restoration. It is an integrated restoration not only of the surrounding ecosystem but also of the human lives. He stated the importance of introducing the concept of agricultural development and fisheries. However, some conflicts between the conservation of the ecosystem and utilization of the marshlands must be resolved first to avoid antagonistic approaches. Japan's experience in the case of the 'Kushiro' wetland at the northern part of the country suggests the reality behind these conflicting ideas. There is a need to find a better solution on how to harmonize these two different directions, and a better way for the local people to benefit from the marshlands while protecting its integrity and developing its condition. In this regard, establishing common principles, and benchmarks for marshlands restoration would guide all organizations towards common goals.

Mr. Lakis Papastavrou raised three issues:

- (a) The available funds for Agriculture – it is the only sector that attracted the least amount from the donors. Therefore, whatever funds that has been allocated by the UN Trust Funds for this cluster is comparatively small with other clusters. Other organization such as USAID has very limited funds for agriculture. Therefore, agricultural support should be strengthened as well as the solicitation from the donors for allocation funds.
- (b) The sustainability of the overall programme for the marshlands lies on the extent of which all the activities in the lower south of the marshes are coordinated, in addition to the participation of the line ministries particularly the Ministry of Agriculture.
- (c) The introduction of tissue culture. Funds allocated for planting and multiplication of seedlings will eventually be diverted to more improved varieties of dates and palm trees safeguarding them from disease. In the past, the Iraq's dates and palm trees suffered from a major disease. The government used to aerial spray chemicals, which at the same time killed useful wildlife and a lot of biological systems. After the war, CPA invited FAO to spray but they refused to do so knowing the consequences it might cause to the ecosystem.

Dr. Farhan responded that representatives from the ministry and USAID staff are working together to coordinate the activities regarding dates and palm tree plantations. The deputy director moves with the USAID team to guide them to their target areas. Guidance in farming is also conducted by the representatives from the ministry.

The World Bank shared what the bank would be doing as far as marshland restoration is concern. The World Bank is designing a regional programme about the coordination of the Shatt Al Arab and the Northern Gulf. It is necessary to consider the requirements in time, space and quality of water that flows in the Shatt Al Arab and the gulf, as it is the source of economical growth of Iraq and Iran. If the health and sustainable development of these final downstream elements of the system is not assured, there will be further degradation that will further undermine the sustainable development in the marshlands and upland portions of river basins. It is highly feasible now to develop a common vision

with a short and long term vision for Iraq's water resources and work with the Iraqi counterparts to the level on which they can be able to sustain their goals. He seconded on the development of benchmarks and indicators. Once the action plan has been unanimously agreed upon by all concerned stakeholders, everything will fall in place, every donor, every multinational institution can begin to implement their plans or continue the works that they have started. He called for the development of common visions for the Iraqi river basin and the marshlands, and resolving some transboundary water issues between Iran and Iraq for the sustainability of all initiatives.

Dr. Mishkat Al Moumin, Iraqi Minister of Environment, reassured that all the issues raised would be considered and studied further. Approaches to these issues will be integrated to both ongoing and future projects. Regarding the coordination issue, the MOE has established a committee along with MOA to welcome other cooperation initiatives from other ministries and outside organizations.

Day 1: Closing and Concluding Remarks

Dr. Klaus Töpfer concluded the session by summarizing several main points:

(1) Development of a common vision.

The involvement of UNEP in the development of a common vision reflects its motto of environment for development. The environment should be instrumental to development, be integrated with the people, and be a component of sustainable development. The marshland people and those who want to return to the marshes must not only be informed that they will be assured of a stable ecosystem, but also of a sustainable livelihood and needed infrastructure.

The initiative of holding a Marsh Arab Forum in Nasseriya is a significant sign of people's interest to get involved in the marshland activities. Dr. Töpfer touched upon the issues summarized by the Marsh Arabs and called for their potential integration to the project. These people must be reintegrated with their culture, and their situation must be taken into consideration based on how they would like to live. However, it is very crucial not to give them a wrong expectation of what is possible and what is not, as well as the existing limitations. The common vision that should be intrinsic to every development initiative is the importance of environment protection and the fight against poverty. Marsh Arabs should live in an environment that can be able to carry and support them. All initiatives directed towards the marshlands should include its people.

Assessments of activities should also be part of every programme. A sustainable development impact assessment may be needed to keep track of what is ongoing in the field and to harmonize the 3 pillars of sustainable development with the overall comprehensive plan for the region.

(2) Linkages between culture and people.

The Marsh Arab Forum would be a good instrument to establish the interrelations between the marshlands and its people. Other concerned organizations, of any type, should be given a chance to develop and serve the community at their utmost capacity with parallel supports from the international community that has the ready technology,

experience and knowledge. Stakeholder participation and direct contact with the community is widespread, and not only unique to the marshlands.

Oppositions against NGOs exist, but we should give a chance to society to develop these grass-root structures. This is not unique to the marshlands and to the region. There are comparable concerns in other places, and it is good to listen directly to the people.

(3) Data management and information development.

There is a need for a collection system and a clearinghouse for data so that everything can be fully utilized. Ready to disseminate information should be based on these collected data and be understandable and usable for the local people and other users. Water and sanitation pilot initiatives should be cross-fertilized by available relevant information and be included in the programmes of concerned government ministry. Available information must be collected and systematically organized to assist any marshland programmes in the setting up of solutions.

(4) Comprehensive capacity building.

Capacity building in all levels should be included in all programmes. The success of the project is linked to its sustainability, self-sufficiency, and the extent in which these developed capacity can be fully utilized. It is also crucial to learn from each other's experience and to have a feedback system in monitoring the progress of a certain programme. Collective stakeholder involvement, learning by doing, information exchange, and knowledge sharing are some of the components that a comprehensive plan for the marshlands should have.

(5) The ownership of the people.

People are contributors. Children and women should all be included in the process. We can learn from each other and integrate these lessons learned in the project to have a feedback.

(6) Policy development support

The existence of sound policies and strengthened institutions assures the progress, continuity and the overall success of the above action strategies.

Agenda Item 6

Session on Project Implementation: Thematic Structure

The second day of the round table meeting consisted of two separate sessions. These included the thematic point of view and the institutional instruction for project management with a special presentation on CRIM's structure. Dr. Chizuru Aoki presented the agenda for the morning session.

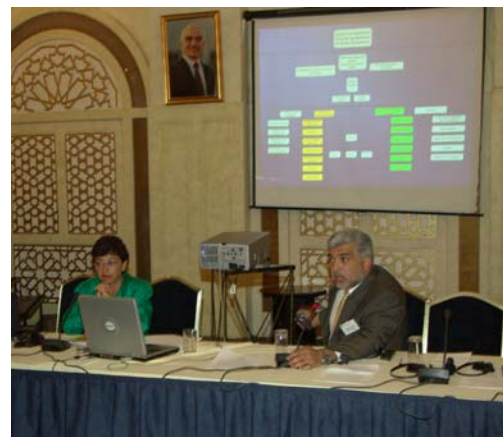
On the first day of the Roundtable Meeting, the issue on the organization and role of the CRIM was raised. In this regard, Dr. Azzam Alwash, The Iraqi Foundation, presented the CRIM structure on behalf of the Ministry of Water Resources (MOWR). He and Dr. Edward Theriot (former CPA adviser to the MOWR) had been involved in the conceptualization of

CRIM as well as its organizational structure and restoration plan for the marshlands. The presented structure was based on Dr. Alwash's own understanding and perspectives.

The idea in the creation of CRIM was initiated in the middle of 2003 under the auspices of the MOWR, and considering the advice from the US Army Corp of Engineers, as it became apparent that there would be many parallel on-going efforts. CRIM has gone through systematic re-organizational processes and became an organization with an existing flexible framework, which can respond to any need as it arises. The members of the CRIM as well as the members from the MOE are actively involved in the regular monthly visits that are supported by the Italian Government and the USAID for conducting observations on physical properties of water and other ecological observations.

Conceptually, CRIM reports to the Council of Ministers from the MOE, MOA, MOMPW, and MOOIL who have all signed with MOWR to cooperate on various projects associated with the marshes. The ministers are supposed to meet and discuss various issues that are addressed to them by CRIM. The Council of Ministers makes decisions on behalf of the Government of Iraq.

The CRIM Management Board, under the chairmanship of the former Minister of MOWR, has representations from various ministries, which have signed the Memorandum of Understanding (MOU). There also exists a donor coordination committee that is tasked to report to the CRIM Management Board, and an International Technical Advisory Panel, which include scientists from all over the world as well as from Iraq. The idea here is to create CRIM as an organizational body without any conflict of interest on issues related to the works that are being done. A team leader from the MOWR reports directly to the management board.



Representative from Iraq Foundation

CRIM consists of 4 major sections: (1) Hydrology and hydraulics, which conducts research projects and review the work in helping the Iraqi experts/engineers to practice what they have learned from the foreign experts (such as the Italian government, USAID, international organizations, and hopefully UNEP) and also to work in harmony with them; (2) Socio-economic study, which focuses on people and economy. There are various blocks such as fisheries, and human health, each of which is to be run by a ministry or a donor nation that is interested in sponsoring a project within the scope of a certain block. Part of the idea is to involve people coming from various universities in Iraq who have the technical knowledge and make them work or collaborate with professors from the overseas. Therefore, the idea is to integrate various knowledge that will help build the capacity of the Iraqis to eventually have a self-sufficient organization. Eventually, CRIM is expected to become a center that is self-sufficient and independent; (3) Environmental studies, which includes ecological, biological, and water and soil quality studies. Each of these sections will be supervised by a staff from the MOE, and by various representatives from ministries who are involved in activities on the marshes; (4) Press section, which is the most important aspect of any fund raising organization. It is in-charge of coordination for international conference participation and so on.

