

REPORT ON INTERNATIONAL WORKSHOPS

Water Security

in the **Middle East**

MONTREUX, SWITZERLAND, 15-16 FEBRUARY, 2010



Strategic Foresight Group



Schweizerische Eidgenossenschaft
Confédération suisse
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Confederaziun svizra

Federal Department of Foreign Affairs FDFA
Directorate of Political Affairs DP
Political Affairs Division IV, Human Security



Sida

SWEDISH INTERNATIONAL DEVELOPMENT
COOPERATION AGENCY



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Federal Department of Foreign Affairs FDFA
Swiss Agency for Development and Cooperation SDC



HRH Prince Hassan bin Talal of Jordan giving the keynote address



Dr. Martin Dahinden giving the welcome address

Introduction

An international initiative on Water Security in the Middle East was launched at Montreux, Switzerland, on February 15-16, with two workshops attracting the participation of 60 leading policymakers, including members of Parliament, former Cabinet Ministers, senior leaders of Water Commissions and heads of research institutions from across the Middle East.

The initiative is steered by the Strategic Foresight Group (SFG). The two workshops in Montreux were co-hosted by the Swiss Agency for Development and Cooperation (SDC) and the Swedish International Development Agency (Sida), with support from Political Affairs Division IV for Human Security of the Swiss Federal Department of Foreign Affairs. In preparation for the workshops, SFG had held consultations with leaders in the Middle East, including the President of Turkey, Foreign Affairs and Irrigation Ministers of Syria, Chief of the Royal Court of Jordan, and distinguished experts from several countries in the region. Following the two workshops, SFG will undertake further consultations and participatory research in the region in order to

find sustainable and collaborative solutions to water security in the Middle East.

Switzerland and Sweden have decided to support this initiative since they share a similar vision regarding peace, human rights, economic growth and environment for the Middle East. Both countries uphold efforts for the improvement of water security of this region.

Workshop I on February 15, 2010 focussed on Iraq, Lebanon, Syria and Turkey. Workshop II on February 16, 2010 focussed on Israel, Jordan and the Palestinian Territories. While the two workshops were separately held on two consecutive days at the same venue, it was obvious that the challenges of water security were interlinked and required a regional approach.

HRH Prince Hassan bin Talal of Jordan of Jordan delivered the keynote address to launch the initiative. His Royal Highness called for the establishment of a regional water and energy community. While expressing concern about growing water scarcity



Workshop I in progress

across Asia and Africa, he emphasized the urgency of trans-boundary cooperation. He suggested that water and environment should be seen as “regional commons”. Prince Hassan said “We need to develop a regional master plan for water security based on innovative concepts. Such a plan should particularly address the needs of millions of people who form the silent majority.”

Dr Martin Dahinden, Director General of the Swiss Agency for Development and Cooperation, also urged the need for an integrated regional plan for water security. Citing the examples of the Rhine River basin and Switzerland’s role in addressing problems arising out of water imbalances in Central Asia, he advocated a cooperative approach to manage trans-boundary water resources. He also underlined the importance of sound technical management of the water sector.

The participants presented long-term scenarios for the next 20 years. On account of population and economic growth, climate change and domestic imbalances, almost all countries in the region will experience a substantial decline in per capita water availability by 2030. Several sources of fresh water, including rivers, lakes and groundwater aquifers are already shrinking and suffering from pollution and contamination. In view of the magnitude of crisis, the participants agreed that there was no option but to improve demand management and explore cooperation. Several participants presented ideas for action to help find sustainable and collaborative solutions.



Ayman Abdel Nour, Dag Juhlin-Dannfelt, Adel Sharif



Karim Makdisi, Riad Al Khouri, Jean-Daniel Ruch during Workshop I

Ideas for Action

The participants in the two workshops in Montreux presented several innovative ideas to solve the growing crisis of water security in the Middle East. These proposals do not reflect an agreement or consensus. The objective of the two workshops was merely to seek analysis and ideas for action from thought leaders in the region. It was not the intention of the Strategic Foresight Group to forge consensus on any of the ideas presented at the Montreux workshops. In the subsequent phases of the initiative, SFG will examine the viability of these and other projects, and explore possible support for them among decision makers and people in the region.

