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## **Economic and Social Commission for Western Asia (ESCWA)**

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Item 7 (a) of the provisional agenda

# REVIEW OF ACTIONS TAKEN IN THE FIELD OF WATER RESOURCES SINCE THE EIGHTH SESSION OF THE COMMITTEE ON WATER RESOURCES

# IMPLEMENTATION OF RECOMMENDATIONS MADE BY THE COMMITTEE ON WATER RESOURCES AT ITS EIGHTH SESSION

### Summary

The Committee on Water Resources was established pursuant to resolution 205 (XVIII) adopted by the Economic and Social Commission for Western Asia (ESCWA) on 25 May 1995, and endorsed by the Economic and Social Council in resolution 26/1995 of 24 July 1995, in recognition of the vital role played by the water resources sector in the economic and social development of the countries of the region. The Committee helps in setting priorities for the programme of work of ESCWA in the field of water resources, in supporting member countries in the implementation of recommendations made at regional and international conferences and in fostering intra-regional cooperation.

The Committee convenes its sessions biannually. It held its eighth session in Beirut from 17 to 19 December 2008, and made a set of recommendations addressed to member countries and another to ESCWA secretariat. The Water Resources Section of the Sustainable Development and Productivity Division at ESCWA is responsible for carrying out work in that field. This document presents actions and activities undertaken by ESCWA pursuant to the recommendations of the Committee on Water Resources at its eighth session.

## ACRONYMS AND ABBREVIATIONS

ACSAD Arab Center for the Studies of Arid Zones and Dry Lands

ACWUA Arab Countries Water Utilities Association

AWARENET Arab Integrated Water Resources Management Network

AWC Arab Water Council

BGR Federal Institute for Geosciences and Natural Resources in Germany
BMZ German Federal Ministry for Economic Cooperation and Development

CCWG AWARENET Climate Change Working Group

CEDARE Center for Environment and Development for the Arab Region and Europe

COP Conference of the Parties to the United Nations Framework Convention on Climate

Change

CSD United Nations Commission on Sustainable Development
ECLAC Economic Commission for Latin America and the Caribbean
ESIAP Environment Statistics, Indicators and Accounts Project

GIS Geographic Information System

GTZ German Agency for Technical Cooperation
GWP-MED Global Water Partnership-Mediterranean
IDRC International Development Research Center
IWRM integrated water resources management

MDGs Millennium Development Goals

RAED Arab Network for Environment and Development

RCM Regional Coordination Mechanism
RIM Regional Implementation Meeting

Sida Swedish International Development Cooperation Agency

SIWI Stockholm International Water Institute

SMHI Swedish Meteorological and Hydrological Institute
TWG-CC RCM Thematic Working Group on Climate Change

UNEP United Nations Environment Programme
UNEP/ROWA UNEP Regional Office for West Asia

WCC World Climate Conference

WEAP Water Evaluation and Planning System

WHO World Health Organization

WMO World Meteorological Organization

WRS Water Resources Section of the Sustainable Development and Productivity Division at

**ESCWA** 

WSP water safety plan

# RECOMMENDATIONS MADE BY THE COMMITTEE ON WATER RESOURCES AT ITS EIGHTH SESSION AND MEASURES TAKEN TO IMPLEMENT THEM

At its eighth session held in Beirut from 17 to 19 December 2008, the Committee on Water Resources issued recommendations addressed to the Economic and Social Commission for Western Asia (ESCWA) and others addressed to ESCWA member countries. Those recommendations are included in the report of the Committee on its eighth session in document E/ESCWA/SDPD/2008/IG.1/7. The present document reviews only actions and activities undertaken by ESCWA to implement the recommendations pertaining to its work. Each recommendation is reproduced and followed by the relevant implementation measures.

#### IMPLEMENTATION OF RECOMMENDATIONS ADDRESSED TO ESCWA

#### Recommendation (a)

Accelerate the launching of procedures related to the implementation of ESCWA resolution 281 (XXV) on addressing climate change issues in the Arab region in terms of preparing an assessment report on the vulnerability of economic and social development in the region to climate change, with particular emphasis on freshwater resources, in coordination and cooperation with the League of Arab States and United Nations agencies working in the region.