Dr. Alwash emphasized that no ministry is above anybody else. Everybody's work is needed and crucial in all endeavors. The MOWR has been leading the efforts for the marshes so far,

as it is included in its mandates. To have the marshes rehabilitated, there is a need for sufficient water. To aim for a long-term sustainability of the marshes, creation of mechanical flood is required as the marshes evolved around the concept of periodic flooding even before the era of dam building started. Fifty-three dams have been built in Turkey in the last 10 years and more will be built. This means that the occurrence of annual floods that had threatened Iraq until 1975 is no longer an issue. Iraq, at present, is already a water-deficient country. Unfortunately, the country was not able to cope with that fact. Hence, in order to have sustainable marshlands, there is a need to artificially create floods coinciding with the annual spring floods that used to occur in the past, between the months of February and May. In this regard, the efforts of MOWR are going to be crucial for the long-term management of the marshes. The entire marshland basin needs to be managed based on water that will be released and utilized. It is also crucial to understand that coordinated release of water from the dams has to occur at the same time with the release of water to the channels connected to the marshes, in addition to the volume needed for agricultural production. Building the capacity of the MOWR to strengthen their own competence will be very essential to sustain their works on the marshes, and deliver the right services to the people of the marshlands.

Regarding the water studies, there is an ongoing effort funded by the Italian Government. There is coordination in dividing the tasks, and assurance that all the funds are allocated and utilized efficiently. These are the primary intentions of CRIM, to divide the tasks, to coordinate and cooperate, and to ensure everybody is working in harmony and that all the involved ministers will have the opportunity to participate and have their capacity strengthened.

USAID is sponsoring a lot of work in socio-economic and ecological studies while the Italian Government is sponsoring a lot of work in both ecological and hydrological studies. And eventually, UNEP is fortunately going to come into the fold and help in creating the overall restoration plan for the marshlands.

The marshlands restoration plan, as it stands now has three major phases: (1) short-term – restores how much of the marshes can be saved and rehabilitated based on the existing water resources and extends to building infrastructure required by the people. The marshlands people do not just want their marshes back but to have a better standard of living. Facilities and infrastructure for transportation, health and veterinary services, education, Internet, telephone lines, etc., must be provided. Ensuring that their desires are clearly and fully incorporated into this plan is one of the components for success; (2) medium-term - focuses on how to expand the restored marshes and their lateral extent by making more water available for Iraq through identified comprehensive strategies. Since 92% of Iraq's water is used for agriculture, one of the main strategies is to improve irrigation methodology (similar to the Sumerian technology) in Northern Iraq; (3) long-term - works on strategies to share the available water to the overall basin.

Discussion on Item 6

Ms. Rania Dagash, Programme Director, IOM, asked for clarification on which level CRIM operates, whether Baghdad or governorate level, and how CRIM ties and links with communities that are unable to see the community structures in these 3 governorates. Dr. Alwash answered that he did not get a chance to show the layers on detailed section of the CRIM structure. He explained that the CRIM has offices in Basra while MOWR has offices in every governorate. MOWR is one of the first ministries

created by the British in 1921, so they have existing offices in almost every small town in Iraq. They have sections in Almarā and Missan, Basra, and Nasseriya and hold periodic meeting in Baghdad to gather and talk. As for the method of interaction with the community, villagers, farmers, and the Sheikhs go to the MOWR whenever they need something. An example of this is the head of the irrigation office in Nasseriya working on how to deliver the available water to different points in the area. He cited that the CRIM is also in the process of encouraging the people of the marshes to organize and make sure that their voices are heard as also suggested by the Sheikh. This initiative will be discussed in the coming Marsh Arab Forum in Nasseriya. He also mentioned that there exists a parallel organization in Missan, which is beginning to learn how to use the tools available for them in new Iraq. However, there is a need to assist them on how to use political instruments, which did not exist before.

Ms. Rania Dagash enquired about whether the location where the information about the CRIM is kept compiled and maintained was in Baghdad or Nasseriya. Dr. Alwash responded that since everything is still centralized in Iraq, all information is being kept in Baghdad.

Dr. Kais Habib emphasized that WHO is interested in the field of health and environment. He said, however, in the presented programmes, there is no project that deals with the wellness of the population and health services made available for them. He believes that health is important and vital to restore the community and should be considered in any action that the CRIM is going to carry out. Based on his experience before joining WHO, he was in the Ministry of Health and served as a GP Doctor in Chibaysh area in 1971, and at that time the health center was in a very poor condition and the diseases were prevalent especially water borne diseases. Joining the post was a punishment for a doctor like him due to the severe condition of the facilities and a heavy caseload. But the people were wonderful as well as the surrounding environment. He felt very sorry when he lived in that area as his services were limited by many reasons. In this regard, he said that he would like the CRIM to give emphasis on health issues of the marshland people. Dr. Alwash agreed on the past situations of the people in the marshlands. The services in the South to date are still inadequate and very insufficient to satisfy the people's needs. He also mentioned emphasis should be given not only to the health of the people, but also to the veterinary health. Water buffalo, for example, is very important for the economy of the Marsh Arabs, which as he noted, is another aspect that seems to be forgotten. He explained that USAID have created positions for veterinary doctors who will go around the marshes to offer such services to the people. He mentioned that he assisted USAID in appointing a veterinary doctor in Chibaysh. At present, the position is available and is empty for almost 3 or 5 years. These doctors have to work hard and in need for the goodwill of the international community. He also reiterated that the marshland people have been forgotten throughout their existence, especially in the last 15 years, and have been punished severely for participating in the 1991-1995 war against the former regime, which precipitated in the drying of the marshlands.

Sheikh Sabbah Badr Al-Rumayed said that since the project has a specific timeframe and limitations, he called for a clear action plan for educational purposes and sharing information to the local people of the marshlands. Educating them of the goals and activities of the programme specifically of health will be crucial to a successful and full acceptance of the people. Dr. Alwash agreed on the idea that they must present their plans to the people before it will be finally created. He emphasized that they are in the process of consolidating and integrating what they have and what is made available for them. In the plan formulation process, they will go around, get involved, and use all the opportunities to obtain input from the people. The forum in Nasseriya will be a good chance to start with. They will also try to work with the communities, and even though

they have limited resources as an NGO, they can provide more flexibility than the government. He said that they are looking forward to working with the people of the marshlands. Currently, they are working with an organization in Missan and Basra although no communication has yet been established between them. He also mentioned that there is coordination between the government, NGOs and the international community. They are trying to help the CRIM to accelerate the creation of a framework that is needed for the efficient management of the marshes.

An Iraqi representative stated that during the period of water deficiency in the past years, there was no sharing of water to cover and sustain the Al-Hammar marsh and the Abu-Zareg marsh area. To solve this kind of problem in the coming season, water demand issues and activities should be well coordinated with MOE. It is a fact that the water sharing is not enough due to problems related to population and other obstacles. Overcoming these problems will better restore the marsh areas. The people of the marshlands expect that restoration of the marsh will increase the volume of water available for them, for the marsh in general, and for other living things. The release of water should also be sufficient enough to wash salts that will eventually improve the quality of soil and will result to an increased number of fishes and animals. Dr. Alwash responded that there is a significant scientific problem ahead of us. To rehabilitate the biodiversity as close as possible to the condition it was once, aside from creating artificial floods, it is necessary to provide the necessary nutrients, clay and silt. They have not even come close to solving this issue. Last year was a very rich water year, but the MOWR have faced one of the major problems – they did not know the extent of the marshes that could be restored and therefore were reluctant to restore as much as they could. MOWR also does not want to create human catastrophe by flooding the areas and giving the people the impression that all the flooded areas are going to be maintained. This will only result in people coming back, only to suffer from yet another migration when the area dries. It is in fact difficult to deliver water into these marsh areas. MOWR is hopeful that they will resolve these major issues by the end of this year and will approach the community, and propose and discuss the plan within the coming 3 to 4 months. Initially, they are trying to reach for some sort of agreement as to where to start and what to prioritize. He added that the people of the marshlands have voted with their own hands as to where they want the marshes be restored, and these areas have been re-flooded by breaching embankments and by destroying dams in specific areas they have chosen. This has solved half of the problem of MOWR and other involved ministries and organizations. There is no need to decide which areas are to be restored because the areas that have been re-flooded over the past years are probably larger than the area, which can be restored in realistic terms. MOWR is in fact looking forward to working with Dr. Alwash and with other Iraqi scientists who will help them to understand the local conditions and eventually come up with a comprehensive plan. The realization of the plan by definition is going to be flexible since nothing is fixed in Iraq, and it will have the flexibility to allow changes in direction over time.

Ms. Rania Dagash shared information regarding the scientific workshop organized by AMAR on the 25th of September 2004 in Nazzariya. However, she was not sure if it is well coordinated with other organizations or not, particularly with the CRIM. Dr. Alwash replied that AMAR is trying to help in spreading the information available. He appreciated the efforts of AMAR for such initiative, and commented that the credit should go to those who were behind the creation of such forum.

Mrs. Monique Barbut stated that it is IETC's clear intention to collaborate with CRIM once the project starts working on the ground. She welcomed any kind of existing coordination mechanism in Iraq and was hopeful that the discussion held on the first day of the meeting clarified a certain number of questions.

She explained the session's outline and emphasis on the technical aspects of the implementation of the project. She reiterated the goals and objectives of the project and pointed out that they would share how and what IETC plans to do, and how it is going to deal with the issues raised thus far. Comments and criticisms were welcomed because it is through the feedback process that the concept of planning and implementation can be improved. She also reiterated the focus on EST implementation, as it has been the main puzzle in the overall presentation of the UNEP project, particularly for the UN Trust Fund.