- A regional master plan for addressing water security in the Middle East with a view to create a community of shared interests in water, environment and energy, contributing towards broader regional cooperation and peace.
- An independent agency for cooperative management of the Euphrates-Tigris Basin, which is established on terms acceptable to all stakeholder countries in the region but which functions in an autonomous manner. Such an organization would have an independent governance structure, international resources, and an authority to take decisions which are in the interests of the sound management of the basin at large.
- An independent agency for the joint management of aquifers in Israel and the Palestinian Territories established on the principle of fairness in distribution of water, equity in decision-making, and preservation of the long-term health of natural resources in the common interest of all people and future generations, until a lasting solution to



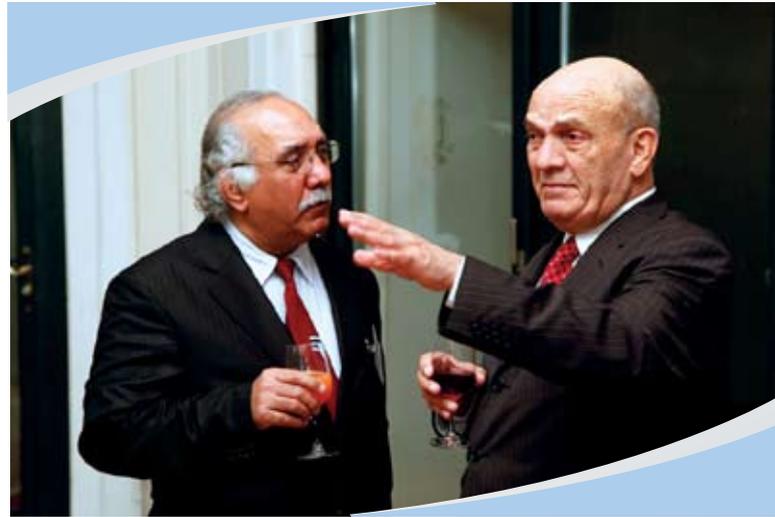
Francois Munger chairing Session 3 in Workshop I

the Israel-Palestinian political problem is found and arrangements for sound management of water resources are made following such a solution.

- Cooperation in the treatment of sewage and waste water between Israel and the Palestine Territories. Such cooperation would include addressing the problems of seepage into the mountain aquifer. One possible approach could be for Israel to provide more water to the Palestine Water Authority at a subsidized rate, on the basis of their assurance that the waste water would be properly treated before it can seep into the aquifers. Another possible approach could be to agree on similar norms for waste water treatment and enable each other through technology transfer and cooperative decision-making. A system of interdependence and inclusion will foster a sense of responsibility on both sides.
- Examination of fresh proposals for Turkey to play a role in providing water from its national rivers to

other countries in the region, particularly including the countries and territories in the Jordan Valley, to help alleviate growing water stress and use water as an instrument of regional cooperation and peace. Previous plans of diverting water from the Seyhan and Ceyhan Rivers would need to be re-examined and revisited as ground realities have changed in the last two decades since this idea was initially articulated. As of now, the Manavgat has the facilities to export water. However, the feasibility to export it, as also to export water from other fast running rivers including Goksu River to the Jordan Valley countries needs to be studied.

- The Dead Sea is a regional common of great historical and geographic significance; it is important that collective measures are taken to save the Dead Sea.
- Shatt Al-Arab is a regional common of great cultural and strategic significance. It is important that collective measures are taken to save and sustain the ecosystem. It must be particularly noted that currently the Shatt Al-Arab region has not attracted adequate attention.
- Since climate change is a major concern and there is no region-specific scientific data on



Mukdad Al Jabbari and Munther Haddadin

its potential future effects, it would be useful to have a regional agency to monitor the effects of climate change, along with developing models at the regional and sub-regional levels for proper warning systems that would benefit all the countries. It must be noted that the idea of a regional climate change monitoring centre has also been endorsed in other conferences held in the region.