#### Measures taken

#### A. REGIONAL CONSULTATIONS AND MEETINGS

- 1. Pursuant to General Assembly resolution 63/17 of 10 November 2008 on "Cooperation between the United Nations and the League of Arab States", and mindful of ESCWA resolution 261 (XXIII) of 12 May 2005 on "Strengthening the cooperation between ESCWA and the League of Arab States in the field of economic and social development", the Council of the League of Arab States and the United Nations Secretariat organized "The Ninth Sectoral Meeting between the League of Arab States and the United Nations and their Specialized Organizations on Climate Change" (Cairo, 17-18 June 2009), which was chaired by ESCWA on behalf of the United Nations Secretary-General. ESCWA presented a paper on climate change mitigation in the Arab region that addressed several of the themes included in the draft Arab Framework Action Plan on Climate Change for 2010-2020, while the United Nations Environment Programme/Regional Office for West Asia (UNEP/ROWA) gave a presentation on climate change adaptation. Both papers were based on contributions received from United Nations organizations serving the region. The meeting concluded with the recommendation that the specialized organizations of the United Nations and the League of Arab States pursue joint action for the preparation of vulnerability studies on the socio-economic impacts of climate change, including an assessment of vulnerability and impacts of climate change on water resources management.
- 2. The Regional Coordination Mechanism (RCM) which is led by ESCWA and guided by the United Nations Chief Executives Board (CEB), established the Thematic Working Group on Climate Change (TWG-CC) in 2008 for improved inter-agency coordination on climate change activities in the region. The League of Arab States became a member of the RCM in 2009. UNEP/ROWA serves as Chair of the TWG-CC. During the first meeting of the TWG-CC (Cairo, 26 November 2008), ESCWA, the United Nations Development Programme (UNDP), UNEP and the United Nations Educational, Scientific and Cultural Organization (UNESCO) agreed to collaborate on the preparation of a vulnerability assessment of water resources in the region as one of six activities that would be coordinated at the inter-agency level within the RCM. Initial collaboration between the League of Arab States, UNEP/ROWA and ESCWA followed and resulted in ESCWA being assigned leadership of that collaborative initiative. The second meeting of the TWG-CC (Beirut, 10 November 2010) was held prior to the fourteenth meeting of the RCM (Beirut, 11-12 November 2010), which adopted the report of the TWG-CC. The report identifies the regular and consistent work on the vulnerability assessment to be the most successful area of inter-agency collaboration in the region.

- 3. In order to formalize a common approach for conducting the regional climate change vulnerability assessment, ESCWA organized, in collaboration with the League of Arab States and UNEP/ROWA, the expert group meeting "Towards Assessing the Vulnerability of Water Resources to Climate Change in the Arab Region" (Beirut, 26-28 October 2009), which was partially funded by the Islamic Educational, Scientific and Cultural Organization (ISESCO). The meeting fostered consensus on the purpose, scope and methods that would be applied for the preparation of the assessment. Specifically, the meeting reviewed different regional climate modeling approaches and parameters and investigated knowledge gaps and data availability. It concluded with a consensus that the assessment would consist of a three-year joint project based on four pillars. A Core Group of experts representing governments and United Nations and League of Arab States organizations was established to support the launching of that collaborative initiative. The report of the meeting can be found under E/ESCWA/SDPD/2009/WG.3/3.
- 4. Based on the outcomes of the expert group meeting, ESCWA prepared in January 2010 a concept note for the regional initiative, in which it elaborates on the four main pillars discussed during the meeting, namely: (a) baseline review; (b) impact analysis and vulnerability assessment; (c) raising awareness and disseminating information; and (d) capacity-building and strengthening institutions. The note was circulated for comment by the Core Group and the RCM TWG-CC. It was finalized in March 2010 and subsequently used as the basis for disseminating information about the project, coordinating with partners and soliciting funding from potential donors. A project brief was then submitted by the Arab Center for the Studies of Arid Zones and Dry Lands (ACSAD), under the auspices of the League of Arab States secretariat, to the Arab Ministerial Water Council (AMWC) at its second session in July 2010, which approved the project for implementation.
- 5. In order to secure funding and solidify partnerships with organizations and institutions interested in supporting the regional initiative, ESCWA arranged a series of meetings and consultations with potential partners and donors, which included meetings with the Swedish International Development Cooperation Agency (Sida), the International Development Research Center (IDRC) and the German Agency for Technical Cooperation (GTZ) in May 2010, as well as subsequent follow-up consultations with those organizations. ESCWA also coordinated the implementation of the regional initiative with potential partners, including the World Meteorological Organization (WMO) and the Swedish Meteorological and Hydrological Institute (SMHI) which conduct training programmes on regional climate modeling and monitoring for Arab experts. Additional meetings were organized with ACSAD (Damascus, 16 September 2010) as well as a second round of consultations with UNEP/ROWA and League of Arab States organizations (Cairo, October 2010).
- 6. In order to move forward with elaborating the regional initiative, ESCWA organized with the League of Arab States, the expert group meeting on the "Development of a Vulnerability Assessment for the Arab Region to Assess Climate Change Impacts on the Water Resources Sector" (Beirut, 8-10 November 2010). The meeting served to update knowledge on the work being undertaken at the national and sub-regional levels, and conduct interactive discussions at the plenary and working group levels to build consensus on the way forward for implementing the regional initiative. It concluded with the expression of interest by several governmental, regional and international representatives to support various components of the initiative. The report of the meeting can be found under E/ESCWA/SDPD/2010/WG.3/3.