Dr. Vicente Santiago of UNEP presented the remaining four activity components of the project. These included data collection and baseline analysis, capacity building of Iraqi professionals and policy makers, EST implementation on a pilot scale, and raising awareness on Iraqi marshlands and management efforts.

For the promotion of ESTs, the areas of application for the pilot projects will be focusing on the provision for drinking water, sanitation, and wetland and water quality management. IETC conceptualizes the pilot projects with three programme phases: (a) planning (road map); (b) implementation (undertaking); and (c) integration (assimilation). The planning phase includes: (a) the site categorization incorporating single or combined or both approaches for pilot implementation; (b) the process consisting of the mechanisms for capacity building, assessment of usefulness, and feasibility for implementation; and (c) the cognition including technology evaluation and assessment, identification of sites and technologies, and environmental and water quality assessments. Each of the phases involved in the planning will be supported by inputs from the Marshland Information Network (MIN), training programmes, and other available information and assessment tools for the project. The implementation phase includes the mechanisms for financial and project supports, setting-up and coordination, logistical arrangements, and security. In this phase, the involvement of local and international expertise will be crucial to the EST application as well as the installation, monitoring and assessment of performance. The integration phase consists of analysis and integration of achievements, and pilot case study results. In this phase, IETC will look at: (a) success in achieving the set goals and objectives and to what extent; (b) identification of problems and solutions put in place to solve them; (c) sharing of lessons learnt and experience gained; and (d) future recommendations. Prognosis and feasibility study for continuation and replication will be conducted as required through the completion of the project. Necessary follow-ups will also be done to ensure the project sustainability.

Dr. Santiago also presented the overview of the project's programme for the capacity building component including its objectives, scope, target audience, training courses, and its mechanism. The capacity building consists of three components: (a) technical – includes ESTs for drinking water provision, EST management methodology and implementation, sustainable sanitation options, and phytotechnologies; (b) policy and institutional – includes supports for water and environmental protection, water and culture, IWRM and sanitation, organizational framework, and regulatory, social and economic instruments; and (c) data handling – includes the knowledge management backed by the MIN system and Geographical Information System (GIS), and study tours and field demonstrations.

Mr. Robert Rodriguez of UNEP presented the details of the second component on data collection and baseline analysis. These included: (a) data and analysis (information network); (b) GIS and remote sensing; (c) environmentally sound technology information system (ESTIS); (d) experience of IETC; and (e) benefits and specific activities. He reiterated that the information technology component plays an important role to manage the information that will be produced, and make it readily available and accessible for decision making and

planning. There is an obvious need to integrate all the data and analysis of on-going hydrologic and biodiversity, water quality assessments, monitoring and reporting on re-flooding and ecological changes, project results, and available information from partners. Eventually, the existence of an information network will establish the baseline conditions of the Iraqi marshlands.

The GIS and remote sensing will be very important for the decision-making component as they support the project through: (a) monitoring the distribution of the ongoing re-flooding and the nature of the associated ecological changes taking place in the marshlands; (b) creating and using baseline data to determine suitable technology and locations for the pilot project; and (c) monitoring the future evolution of the marshlands ecosystem in response to the re-flooding and the project activities.

IETC's own ESTIS will facilitate the following: (a) creation and management of information websites on the Internet; (b) sharing and searching of information across multiple ESTIS websites; (c) publishing of information by non-web designers; and (d) decentralized management of content.

He cited some of the existing ESTIS frameworks and uses in many sectors. Some of the envisaged benefits of the second component are: (a) establishment of a forum to share information among stakeholders; (b) establishment of a common point of access to tool for technical management and assessments; and (c) identification of solutions and the development of common strategies and partnership among stakeholders. He also identified the activities that are on going and will be conducted such as ESTIS software enhancement, hardware establishment (1 regional and 4 local servers, 5 computers, printers, GIS station), ESTIS and GIS workshops, actual MIN operations and continuous technical support.

An Iraqi representative enquired whether the on-the-job-trainings that IETC plans to provide are targeted for the people in the marshes or nearby cities. Dr. Vicente Santiago replied that the OJT are for those who are going to be directly involved in the implementation of the pilot project, and who could be directly working in the field. These are the community and support people, who are from the academia, research centers, locally based organizations, etc. He mentioned that they are open for community participation as well as for other active organizations, and centers which are competent to be partners in any activity components in the implementation phase of the project.

Ms. Rania Dagash raised the question regarding the actual implementation that will be put on the ground. She stated that all projects have frameworks that define their action plans, etc., however it has not been easy for the past few years to put these frameworks into real action and implementation. There is a very limited number of NGOs on the ground; there is a limit of how much one organization can do with the ministries. In this regard, she asked IETC how the implementation of all the project stages especially the monitoring is going to be carried out. She wanted some clarifications in the setting up of needed project components in the field, the mechanisms for working with NGOs, and the existing ministerial supports for this programme. She also added that the presence in Amman and Kuwait would be helpful as most of the NGOs and UN teams are present there. Mrs. Monique Barbut replied that everyone is facing the same issues. She explained that the trainings that IETC are going to be conducting will be limited to a certain number of people, who will be carefully selected. She also added that a field-demonstration outside of Iraq would be implemented in a location having the same characteristics as the Iraqi marshlands so that these trained people will know exactly what to do as they return to develop their own strategy. Assistance from international

experts such as from IETC will depend on how well the situation improves in the marshlands every now and then. The selected people who will be involved in the implementation phase will be specifically trained, and are expected to do the same trainings and implementations, if not better from what IETC and its partners will provide. The location will be chosen carefully in such a way that it has similitude to the ecological system of the marshlands.

Ms. Rania Dagash asked from where the people to be trained would be selected (e.g., from the NGOs or from the Ministries). She emphasized that these people might be consultants or whatever they are, but certainly not UN staff. She requested for a definite qualification or requirements, and for a mechanism on how these people should be selected. Mrs. Monique Barbut replied that a National Coordinator in Iraq will be appointed, a person who will be the overall responsible for selecting the best expertise needed in the project. These people must have the capacity to do the training, and must be consist of a wide range representative of different stakeholders like NGOs, villagers, governorates, and staff from the ministries. However, she emphasized that they may have to train more people than the actual needed number to be sure of achieving tangible results and have a good representative of people without having a priori of who should it be. The national coordinator will help UNEP to choose these people depending on a certain number of criteria, and will send them out to IETC to undergo a complete training in addition to some demonstration trainings.

Ms. Rania Dagash commented that the idea presented would only be partially realized. She asked if UNEP would increase the frequency of its presence in Amman and Kuwait for the coordination of this project. Mrs. Monique Barbut replied that UNEP has already placed someone in Amman on a permanent basis. She also mentioned that they have already established a contact with UNOPS in Amman and in the process of putting everything in order based on the UN system.

Mr. Koinuma of the Ministry of Foreign Affairs of Japan raised two questions concerning: (1) data collection methodologies that will be used by UNEP to efficiently collect needed information not only from Japan but also from all over the world. He emphasized that UNEP needs to have a mechanism if it will collect and distribute information, which includes ESTs developed by the private sectors; (2) the number of people who will be involved in the development of database that will be built by IETC in Japan for the marshland information network system. Mrs. Monique Barbut explained that IETC has a significant background on information management for it has been handling all kinds of EST information for the last 10 years. She added that what will be put up in Iraq is a proven technology. She invited everyone to come and see IETC's database technology for evidence of its experience. She emphasized the importance of putting up a technology that is simple, easy, and which has been proven elsewhere in a location with the same kind of ecological condition in order to reduce the research scope. Mr. Robert Rodriguez added that a huge directory called MAESTRO already exists, consisting of 1,500 technologies from all around the world. He also announced that within a couple of weeks all EST information available for the Marshland Information Network (MIN) would be finished. He assured that all MAESTRO information, the database on EST would be all included in the MIN. As for the team behind ESTs for MIN, it is consist of 3 fulltime support staff, working for a round the clock basis and continuously operational.

Mr. Mohamad Hamasha of WHO Iraq shared his experiences, the problems and constraints in implementing a project. He cited that not all that was written in black and white could be implemented on the ground. Hence, it is recommendable to have a regular re-evaluation of the project, to improve and re-orient project strategies if needed. Mrs. Monique Barbut expressed her agreement in the presented suggestion. She once again repeated that they would make a complete re-assessment after six months, to be abreast

on the status of the project, its achievements, its confronted difficulties, and its implementation. She further re-assured that IETC would be flexible in considering what is ideal to the project and what can be done in reality. She mentioned that this project is indeed an investment project focusing more on soft technologies, and expressed her personal conviction on the project's high probability to succeed in all its endeavors. She also added that this project does not require much of a specific scientific expertise to be able to manage and sustain. What should be intrinsic in the project is its capacity to re-assess whether the choice is the appropriate technology, or whether the selected location for the pilot implementation is the right place.

Mr. Hamasha inquired if setting criteria and standards for the region particularly in the marshlands is included in the goals of the project. Dr. Vicente Santiago clarified that these standards and criteria would be used for the selection and implementation of appropriate ESTs. He said that needed parameters have already been defined and will be applied to assessments of water quality and sanitation technologies. These parameters will be based on what Iraq has in terms of national parameters, standards and criteria; otherwise it will be taken from WHO or any other international existing standards. However, he assured that they are not going to establish standard, criteria and parameters for the marshlands.