- Improvement in demand management practices with emphasis on modernisation of irrigation methods to reduce water intensity, the use of new systems and technology to convert open canals into closed water transport systems to reduce evaporation, ban on excessive pumping of ground water to prevent salinity, optimum pricing policies, formation of Water Users' Associations to engage civil society, and strategies to minimise wastage and leakage.
- Strategies to effectively utilize the media, particularly including the new media, as a tool to raise public awareness, disseminate information about the gravity of the water problem and possible solutions, and also as a means to facilitate dialogue.



Selim Catafaco and Abdullah Droubi

The ideas identified above are among several concepts and proposals mentioned in the two workshops in Montreux. SFG has chosen to focus on these ideas as in its perception they have potential for implementation. The focus on these ideas does not reflect on relative importance of other ideas, which individual participants may prefer. Also, the focus on these ideas does not neglect the concerns expressed by several participants about the issues of fairness and justice in trans-boundary water relations. For instance, in Workshop I on Iraq, Lebanon, Syria and Turkey, the idea of a Centre for Water Studies for scientific cooperation between the four countries was discussed. Some participants suggested that such a centre could be based in Syria. But other participants observed that the United States has already announced plans to create a centre of excellence for the region. Besides, there are already existing research institutes in Syria which cooperate with scientists in the neighbouring countries. In Workshop II on Israel, Jordan and the Palestine Territories, some participants proposed swap of resources such as Israeli water for Gaza gas, but other participants viewed such an arrangement a violation of their natural rights. In Workshop I, as well as II, there was a strong emphasis on the need



Sahar Al Qawasmi and Ayman Abdel Nour

to enhance training and capacity-building of officials to use modern practices and technology in demand management, as well as in creating and coordinating data as reliable basis for informed decision-making. Currently, there are several training programmes in the region, including some supported by Sida. However, the participants expressed the need to build on existing training programmes substantially. The ideas identified above represent hope for a forward movement and potential for breakthrough if they are carefully studied and found viable.

Hope for Action

The two workshops deliberated rival claims of neighbouring countries and reflected on the anguish felt by the aggrieved populations. However, they also noted certain changes which provide hope for action.

In Workshop I, participants observed that the political relations between Turkey, Syria and Iraq had improved. Turkey and Syria had recently signed 52 agreements in a Summit level meeting, including Visa free travel for citizens of the two countries. Turkey, Syria and Iraq were also holding technical level talks on water resources at bilateral and trilateral levels. A recent agreement between the three countries has provided Syria possibilities to irrigate 150,000 hectares from the Tigris. Turkey has released extra waters of Euphrates for Iraq on an ad hoc basis in times of need, though Iraq would like to have an enduring agreement which addresses its needs on a sustained basis. Such a beginning provides seeds of hope for building cooperation block by block and presenting some of the ambitious ideas identified above for consideration of government leaders.

A small beginning can be made with the Orontes River shared by Lebanon, Syria and Turkey. Lebanon and Syria have already entered into a water sharing agreement. There is scope to build on it for the two countries to explore a basin-wide watershed development programme. Once the two countries initiate such a basin-oriented development programme, entirely as their joint initiative, but if necessary with international technical and financial support, they may at a later stage invite Turkey to join the development programme.



Yair Hirschfeld, Saban Disli, Yasar Yakis

Once an integrated basin development programme between Syria, Lebanon, and Turkey is in operation, a similar approach can be explored for watershed development of other rivers. A gradual approach of basin wide cooperation from rivers where such an agreement is relatively easier to rivers where such an agreement is more difficult is required. Once such an approach is established in the northern part of the region, it can be extended to the southern part for basin wide development of the Jordan River.

There is also a growing awareness of effective demand management. Realising that irrigation consumes the maximum amount of water, Turkey plans to reduce water allocation for this sector from 75% at present to 64% by 2023. It has shifted from open canals to closed canals, pipelines, sprinklers, trickle systems and other water saving systems. It is also encouraging the establishment of ground water irrigation systems.

Lebanon appreciates the need to improve water culture and ethics. Such appreciation provides hope for action, though the current situation is not desirable. Similarly, Syria is in the process of gradually shifting towards demand management, including enforcement of water legislation, capacity building, and integrated water resource management concept.