Engr. Neda A. Hussain, Director of Physical Planning of Thi-Qar, MOMPW, said that everyone has a plan for the marshlands. Like Canada, Italy, US, and UNEP, and even the southern governorate of Thi-Qar have plans for the marshlands. She suggested to establish a coordination mechanism for all the programmes directed towards the marshes and to promote cooperation among all active organizations working for the marshlands. Mrs. Monique Barbut reiterated, referring to the Italian Government presentation, that there will be a coordination meeting for the marshlands in Venice in one month. All donors and concerned ministries of Iraq will be gathered in addition to the marshland people. She expects that the meeting will be able to identify active players in the marshlands, divide the tasks, and assign who will take the lead for each planned activities. Presently, there are many existing ideas but none of them has reached the field yet. One should take a lead to organize the activities in the marshlands. Therefore, she is hoping that in the coming meeting in Venice, what to do and how to do it will be discussed in detail.

An Iraqi representative expressed his personal contentment of the number of activities lined up for biodiversity and water quality. However, he thinks that the human population and its wellness are not well considered in any of the presented plans. He believed that it is not the scope of the UNEP project, but as a UN agency, it can relay the issue to the concerned organizations such as WHO and UNDP to carry out a project on human population (i.e., census, fertility rate, health and sanitation condition, schools, health services, centers availability, etc.), so that a clearer picture will be visualized. Mrs. Monique Barbut responded that they are implementing the project for the wellbeing of the people and its main goal is to inform the people of the problems faced by the marshlands and their whole society as a whole. She recognized that problems on sources of potable water for drinking consumption, sustainable sanitation, and agricultural and fishery crises are commonplace. The UNEP Project will work for the welfare of the people, however, within its limitations and scope. Mr. Hamasha responded that WHO in cooperation with the MOH of Iraq, has an ongoing project on population, information development and health components. The project is called "Health Information System." In addition to that, there is an ongoing project that deals with the severity of disease related to the marshlands as part of WHO programmes for Iraq particularly for the marshlands. WHO and MOH will provide all the information and technical support needed by UNEP and make them available for use. Mr. Robert Rodriguez added that he was involved in the structural development of the database for the health information

system of WHO. WHO's system is 100% compatible with that of the IETC. In this regard, he will be collaborating with the WHO information system management team to integrate all the available information in their system into the MIN. He assured that there will be no duplication of information and that everything will be integrated.

Mr. Hamasha asked whether there existed a plan in the water quality management and assessment component of the UNEP Project to establish water quality monitoring laboratories and supply necessary equipment. He also asked if the scope of the project is limited only for training the professionals for monitoring and sampling, and if there is any plan for any portable field-testing. He announced that WHO has received an approval from the UNDG Trust Fund Project for a related project and that the schedule of its implementation would be soon discussed with the MOE. He also added that the said project would include 15 governorates in central and southern Iraq, since the northern governorates have already established laboratories during the previous WHO project. Mrs. Monique Barbut explained that in the UNEP project, issues on water quality are not included because USAID and the Italian Government have already included these components in their activities. UNEP will only provide portable equipment that is necessary for the provision of clean water and sanitation. The analysis and laboratory testing components of the water quality sampling and monitoring are also part of the project developed by the Italian government and USAID. She pointed out that the portable equipment that IETC will put up is one of the implementation investments that they are intending to provide. Dr. Vicente Santiago added that it is also important to deal with certain issues related to water quality and sanitation. Nevertheless, he emphasized that for some specific analysis, the support from existing local and international laboratories will be needed, and they have already allocated the right financial support to undertake such steps. IETC are going to rely on collaborating partners to do what is required and needed.

A representative from Thi-Qar University shared some of his views regarding the disasters that are currently facing the marshlands and its people in general. Marshlands' soil has been highly degraded, affecting the agricultural productivity of the area, and the livelihoods of the people. He called for a coordinated effort among the specialists and concerned organizations particularly those from different universities to address this problem. These universities have opened centers and begun cooperating with the AMAR Foundation. The university is looking forward to the conversion of their center into a scientific faculty specializing in all types of marshland issues. However, this can only be achieved with the help of other countries through trainings and fellowships for their staff. The marshland people are 25% of the university population, thus providing and strengthening of such center will improve scientific research for the marshes according to international standards and urgent issues. Setting up of experimental stations at the university will also enhance the studies being conducted for increasing the production of the rice and dates, which will eventually resuscitate the economy of the marshlands. Mrs. Monique Barbut ensured that all the issues shared would be taken into account. She reiterated that UNEP would appoint the national coordinator for Iraq, who will also be in charge of the OJT component of the project implementation. She assured that all information presented would be relayed to him, so that he can establish a dialogue between the people from the academe.

Mrs. Monique Barbut concluded the above discussion and introduced the succeeding session that mainly focused on the institutional structure of the project implementation. It is expected

that a set of comprehensive ideas will be formed and served as the outline or framework for the project implementation. She recalled that UNEP is based in Nairobi and that it has a unit tasked for administrative arrangement called UNON. However, because of the project location and nature of its component, UNON agreed that it would not be in any position to deal with the complete implementation of the project. Instead, UNEP has signed an agreement with UNOPS, which has more experience in dealing with such project. She made it clear that UNEP will count on UNOPS' capacity to do its task and provide them the support needed throughout the implementation. She introduced Mr. Chakib Belhassan of UNOPS. He gave an overview of the services offered by UNOPS to every UN agencies particularly to those, which has been actually working in difficult conditions.

Mr. Belhassan expressed his gratitude to be part of the implementation of this challenging project. He restated that coordination between the UN and other organizations is crucial as highlighted in the previous discussions to achieve the challenging goals of this project. He described that UNOPS is a body created by the general assembly to provide management and implementation services to the UN system. He emphasized that it is a service-oriented body and does not have substantive mandate. It provides services to the UN system, international financing institutions, and bilateral organizations particularly working with developing countries. It also works for any government by providing different kinds of services that facilitate and ensure the implementation of programmes and projects. UNOPS is headquartered in New York, and holds offices in Geneva, Nairobi, Japan, West Africa, Latin America and Bangkok.



Representative of UNOPS

Mr. Belhassan discussed in detail the range of services, context and level of interventions that UNOPS offers. He summarized major services, including project management, loan administration and project supervision, procurement of goods and services and advisory services (e.g., monitoring and evaluation, design, and implementation). He said that UNOPS provides services on global, inter-regional, regional, national, local, and grassroots levels for both humanitarian and post conflict rehabilitation. He emphasized that UNOPS offers services tailored-made for the needs and requirements of its partners.

He described what UNOPS have taken part in some of the operations in Iraq, such as the Oil for Food Programme from 1997-2003, where it dealt with mine actions, provided services such as support to IDPs, urban water and sanitation, and field administrative support and rehabilitation. While in 2004, it was involved in several clusters within the UNAMI structure, entrusted by clusters and UN agencies for implementation services that deal with water, sanitation, etc.

He then highlighted some of UNOPS' capacities within Iraq. UNOPS has established its presence in the country especially at Erbil in the north, Baghdad in the center and Basra in the south. It was involved in managerial programming, administration and financial support, and backstopping from Amman and Geneva. UNOPS has provided a network of staff operating within the municipality level in agreement with the local authorities and had taken part in the establishment of a network of local partner organizations consisting of international and national private companies.

He explained that UNOPS in Iraq had contributed to the use and development of operational tools adapted to the needs, within UN rules and regulations. It has demonstrated the important use of local capacities, and provided support to the growth of local public and private networks. UNOPS has also demonstrated its ability to rapidly mobilize a full range of expertise in the field as required. It also provided a large and varied experience in post-conflict implementation to different countries in Africa, Asia, East Europe, and finally, a flexibility to tailor implementation strategy to the changing needs.

He also touched upon other operations of UNEP/UNOPS related to Iraq. UNOPS has provided support to UNEP in the logistics of organizing assessments as well as in handling large rehabilitation contracts. It also took part in the cleanup of hotspots in Serbia, post conflict assessment in Afghanistan, post conflict assessment in Iraq, depleted uranium assessment in Bosnia Herzegovina and the post conflict assessment in Liberia.

Discussion on Item 7

Mrs. Monique Barbut asked for some comments and clarifications on how UNOPS operates particularly to its roles in the UNEP Project.

Mr. Robert Rodriguez recalled that UNOPS has teams in the north, central and southern Iraq. He asked how did UNOPS carry out the daily communication with them, whether through the use of phones, Internet, fax, etc. Mr. Chakib Belhassan replied that presently, UNOPS is using phones, mobile phones, and the Internet as well. They are thinking of enhancing their communication facility by using satellite capacities for video conferencing, and other forms of communications that can go further into Iraq and other difficult situations. As for GIS and remote sensing, UNOPS have a lot of experience in supporting different projects related to the said technologies. Moreover, he mentioned that all the capacity which UNOPS have, the know-how, and the knowledge in implementing programmes in different conditions, will be utilized in making sure that the objectives of this project will be achieved. Mrs. Monique Barbut asked if UNOPS could urgently mobilize its capacity to organize a videoconference for her in Iraq. Mr. Belhassan positively responded that it is possible once the system has been set up. He added that they are working on it at present and will try to see technically how they can initiate videoconference using satellite technologies. WHO Iraq added that video conferencing is already available at the WHO's communication facility in Baghdad office. Teleconference between its three offices in Iraq (north, central, south), Kuwait, Amman, Geneva and regional offices in Cairo, is also available through the same communication facility. Therefore it has been one of the means in communicating with the people as well as between WHO and the MOE. Mrs. Monique Barbut asked if the current system works and how WHO have done it since she personally has problems in getting through even on telephone. Dr. Chizuru Aoki added that in most of the projects cleared by the UN Trust Fund, the issue on how to efficiently communicate in a daily basis using phones, satellite videoconferencing and whatever is already available has all been taken into consideration. So the trust that the UN system is now putting into or probably forced to put into it, is a universal problem and not only limited to this project. She believes that there is a concerted effort within the UN family to utilize such mechanism.

Regarding the UNEP's side on the institutional structure of the project implementation, Dr. Chizuru Aoki reiterated 4 points in the implementation structure. She pointed out that the

project is implemented by UNEP while assistance in the implementation will be provided by UNOPS. She added that the PIU within the MOE of Iraq is tasked with 3 essential roles: (a) to provide technical support, (b) to liaise with the national and governorate institutions, and (c) to assist UNEP and UNOPS in project monitoring and execution at the local level. Lastly, regarding the coordination for UNEP project (i.e., in-country activities with relevant ministries including the MOWR, MOP, MOST, MOH, universities, southern governorates, etc.) it is expected from MOE to do the coordination for the project and give UNEP the necessary information related to involved ministries, including the communities. She also recapped on how the structure for implementation was put together and its management.

Prof. Muthanna Al-Omar presented the Iraqi perspective on implementation structure of the project. He said that the MOE would like to highlight the following remarks on the mechanism on implementation, which could be achieved through local ministries as well as through Arab parties that are interested and capable. He mentioned that the Iraqi ministries could implement several sections of the project, which fall within their specific specialties. However, cooperation and coordination is certainly needed in order to avoid duplication. Needless to say that international expertise is of prime importance to help in reaching the goal, and one of the factors that will facilitate the implementation will be the presence and participation of the directorates of the environment in the governorates like the marshlands at Nasseriya and Basra. The MOE of Iraq will be carrying out and monitoring the works, which are currently running on the marshes and it is ready to participate, coordinate and cooperate with all the interested parties. He said that one of the major constraints in the MOE's involvement is the monitoring facilities and the networking. As a national project, he said that the Iraqi specialists and teams should mainly implement it after required capacity building has been provided, but should not prevent them in seeking assistance from the international organizations and experts.

Mrs. Monique Barbut expressed her appreciation to the preceding explanations. She said that UNEP to be as transparent as possible on the way it does things. Regarding the issues raised, and since UNEP will be working in a country like Iraq with difficult conditions, it will welcome any kind of suggestions that could be of help to improve the plans that have been presented and consider MOE's perspectives to make sure that UNEP will be comprehensive in its approaches. She encouraged all stakeholders to be open, and assured them that UNEP will take all MOE's suggestions as additional input and not as criticisms.

Ms. Rania Dagash asked if the regional offices of MOE have already been set up because she believes that it is crucial to the project for these local offices to be set up and operating. On their experience, if the regional offices are not operational, it becomes a hindrance to the continuity of their works with the line ministries, and to reach the community. Dr. Mishkat Al Moumin replied that the directors of environment in the governorate level are already existing and well equipped. She added that it has been established since the last 20 years and was considered as divisions. However, after the establishment of the MOE, it has been considered as directorates.

Dr. Kais Habib expressed his agreement on Prof. Al-Omar's opinion that communication is very vital inside of Iraq. He said that they usually spend days just to contact their center in Nasseriya. In this regard, he emphasized that communication means such as Internet and other facilities will be very important to support the activities of MOE and the project as a whole. Prof. Jamal Abayachi reiterated and confirmed Internet, faxes, telephones are all available in the regional offices of MOE and that they can establish a communication with them on a daily basis.

A representative of the Iraqi Ministry of Environment clarified their difficulties in networking. It is not networking in the broad sense to get connected to the Internet or

any form of communication. He said that what they need now is networking concerning on-site measurements, which should be communicated constantly to MOE in Baghdad. He pointed out the importance of having one or more stations in the marshland which can communicate data instantly to MOE in Baghdad because the ministry needs to know the status of what is going on as often as possible. In this respect, he said that it would be highly appreciated if WHO will offer its assistance to resolve this matter.

Commenting on the numerous data planning for the area, Mrs. Monique Barbut added that UNEP would like to be sure the information will be shared so that all planning developed by WHO and MOE will be on the same direction. As a head, she agrees on the idea of creating a center or a focal point in different ministries in Iraq to make sure that all the needs for the project is well integrated and comprehensive with respect to the overall implementation. Engr. Neda A. Hussain agreed with Mrs. Barbut and added that the directors of MOE in the governorates still lack of all the facilities especially in the marshlands, and the expertise that can make them qualified to this project. She emphasized that focus should be given on building the capacity of these directorates and delivering them the technologies. She pointed out that until this need is met, until the governorates and its directorates in the marshlands can keep up with the expectations of their partners, these institutions cannot be useful to the coordination and continuation of service delivery, study, and information gathering. Dr. Mishkat Al Moumin expressed her full agreement with the preceding comments. She said that the lack of equipment is not only limited to the southern governorates but also all throughout the governorates. However, she said that the MOE and its central laboratory are doing its best to provide the best equipment to these offices. It is just a matter of time to ensure the delivery. She also stressed that as long as there is a desire for cooperation and coordination, finding a department or section is only a formal issue, which indeed simple if there will be a focal point in every department. Moreover, she said that MOE would try to tackle the issue in the best way it could. She also pointed out that it is good to form a central committee on the governorate level, which is consultative in nature for all the parties concerned with the marshland. Any issues concerning this aspect must be presented to the committee for the purpose of approving projects and making comments. She added that this has been very successful in Thi-Qar Governorate and can be repeated in the central governorates and at the level of the MOE. She concluded that a rural development organization pioneered the initiative but MOE can play a leading role and do the same mechanism.

Engr. Neda A. Hussain stated that The Thi-Qar governorate put together a scientific council of experts that can make informed decisions, carry out research, or conduct implementation of projects. This type of model can be replicated in other governorates and/or within the Ministry of Environment.

Mr. Mohamad Hamasha gave his comment regarding the capacity building of the directors of environment. He explained that this newly established MOE previously belonged to the Ministry of Environment and Health. He agreed that they have a paucity of staff, equipment, and other logistic means. He added that WHO has started working with the MOE since its establishment and currently they have supplied equipment to Basra laboratories such as glassware and computers, they have also supplied other governorates like Kirkurk and Baghdad. He added that the project, which had already been funded by UNDG Trust Fund, would be discussed after the roundtable meeting for its implementation. The project will include the establishment of 30 district laboratories plus 15 central laboratories. It will be fully equipped with all the necessary equipment for water quality analysis in addition to staff training to ensure that the monitoring system within Iraq will be comprehensive. Furthermore, they will provide all the laboratories with computers and all the data will be provided to the ministry as the head

decision maker. In the event of making these laboratories efficiently and continuously operational, only then that the ministry can do the coordination with other line ministries with sufficient and accurate information to share and provide.

Sheikh Sabbah Badr Al-Rumayed commented that MOE and the people should function like a teacher-student relationship. He said that while these laboratories and needed facilities of MOE are being prepared, environmental education should be started in the form of campaigns. Educational leaflets prepared by MOH should be distributed specially to those who do not understand this information particularly that of the health aspects. He further explained that people and environment are important elements of development. It is important to start educating the people, and all ministries must collaborate to do such. Health and environmental education should be carried out at the same time because they are inter-related. He also suggested that the media could be a powerful and useful instrument to start disseminating information (e.g., videos, programmes, etc.).

An Iraqi representative commented that it is necessary to discuss capacity building issues, as it could be one basis to evaluate whether the concerned departments and governorates have the capacity to implement. Because there are still some that are not qualified, and incapable to implement projects. He suggested that focus on building the capacity of these departments for them to be qualified is crucial because only then the project implementation can be initiated and can progress. Moreover, he said that the environmental directorates in the governorates have existing collaborations between universities focusing on the marshlands. So the Marshlands Resource Centre being mainly involved in the collaboration can play a major role and should take part in implementing this project.

Mr. Gian-Paolo Caponera, the Cluster 5 task manager, thanked everybody for their presentations on implementation modalities. He noticed that there are a lot of ministries involved. However, there is a fundamental question that needs to be settled among these existing activities. Apparently, the UNDG approved projects to be implemented by UNEP, and put forward the MOE as the lead counterpart ministry in collaboration with MOA and other ministries. He elaborated that what he had understood from the presentations during the previous sessions was that there is a Center for the Restoration for the Iraqi Marshlands, the CRIM. There is an agreement that has already been signed between the MOWR, as the lead chair of this committee and a number of ministries is involved. He repeated that to ensure a successful implementation of the project, there should be a lead ministry. In this case, for some donors (e.g., the Italian and Canadian), he asked how this issue developed with two different head counterparts. He called for resolving this issue at the Iraqi level. This issue has to be clarified once and for all otherwise there is a big risk involved. Mrs. Monique Barbut suggested that it could be resolved bilaterally among the agencies concerned. Each of the projects has different focus. She said that it is true that in a certain project, although you have a global institution, supporting small groups of dedicated people in the government or other organizations is needed to make the projects going particularly at the local level. These groups usually deal with small issues addressed by the project because they are minor issues to be addressed by a global institution. These two groups (i.e., global and small) are complementary to aim at the same goal. She added that she agrees on putting in CRIM as a common point where all marshland issues have to be brought in and resolved. She also noted that every project experiences problems on implementation, and having a focal person who can be called upon to resolved such concerns is crucial.

Mrs. Monique Barbut directed the session to the afternoon's agenda. The afternoon session focused on two working groups: (1) data collection and baseline analysis, and (2) pilot implementation of ESTs and capacity building. The idea of these workshops is to discuss in detail the urgent needs in the implementation phase of the project. She called for a detailed breakdown of all information and recommendations for implementation.