In Workshop II on Israel, Jordan and the Palestinian Territories, it was observed that despite critical outstanding political issues, the World Bank has undertaken a study for building a Red-Dead Canal for regeneration of the Dead Sea and generation of electricity. There are considerable environmental and financial considerations in implementation of such a project, but the Jordanian leadership is committed to it and might be in a position to mobilise resources.

The participants from Israel and the Palestine Territories indicated that despite disagreement on the issue of water rights, they had no option but to cooperate in sewage, waste water treatment and desalination for separate and mutual existence. Such low-key but concrete cooperation could perhaps pave the ground for later cooperation in more difficult areas.

Switzerland, the host country, provided examples of cooperation from Central Asia, a region located in the neighbourhood of the Middle East, where countries are trying to find a cooperative approach to water management despite political difficulties.

In Central Asia the Swiss Agency for Development and Cooperation supports a project on Integrated Water Resources Management in the Ferghana valley, where local water user committees manage the distribution of water according to the principles of equity. Women play a decisive role in this task.



Lord John Alderdice chairing concluding session of Workshop II

Despite political conflicts between Uzbekistan and Tajikistan, the SDC project in the Ferghana valley has produced impressive results:

- 680,000 farmers produce high value products with less water and without the danger of increasing the salt content of the ground.
- Water distribution systems which are well and transparently organized allow the farmers to save up to ten hours per day, because they do not have to wait for water or not have to defend the water they are entitled to.
- Conflicts between families because of water theft have decreased. The health and well-being of human beings has improved. Women no longer have to wait for long hours at night at the edge of fields for the water.

Hope for action was also provided by the location of the workshop, Montreux, on the shores of Lake Geneva. Switzerland and France located on the shores of the lake cooperate in many ways for the health and sustenance of this important water resource.

Urgency for Action

The two workshops underlined the need for urgency for action. While some positive attitudes provide hope, the situation on the ground is deteriorating at a fast pace. The entire Middle East North Africa (MENA) region is expected to experience decline of per capita annual renewable water availability from approximately 750 cubic meters at present to approximately 500 cubic meters by 2025. All seven countries represented at the workshop are expected to experience significant increase in demand.

Since water availability is closely linked to food security, as much of water in the region is used for farming and irrigation, the region may face food crisis in a couple of decades. Moreover, climate induced change in production will lead to a 40-50% drop in wheat, 25-30% drop in rice, and about 15-18% in maize in parts of the region. The actual figures would vary from season to season and from country to country, depending on the intensity of drought, intensity of irrigation, and land quality.



Jamal Al-Dadah and Marwan Abdel Hamid



Ephraim Sneh

The participants outlined country-specific challenges. These include destruction and neglect caused by war and flawed governance in Iraq, significant under utilisation of capacity in Lebanon, over utilisation of ground water in Syria, internal geographic imbalances in Turkey, gross shortage of water resources in all the three Jordan Valley countries, and problems associated with occupation in the Palestine Territories. Besides, large parts of the region face the problem of climate change, drought and salinity.

While the specific nature and intensity of problem varies from one country to another and from one province to another within countries, participants urged urgency of innovation, forward-looking approach, dialogue and collaborative process.

Action by Strategic Foresight Group

Strategic Foresight Group will build on constructive discussions at Montreux. It invites experts in the region, including participants at Montreux Workshops, to contribute thoughts, ideas, and recommendations. SFG will continue to hold consultations with leaders and experts in the region and organise more discussions and workshops in different forms. SFG aims to produce a policy paper by the end of 2010, which will be disseminated, particularly among policy makers in the region and the international community in 2011.

SFG invites collaboration with like-minded institutions in the context of this project. Those interested are invited to visit our website www.strategicforesight.com or write to Ms Ambika Vishwanath at ambikav@strategicforesight.com. We also invite those interested to visit Green Prophet blog (www.greenprophet.com) which carries a debate on the subject from an Israeli perspective. We would like to invite Arab, Turkish and international blogs to carry similar debates.