Concluding the session, Dr. Mishkat Al Moumin, Minister of Environment of Iraq stated that she believes that the roundtable meeting has succeeded in getting all the parties interested together in the marshland restoration. The participants have provided their views and opinion, and certainly had a great impact on nurturing the project especially the perspectives coming from the marshland people themselves. She reiterated that marshland rehabilitation is a national project. In order for it to succeed, all efforts must be pulled together towards the project. She emphasized that MOE is ready to cooperate with all ministries and organizations going in the same direction, because she believes that these are the most important points that the meeting has come up with. As for the implementation steps, they will begin once the funding gets into the project. Starting from the directors of the environment surrounding the marshlands and with the cooperation of all the ministries, MOE will be working with UNEP and its partners. However, the cooperation of the international community is needed for a robust approach to the challenges facing the marshlands. She thanked all the participants who gave input to enrich this project. She reiterated that as a national project, no one person or party could carry it out single handedly. Success is on its way if everyone works together.

Mrs. Monique Barbut expressed her gratitude to the participants for their presence and invaluable contributions. She assured them that no comments in this 2-day meeting are taken on a light way. UNEP will all include the information and all the incentives that have been received to implement the project. She concluded the session by summarizing several important points:

- (1) Importance of coordination - the coordination problem in Iraq also reflects the donors' coordination problem. Some of the basic questions need to be answered to solve the coordination issue are: (a) who is doing what, (b) on what basis, (c) on what time frame, and (d) for whom. Answers need to be sorted out very quickly to ensure UNEP's credibility in the field. UNEP will put this high on its agenda. Failure to set up a good coordination mechanism will leave the people of the marshlands as again victims not by destroying their environment but by our uncoordinated actions. She urged for the development and strengthening of coordination mechanism at least among the donors agencies.
- (2) Importance of data management and the information network system - UNEP has a lot of available and to-be-produced data. These data should not be exploited but instead transformed into useful information that is accessible to a wider range of people. Experts, the marshland people and other users must easily understand this information in order to best make use of it. UNEP acknowledged the need for specific data on ESTs, and other appropriate technologies. UNEP will not reinvent the wheel, what is already available will be taken as additional input. Collaboration specifically with WHO, for example, is needed to make sure that all available data are comprehensively included.
- (3) The importance of capacity building - the heart of this project. It is crucial to inform UNEP what is exactly the capacity needed and to whom it should be targeted for to strengthen the right people. There should be different kinds of product of capacity

building depending on the target group. In this regard, UNEP will rely on its local teams to identify the needs and right people to be involved. UNEP is willing to identify the NGOs, which are working close to the areas of the marshes and at the same time interested to cooperate.

- (4) The importance of establishing focal points - to identify the focal points in each ministry and concerned organizations is crucial to coordination. Establishing additional focal points does not mean that UNEP does not recognize CRIM as being the coordination mechanism in Iraq or the central focal point, UNEP needs a smooth working relationship on a daily basis and with a specific focal person in the different ministries, in the different governorates, and in the different villages.

Mrs. Monique Barbut reiterated that the scope of the project is focused. If UNEP sees the need to widen it, through the course of the project implementation, it will take the necessary steps to re-orient the project and extend it if possible. UNEP will reassess its achievements in this project after six months to know the status of all activities that are placed on the ground. She expressed her gratitude to all UN colleagues, government representatives, participants, and to the Japanese Government.

Agenda Item 9

Afternoon Working Groups: Workshop Sessions and Presentation of Iraqi Environmental Cooperation Study Team of Japan

The afternoon working groups were organized into three tracks. Each session began with a presentation of proposed activities. The participants were divided into two groups depending on their interests, one for EST pilot implementation and capacity building and another for data collection and baseline analysis. Dr. Vicente Santiago introduced the objectives of 2 parallel workshops that were held and chaired the first group, and Mr. Robert Rodriguez chaired the second one.

It is important to understand the mechanisms behind the direction of the project based on the Iraqi perspectives particularly the marshland people. On top of identified focal points and coordination mechanism in place, knowing what is happening in the area, and what everyone is doing together with their interests will eventually become invaluable input to any programme on the marshlands.

In his presentation, Prof. Kazuhiko Takeuchi focused on the following main points: (a) purpose of the study team, (b) background information analysis, (c) thematic issues on the marshes and nature conservation, (d) general problems and assistance needs, (e) possible areas for cooperation according to Japanese specialties, and (f) cooperation schemes.

He emphasized that information related to Islamic culture, other donor's activities, and security improvement are important pre-conditions to be analyzed in carrying out activities on the marshlands. In restoring the marshlands, the following thematic issues should be dealt with utmost effort coming from different sector of the local and international communities: (a) adopting technologies for high salinity; (b) developing water quality assessment based on hydrologic modeling; (c) establishing vision for the marshlands; (d) strengthening communication between central and local governments; and (e) promoting constructed wetland management.

Some of the assistance needs identified by the former Iraqi Environment Minister were also reiterated: (a) capacity development for the Iraqi MOE; (b) marshland water quality management; (c) laboratory development in local area; and (d) investigation and treatment of

chemical wastes. Furthermore, he cited the restoration method that was applied at the Kushiro Wetland in Northern Japan as well as some relevant environmental cooperation projects in the Arab Region that were mainly supported by JICA. He also identified the restoration's long-term goals, major approaches, guiding principles, and implemented pilot projects that might be useful input or reference to the UNEP project.

He concluded by outlining the study group's future targets and envisaged achievements. These include providing positive contribution to the multilateral cooperation, and establish medium and long-term vision of environmental cooperation for Iraq.

Dr. Vicente Santiago added that the approaches to watershed management that Prof. Takeuchi presented specifically relates to the same experiences in the different parts of the world and the areas for possible cooperation that he identified would be taken into consideration.

Agenda Item 10

Working Group 1: EST Pilot Implementation and Capacity Building

Dr. Vicente Santiago presented the bases on which the pilot project will be prepared, its identified goals, objectives, and performance standards. He discussed in details the steps involved in the site identification phase of the pilot projects. In addition, specifics of components within marshland rehabilitation such as of the assessment of usefulness and feasibility of restoration, and technological applications were also discussed. The site will be identified based on the following main criteria: (a) water quality conditions; (b) sanitary conditions; (c) marshland restoration; and (d) ongoing or existing activities.

The most degraded of the marshland system are the Al-Hammar (southern marshes), and the central marshes due to desiccation, salt accumulation and changes in land use. However, Al-Hawizhe (northern marshlands) is highly recommended for pilot projects because of the available water, mild desiccation, and existence of marshes' important remnants.

Potential sites for the pilot projects (i.e., water quality and sanitation) identified by the International Technical Advisory Panel (ITAP), and the Eden Again Project of Iraq Foundation were presented. However, for the purpose of this project other possible locations may need to be identified. Furthermore, he discussed the specifics of components within water quality and sanitation in the assessment of usefulness, feasibility of improved sanitation and water quality, assessment and evaluation protocol for technologies, parameters, standards and criteria. As for the specifics of components within capacity building, different aspects on which many initiatives will be based were also identified: (a) on IWRM policy and technical; (b) on water quality; (c) on sanitation; (d) on knowledge management and data handling; (e) on ESTs; and (f) on monitoring and evaluation.

The workshop for the pilot projects expected outputs were: (a) better understanding of the project activities and strategies; (b) identification of partners and commitments inside Iraq; (c) clarification of interactions among partners inside Iraq; (d) coordination among partners in Iraq; (e) identification of sites; (f) collaborations with International Development Agencies and other UN Organizations.

Engr. Neda A. Hussain said that all project information is available in her office, and can be provided to UNEP as needed. They are mainly focusing on emergency projects where NGOs are involved in providing the basic needs of the people, especially to the refugees of the marshlands. She emphasized that there was no specific plan for the marshlands for 2004, as the fiscal plan depends on specific population. The fiscal budget is distributed to whole of Iraq depending on population ratio in the region. For 2005, a special project proposal for water and sewerage in the southern marshlands was submitted. There is also a project that strategically resolves the hunger issue by feeding more than 50% of Rikwar Awar marshlands; there exist also an information management project. Despite all these projects and aids, water deficiency particularly in rural areas remains in worse condition. Sanitation and sewerage system is also becoming sensitive issues, as there is no NGO working for these issues particularly in the marshlands. Until now there is no project being implemented concerning the sewerage system in the marshland areas. For the 2005 plan, some of the marshlands, which are mostly urban areas, will be included. Its approval, however, depends on the state budget. Organizations such as USAID have a project in Chibaysh area for the sewerage system but the range of its financial commitment to the project is unknown to her office. She called for a clear coordination among these parties to confirm that all the projects that have been implemented and will be implemented in the near future reflect the actual needs of these areas.

Prof. Jamal Abaychi of Iraqi Ministry of Environment requested for building the capacities of the academe sector such as the University of Thi-Qar, and the Afwar Research Institute by providing them testing laboratories equipped with necessary machines and tools for research. This will eventually assist UNEP and other organizations in archiving information, and establishing a database that can be useful to everyone. He also personally requested the staff of the aforementioned academic institutions to



Representatives of Iraqi delegation

be involved in the trainings outside of Iraq to give them experience as well as share their own with other countries. This will make them capable to conduct local trainings for the people of the marshlands regarding its management and preservation. Moreover, he suggested making the local people aware of the toxic substances that are prevalent in the marshes to avoid health risks particularly of the field mines. Some pilot sites for rice plantation can be readily identified should it will be included in the UNEP Project. Reviving the rice plantation in the marshes will increase the productivity of the area. Some possible locations are Garmat Venezeyi area, Adawae site, Al-Hammar district, Alfahod district, and the Abu-Zarig marshland areas. Vicente Santiago responded by requesting the participants who have specific proposals for the site to make a list, identifying institutions, and names, for a comprehensive way of compiling information. He called for identifying the focal interest of each institution with respect to the pilot projects that IETC are going to put up in the marshlands. He also reiterated the importance of identifying the focal point in a particular institution so that coordination can be easily established, and available information can be immediately shared with MOE and other involved ministries. This will in turn channel the available information

to other local users through the national coordinator. He called for the identification of the possible sites to prioritize in the selection for pilot projects based on the criteria that were established.

Prof. Jamal Abaychi of Iraqi Ministry of Environment commented on the fragmentation of existing number of efforts and ongoing activities. Coordination is one major goal that everyone needs to pursue between different parties that are concerned including the NGOs, international organizations to avoid duplication and overlapping of tasks. The proposals coming from different sectors, to coordinate with UNEP project must clearly specify needs and their roles to play within the framework of the overall programme. The method of how they will complement with the activities should also be identified to make the whole implementation process easier. Dr. Vicente Santiago responded that the issue on coordination and knowing what is happening is a must in addition to strengthening the project strategies depending on the emerging needs and requirements.

Mr. Ryuichi Fukuhara of UNESCO agreed on the project's capacity building programme. He enquired about the kind of capacity building that this project will be providing. Dr. Vicente Santiago responded that capacity building would be provided through lectures, field studies, site visits in Japan and in the region for field demonstration and hands-on experience.

Dr. Vicente Santiago asked Mr. Fukuhara what cooperation could IETC get in the area of IWRM and the possibilities of coordination with UNESCO. Mr. Fukuhara replied that they are currently implementing a capacity building training project for MOWR that includes water schedule modeling, ground water protection, and water law and institutional labor. It is a comprehensive component for capacity building providing training outside of Iraq. There is a high possibility of cooperation and coordination between UNESCO and UNEP as both are part of the same cluster in the UNDG Trust Fund. He suggested focusing more on coordinating organizations outside the UN System such as the Italian Government, USAID, and the Canadian Government. Dr. Vicente Santiago responded that in addition to the existing and relevant clusters, IETC would bring different partners into the project as much as possible. These partners will of course depend on their specialties particularly on EST application and other specific technologies. The project may also have to rely on other expertise from different institutions, private companies to be able to bring the whole training package to the marshlands comprehensively.

Mr. Lakis Papastavrou pointed out a couple of very essential points to consider in Iraq's present situation. After the war, Iraq has been dealing with emergency needs and humanitarian issues. The people of Iraq face many other issues during the post conflict period. It is fundamental to understand that Iraq will never be able to go through these developmental stages, projects, and programmes unless the country goes through a peaceful process. He called for a focus on addressing the emergency needs of the communities. Concerning the needs for infrastructure systems, support and rehabilitation in this sector must be dealt with in a way that it exactly addresses how to make lives of the community easier and how to sustain their livelihoods. The needs of the lower south must be particularly addressed. These communities have been undergoing through a suffering process since 1980. Plans and programmes directed towards them must be focused and targeted. Issues on water and sanitation, food security, agricultural and fishery support, and education must be resolved for these communities to survive. Establishing better lives for these communities increases the potential for development. Dr. Vicente Santiago said that the issue raised reflects that in identifying pilot studies, clear specification of priorities based on what is required by the communities will be crucial. Areas whereby there is a need for sanitation, potable water, increase in water quality, and reconstruction of wetland should be clearly identified to make sure the survival of the people and its ecosystem. In this regard, the identification

of “hotspots” whereby the application of the activities will have the most effective results in terms of not only the application of technologies but also of the increase of the quality of life of the people will be crucial.

An Iraqi representative stated that the Marine Science Center in the University of Basra has active works in the marshlands, particularly in Al-Hammar marsh with the support of USAID. They are currently doing environmental monitoring, water quality, and some capacity building initiatives. Mr. Ryuichi Fukuhara added that he personally keeps in touch with Mr. Salman, the University President and other professors like Dr. Najah Hussein.

Mr. Lakis Papastavrou said that all contacts of the UN Clusters especially Cluster 5 have been mainly with the line ministers. Through the line ministries the clusters are able to pull expertise that is known in the line ministries at various regions. If there has been an indirect contact, it is only through personal initiatives. For Cluster 5, there has been a linkage with the director of agriculture in the lower south, and in Basra specifically. He added that immediately after the war, they had a project on supply of emergency inputs to the vulnerable farmers in the region. An NGO in Ammar was supposed to help deliver the fertilizers to the marshland farmers but unfortunately under various reasons it was not fully implemented. To conclude, he emphasized that it is only through specific projects that various institutions in the country can be linked and a pool of expertise can be made readily available. However, this expertise must again go through capacity building before pulling them out for the project implementation modalities. He also pointed out that there is a lot of know-how on the ground and Iraq is not like many other countries lacking information and expertise. Nevertheless, it is true that this know-how is outdated. In this regard, revitalizing their capacity will bring back their competitiveness. All these make up a community-oriented approach to the issue of concern.

Mr. Ryuichi Fukuhara of UNESCO added that for capacity building, UNESCO is offering capacity to support higher education. Education sector of UNESCO is preparing to assist higher education institutions and will be implemented very soon. This is the reason why he keeps constant communication between some professors in Basra University.

Engr. Neda A. Hussain responded that her office serves as a coordinator among all other departments that are responsible for drinking water and sanitation, and the integrated management for marsh reconstruction. Within the Physical Planning Department, there is a Marshland Section dealing with developmental activities in the marshes. There are also some training courses in Egypt dealing with general issues but not specifically with marshes. She also emphasized that they work at the whole complex of the marshes (i.e., central, Rikar marsh, south and north). Moreover, as a coordinator of international and local organizations working on the marshes, projects for refugees and basic services like education and health also exist and covered by the mandate of the ministry. She clarified that the said committee is responsible for all the works dealing with all organizations that have proposals for the marshes. At present, they are developing a proposal to the Marshlands Council that represents the local/native people of the marshes. Dr. Vicente Santiago sought clarification for the position and role of the said committee. He asked if whatever will be taking place in the marshlands, has to go through the committee even if it will be a pilot case implementation, and if it is the committee that decides on the execution of a certain project. Engr. Neda A. Hussain responded that they have the major responsibilities for all the coordination and decision-making, and they have been in the position for almost a year already.

A participant sought further clarification regarding the committee. He asked if this council or committee is officially recognized by the MOE or by the Ministry of Planning as the overall coordinator of activities and as the decision maker, or it is simply an

organization in the lower south. Engr. Hussain explained that there are some differences in the committee such as the involvement of some specialists coming from the universities, physical planning environment, etc. She added that Marshlands Council also exists representing local people and is now under deliberation to be an NGO. Dr. Vicente Santiago sought further clarification on the position of the committee in the Ministry of Municipality and Works. He enquired if it is in the highest position in terms of decision-making and tasked with that mandate according to the law. Engr. Neda A. Hussain replied yes and explained that the local government of their province created the committee. She called for the replication of such mechanism in other provinces like Missan and Basrah.

An Iraqi participant requested specific clarification on whether anyone intending to work on the marshlands needed to have the approval of the Council.

Engr. Neda A. Hussain made the clarification between the Marsh Council, which represents the local people and the "Advisory Board" which consists of a body of specialists within the marshes. This board gathers all the people working in the marshlands so they can make informed, coordinated decisions using the best available scientific information. With representatives from all the different organizations, this board can advise the citizens of the marshes the best way to proceed in a coordinated scientific manner.

Sheikh mentioned that there has been a lot of talk about doing great things for the marshes over the past two days and he is very grateful for this. However, these undertakings have only been 50% successful because they are done haphazardly. An example of this was the distribution of seeds and fertilizer after the season was over. Why did this occur? Because they did not consult those of us who know and understand the environment. Over the past two years there has been no coordination with the governorates, the marsh people, the university etc. We welcome any help and any organization but you must take the people's opinion into consideration and coordinate with the council. The people of the marshes are good people and want to work with everyone in Iraq

Dr. Vicente Santiago expressed his appreciation to the comments given by the Sheikh. He reiterated that coordination would be important to solve the issues. Conflicts must be resolved as soon as possible before putting up any programmes. He made it clear that the idea is precisely what is within the concept of IWRM and how it can be applied. Furthermore, ESTs will be used to identify problems on application and implementation as well as their appropriate solutions. He elaborated that these types of situation and all that concerns the Iraqi ministries and communities should be brought up to the MOE, where coordination of activities will take place to solve and arrive in a conclusion or decision. It is very important to show that there are differences that need to be breached in order to be able to continue on what have been planned.

Sheikh expressed his concern over the mosquito issue, emphasizing that he wants to be honest. The mosquitoes are a serious health problem and there has not been one organization that has addressed this issue. It is imperative that something be done, if you want to help the people of the marshes this problem needs to be solved.

Sheikh Abbas stated that he wanted someone to record what the Sheikh said, indicating that people should know that the people of the marshes are not only concerned with fishing and hunting the water buffalo. We are a cultured, educated people. You must take into consideration the rights of women and include women in the new democratic institutions, give women a role. There has not been an organization with the goal of helping our women, and do not think that we are just fishermen and hunters. We are cultured.

Dr. Vicente Santiago clarified that women will be considered in the capacity building programme. He emphasized that this is a comprehensive multi-cultural and gender balanced initiative.

Mr. Lakis Papastavrou stated that after being involved in the UN cluster, hearing the issues that the Sheikh have raised and at the same time certain questions as to how much is happening on the ground, progress is feasible. He added that if the Sheikh would be present in the following days, he would bring with him the cluster task managers to have a direct exchange of discussion with the Sheikh as to what exactly is happening on the marshes. He further explained that learning what they are exactly experiencing on the ground directly from people who come from the actual area would be beneficial to the whole UN System. This can open opportunities to see how resources can be directed appropriately to the community. He reiterated that everyone must never lose track and focus. The people must be informed and ensured that all of the US\$ 400 million donors' money that has been allocated to the UN Trust Fund will all go to the community development and support. He requested UNEP to bring up to other task managers of the main clusters the issues that the Sheikh had raised. Dr. Vicente Santiago assured that they would take this as recommendation from the workshop. He will take note of the need for other clusters to be more involved with the local community specifically with the Sheikh.