Strategic Foresight Group appreciates cooperation from the Swiss Agency for Development and Cooperation and the Swedish International Development Agency, along with support from Political Affairs Division IV for Human Security of the Swiss Federal Department of Foreign Affairs. SFG will be pleased to welcome other countries and institutions to support the process..

The report is a reflection of Strategic Foresight Group on the proceedings of the two workshops on Water Security in the Middle East held at Montreux on February 15-16, 2010. It does not represent views of the Governments of Switzerland and Sweden, nor does it indicate consensus of the participants.

List of Participants

COMMON PARTICIPANTS FOR WORKSHOP I AND II

Guest of Honour

- HRH Prince El Hassan bin Talal of Jordan

Hosts

Government of Switzerland

- Dr. Martin Dahinden, Director General, Swiss Agency for Development and Cooperation
- Ambassador Thomas Greminger, Head of Political Affairs Division IV for Human Security, Federal Department for Foreign Affairs
- Mr. François Münger, Head, Water Initiatives Division, Swiss Agency for Development and Cooperation
- Ambassador Jean-Daniel Ruch, Special Representative for the Middle East, Federal Department for Foreign Affairs
- Mr. Thomas Walder, Senior Water Specialist, Water Initiatives Division, Swiss Agency for Development and Cooperation
- Mr. Mario Carera, Senior Advisor, Office of the Special Representative for the Middle East Federal Department for Foreign Affairs
- Ms. Karin Siegenthaler, Assistant, Water Initiatives Division, Swiss Agency for Development and Cooperation
- Ms. Justine Hessler, Intern, Office of the Special Representative for the Middle East Federal Department for Foreign Affairs

Government of Sweden

- Mr Dag Juhlin-Dannfelt, Deputy Head of the Department for the Middle East and North Africa, Ministry of Foreign Affairs

Strategic Foresight Group

- Mr. Sundeep Waslekar, President
- Ms. Ilmas Futehally, Executive Director
- Ms. Ambika Vishwanath, Research Analyst

Advisory Group Member

- The Rt. Hon. Lord John Alderdice, Former Speaker of the Northern Ireland Parliament, United Kingdom

PARTICIPANTS IN WORKSHOP I, FEBRUARY 15, 2010

Iraq

- Dr. Kamal Field Al Basri, Chairman, Institute for Economic Reform
- Prof. Adel Sharif, Director, Center for Osmosis Research & Application, University of Surrey
- Prof. Muqdad Ali Aljabbari, Senior Founder, Euphrates Tigris Initiative for Cooperation (ETIC), Baghdad University
- Dr. Maha Rasheed, Water Engineer, Ministry of Irrigation
- Ms. Zahraa Hameed Jasim, Senior Correspondent, National Iraqi News Agency

Lebanon

- Dr. Selim Catafago, President, National Authority of the Litani River
- Dr. Riad Al Khouri, Dean of Business School, Lebanese French University at Erbil
- Dr. Karim Makdisi, Professor, Dept. of Political Science, American University Beirut
- Dr. Tarek Majzoub, Professor, Faculty of Law, Beirut Arab University

Syria

- Dr. Abdullah Droubi, Director, Water Division, Arab Centre for the Studies of Arid Zones and Dry Lands
- Dr. Kamil Shideed, Assistant Director General, International Cooperation, International Center for Agricultural Research in the Dry Areas
- Dr. Ayman Abdel Nour, Editor in Chief, All4Syria, Blog & Online Newspaper
- Ms. Mokhlesa Al-Zaeim, Former Water Policy Advisor to Govt. of Syria, Currently with GTZ, Yemen Office

Turkey

- Mr. Yasar Yakis, Member of Parliament & Former Foreign Minister
- Mr. Saban Disli, Member of Parliament, Chief Economic Adviser to the Prime Minister of Turkey
- Mr. Emin Onen, Member of the Parliament, Deputy Chairman of External Affairs, AK Party
- Mr. Akif Ozkaldi, Deputy Director General, State Hydraulic Works - DSI
- Ambassador Mithat Rende, Director General for Economic Affairs, Ministry of Foreign Affairs
- Dr. Aysegul Kibaroglu, Professor, Department of International Relations, Middle East Technical University
- Mr. Salim Fakioglu, Deputy Head of Planning, State Hydraulic Works - DSI
- Dr. Ibrahim Gurer, Dean, Faculty of Engineering, Gazi University