Engr. Neda A. Hussain presented the issue regarding the housing aspect. She said that as planners, they have to take into account that the first priority of the marsh people as refugees is housing. Since they have large caseload of IDPs, there is a need for low cost housing projects.

Mr. Lakis Papastavrou stated that being a member of the UN Trust Fund, UNEP as the organizer of the workshop could take one step further to propose a meeting with other clusters and the Marshland delegations where they can basically express some of their views and their overall requirements. This step will strengthen the communication between clusters and cluster managers who are involved in various projects and will provide an opportunity for the indigenous community from marshlands to be involved. Dr. Vicente Santiago replied that the decision should be asked from the project manager. As for the sanitation in southern Iraq, Mr. Ryuichi Fukuhara of UNESCO said that Mr. Daniel Riff, Regional Coordinator of UNAMI based in Kuwait has all the NGO information. Dr. Vicente Santiago stated that there are NGOs on the field but many factors are still unknown such as on which areas they are working, what they are doing, and with whom they are cooperating.

To continue, Dr. Vicente Santiago described the next part of the workshop. It was an exercise to re-assess the need for cooperation and identify the partners and so on. As he understood, the participants who attended the meeting are specifically appointed as potential partners. On this basis, IETC will start to consider the partnership with these centers and ministries when the project starts through the cooperation of the MOE. He also emphasized that things are going to happen very fast (i.e., one-year time frame). He announced that the 1st training would start on December of 2004 and they will start the pilot case studies very soon. Being a 1-year project everyone is well aware that there is a lot to do, therefore a need for efficient coordination, efficient action, mechanism for conflict resolution and participation, are all fundamentals.

A representative from the University of Basrah mentioned they have a specialist in soil and water management from the College of Agriculture. Dr. Vicente Santiago pointed out that they are not trying to find the experts at present but the institutions and organizations. However, experts will be soon identified for the capacity building and implementation components of the project.

Sheikh Abbas Omar Al-Abady wanted to bring attention to the water programme, stating that currently there is no clean water reaching the outer areas in the Hammar valley.

Engr. Neda A. Hussain explained why this has not happened yet, as it is mostly tied to the fact that when the governorates searched for water resources they only found places that contain high levels of salt.

Sheikh Abbas Omar Al-Abady clarified that he is not talking about those living right within the marshes or people with access to the municipality, he is talking about those living in villages farther out, in areas that are more rural.

Engr. Neda A. Hussain reiterated that the problem still comes down to salt and that no organization within the marshes has a desalination capacity. This could be a pilot project for the Japanese side.

Sheikh Abbas Omar Al-Abady's commented that they need something like RO stations which give clean water. It is imperative to provide clean water for the area.

Engr. Neda A. Hussain stated that one of the main problems in that area is the salty water. Most of the international organizations do not have enough funds to construct the main water line to the area or a complex for RO stations. There were donors who gave 100 RO stations for the marshes but she was not sure about the implementation.

Another Iraqi representative stated that the marshes need clean water quickly for the citizens and their children



Representatives from Marsh Arab communities

Mr. Robert Rodriguez summarized the 2-hour active session on data management and baseline analysis. All members discussed the practical way to set-up the information management together with its appearance and full operation.

He also mentioned that the goal of their discussion was to explain exactly what are the activities concerning the data collection, setting-up of information system and its infrastructure, the associated capacity building, the GIS component, and information gathering and support. To set up a physical network in Iraq, they must identify the people who need to access the information network.

He stated that the best possible partners are the people who can access and make a full use of the information, which we are going to be developed in the MIN. He then presented the list of the session recommendations as follows: (1) contact Canadian colleague who is building a network of all the universities in Baghdad. The said network could be a key to inform and benefit UNEP about the available capacity in sharing information, and open opportunities to link ESTIS to their network; (2) link the ministries and the information available with them; (3) link the CRIM; and (4) link the NGOs.

Once links are established, Mr. Robert Rodriguez said that he would work on the specific list of possible stakeholders who can use and participate in the MIN system. And when the list is complete, he will contact all of them, prepare a survey and checklist that will aid the decision-making. All those institutions will have access to the information network but those who will have the server will have a better access. Due to financial constraints, he cannot give a server to all those institutions. The most appropriate institution will be selected for hosting the

server. Moreover, a matrix will be made on how much they can contribute, how much they would be using the system, how much expertise they have and how much information they can contribute to the MIN. Regarding the technical capacity, he will also establish link to a center without any capacity in terms of connection to the Internet, but has useful information for the MIN. Hence, this shows higher investments to make sure that it will be included in the network. He emphasized, however, that the more it cost, the less the project can provide connection. He further discussed that a balance between institutions that is ready to be connected but with less information, no-ready connection but with a lot of knowledge, and internet-ready with a lot of knowledge should be established. He made a recommendation for the participants to prepare a simple matrix that will be sent to IETC that will enable the center to identify and select the institution that will receive the server to operate the MIN.

Once the contact list is completed, UNEP will conduct a survey to identify the institutions that have a capacity to host the server to operate MIN. Mr. Rodriguez also mentioned the necessity to find a better way to introduce ESTIS so that the Iraqi people could understand well even without a face-to-face lecture.

Dr. Vicente Santiago presented the issues raised on the session on pilot case studies and capacity building: (1) cooperation and coordination. There is an active participation in all directions. However, the issue of knowing exactly what is happening in the field, who is doing what, what are the capacity of each institutions, are crucial to the project. All initiatives for the marshlands should be linked with its people. He pointed out that this is the basic philosophy and concept of the project, it is directed to the well-being of the people of the marshlands. Coordination of activities will ensure the free flow of information, knowledge and experience among all the stakeholders; and (2) capacity building. This is specificities-related. He stressed that there is a need of explicit and quick coordination and pool of expertise for the pilot projects to succeed.

Dr. Vicente Santiago concluded the two workshop sessions by reiterating that those who are present could be considered as partners. He identified the following: (a) need for coordination and cooperation between institutions and all partners; (b) need for identifying ongoing activities in the field by different partners; and (c) need for clusters to better show the specific results of their projects and establish links between local people of the marshlands.

He also noted that the proposed pilot projects for the hotspots have to be listed by the institutions, centers, local and national bodies and send to the national coordinator of the project in the MOE, so that information is shared and right decisions could be made. The proposed cooperation presented by the committee of the Prof. Takeuchi to the marshland rehabilitation would also be considered.

Sheikh Abbas Omar Al-Abady reiterated the points on pest control and pesticides. Dr. Vicente Santiago responded that the issue raised by the Sheikh regarding pest, insecticides, mosquitoes would not be part of the workshop recommendation, but would be brought to other clusters' attention particularly to Cluster 5.

Prof. Jamal Abaychi thanked on behalf of the Iraqi participants for the efficient and professional way of running the working group sessions.

Mrs. Monique Barbut closed the working group sessions by asking all the participants for a continued cooperation and discussions to carry on the UNEP project.

Day 2: Closing Remarks

Mrs. Monique Barbut called for a continuous active dialogue among partners and organizations involved to complement the overall strategies of the project. She further stressed the development of necessary mechanisms in order to ensure the success of the UNEP Project. In closing, she thanked all the participants for their active contributions, comments/suggestions, and commitments.

Sheikh Abbas Omar Al-Abady thanked all the participants for their hard work and interest in rehabilitating the Marshlands. He stated that Iraqis not only want peace for themselves but for the entire region. As representatives of the Marsh Arabs, they will convey to the rest of the community the commitment they have witnessed and will give the message that there are people who want to help the Marsh Arabs and improve their environment.

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About the UNEP Division of Technology, Industry and Economics

The UNEP Division of Technology, Industry and Economics (DTIE) helps governments, local authorities and decision-makers in business and industry to develop and implement policies and practices focusing on sustainable development.

The Division works to promote:

- > sustainable consumption and production,
- > the efficient use of renewable energy,
- > adequate management of chemicals,
- > the integration of environmental costs in development policies.

The Office of the Director, located in Paris, coordinates activities through:

- > The International Environmental Technology Centre - IETC (Osaka, Shiga), which implements integrated waste, water and disaster management programmes, focusing in particular on Asia.
- > Production and Consumption (Paris), which promotes sustainable consumption and production patterns as a contribution to human development through global markets.
- > Chemicals (Geneva), which catalyzes global actions to bring about the sound management of chemicals and the improvement of chemical safety worldwide.
- > Energy (Paris), which fosters energy and transport policies for sustainable development and encourages investment in renewable energy and energy efficiency.
- > OzonAction (Paris), which supports the phase-out of ozone depleting substances in developing countries and countries with economies in transition to ensure implementation of the Montreal Protocol.
- > Economics and Trade (Geneva), which helps countries to integrate environmental considerations into economic and trade policies, and works with the finance sector to incorporate sustainable development policies.

UNEP DTIE activities focus on raising awareness, improving the transfer of knowledge and information, fostering technological cooperation and partnerships, and implementing international conventions and agreements.

For more information,
see www.unep.fr

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The UNEP Roundtable on Iraqi Marshland Management was organized within the framework of the UNEP project titled “Support for Environmental Management of the Iraqi Marshlands,” which was launched in July 2004 by the International Environmental Technology Centre (IETC) of UNEP DTIE.

The meeting was held to present the UNEP project and discuss its implementation plans with various stakeholders. Discussions also served as a platform for information exchange among local, national, and international partners to examine the current status of marshland management and related UN and bilateral initiatives and to identify areas of cooperation.