Arab League

- Ms. Chahra Ksia, Director, Water Center, League of Arab States

Jordan (Link Participants from Workshop II)

- Dr. Munther Haddadin, Former Minister, Ministry of Water and Irrigation & Former President, Jordan Valley Authority
- Dr. Musa Keilani, Editor, Al Urdon Newspaper
- Dr. Bassam Hayek, Director, El-Hassan Eco Tech Park, Royal Scientific Society

Others

- Dr. Marwa Daoudy, Visiting Professor, University of Geneva
- Mr. Osamu Itagaki, Water Expert in Syria, Japanese International Cooperation Agency
- Ms. Anthi Brouma, Program Officer, Global Water Partnership-MED

PARTICIPANTS IN WORKSHOP II, FEBRUARY 16, 2010

Israel

- Dr. Ephraim Sneh, Chairman, Center for Strategic Dialogue & Former Cabinet Minister of Health and Transportation
- Eng. Saul Arlosoroff, Former Water Commissioner & Member of Mekerot Board
- Prof. Yair Hirschfeld, Director General, Economic Cooperation Foundation
- Dr. Amnon Kartin, Lecturer at the Dept of Geography, Tel Aviv University
- Prof. Uri Shamir, Professor of Water Resources and Engineering, Technion University
- Dr. Itay Fischhendler, Head of Environmental Policy, Planning and Management Program, Department of Geography, Hebrew University of Jerusalem
- Ms. Karin Kloosterman, Founder, Green Prophet Blog

Jordan

- Dr. Munther Haddadin, Former Minister, Ministry of Water and Irrigation & Former President, Jordan Valley Authority
- Maj Gen. Mansur Rashid, Chairman, Amman Center for Peace and Development
- Dr. Mohamed Saidam, Director, Environmental Monitoring Research Unit, Royal Scientific Society
- Dr. Elias Salameh, Professor of Hydrology and Hydrochemistry, University of Jordan

- Dr. Musa Keilani, Editor, Al Urdon Newspaper
- Dr. Bassam Hayek, Director, El-Hassan Eco Tech Park, Royal Scientific Society

Palestine Territories

- Dr. Sahar Al-Qawasmi, Member, Palestine Legislative Council & Member, Parliamentarians Network for Conflict Prevention and Human Security
- Eng. Marwan Abdelhamid, Former advisor to the President of the Palestine Authority
- Dr. Jamal Yosef Al-Dadah, Head of Planning Department, Palestinian Water Authority (Gaza)
- Dr. Ayman Ismail Rabi, Founder, Palestinian Hydrology Group
- Mr. Mahmoud Labadi, Former Director General, Palestine Legislative Council & Former Director, Aid Coordination
- Eng. Monther I A Hind, Director General and Founder, Palestine Wastewater Engineers Group

Turkey

- Mr. Yasar Yakis, Member of Parliament & Former Foreign Minister
- Mr. Saban Disli, Member of Parliament, Chief Economic Adviser to the Prime Minister of Turkey
- Mr. Emin Onen, Member of the Parliament, Deputy Chairman of External Affairs, AK Party
- Mr. Akif Ozkaldi, Deputy Director General, State Hydraulic Works - DSI
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- Mr. Salim Fakioglu, Deputy Head of Planning, State Hydraulic Works - DSI
- Dr. Ibrahim Gurer, Dean, Faculty of Engineering, Gazi University

Arab League

- Ms. Chahra Ksia, Director, Water Center, League of Arab States

Lebanon (Link Participant from Workshop I)

- Dr. Riad Al Khouri, Dean of Business School, Lebanese French University at Erbil

Others

- Mr. Osamu Itagaki, Water Expert in Syria, Japanese International Cooperation Agency
- Ms. Anthi Brouma, Program Officer, Global Water Partnership-MED



Participants of Workshop I



Participants of Workshop II