## B. REGIONAL PROJECTS

1. Based on the outcomes of the regional consultations and preparatory activities, ESCWA signed a project agreement with Sida in December 2010 to lead a series of activities for the implementation of the regional initiative in partnership with the League of Arab States, ACSAD, WMO and SMHI. The project aims at: (a) establishing a regional knowledge hub for climate and water resources information and modeling in the Arab region; (b) identifying potential climate change impacts on water resources in the Arab region and associated vulnerability hotspots; (c) improving capacity and institutional networking for climate change and water resources monitoring and adaptation; and (d) increasing awareness and access to information about climate change impacts on water resources in the Arab region.

2. The IDRC expressed its interest in building upon the outcomes of the project and supporting the preparation of the vulnerability assessment through a collaborative regional project that would be implemented in consultation with ESCWA and regional researchers under the leadership of ACSAD. A project document was prepared by ACSAD in consultation with ESCWA and submitted to IDRC to this end.

#### C. STUDIES AND TECHNICAL MATERIALS

- 1. In October 2009, ESCWA prepared a "Review of Methodologies and Possible Scenarios for Conducting Vulnerability Assessments to Climate Change" (E/ESCWA/SDPD/2009/WG.3/3). The Review covers the components and assumptions underlying general circulation models (GCMs) and regional climate models (RCMs), and examines issues related to uncertainty, validation of models, building scenarios, and data and information associated with conducting impact analysis and vulnerability assessment.
- 2. In November 2010, ESCWA supported the preparation of "A Conceptual Framework for Assessing Vulnerability of Arab States to Climate Change Impact on Fresh Water Resources" (E/ESCWA/SDPD/2010/WG.3/2). The report offers suggestions for the development of an integrated assessment that links climate change impact assessment to vulnerability assessment. It presents different assessment approaches and proposes ways in which the assessment of socio-economic and environmental vulnerability to climate change impacts on freshwater resources can be informed by a set of indicators. The paper was prepared by the chairman of the Climate Change Working Group (CCWG) of the Arab Integrated Water Resources Management Network (AWARENET) for ESCWA.

## **Recommendation (b)**

Identify national and regional resources available for measuring and evaluating the impact of climate change on water resources as a preliminary step towards establishing a coordination mechanism for providing the documented data needed to successfully carry out the relevant activities.

### Measures taken

## A. MEETINGS AND WORKSHOPS

- 1. ESCWA took part in the "Fifteenth meeting of the League of Arab States Committee on Climate Change" (Cairo, 12-14 July 2009), in which the following issues were discussed: (a) the Arab preparation for the "Third World Climate Conference" (WCC-3) (Geneva, 31 August 4 September 2009); (b) the Arab involvement in the Intergovernmental Panel on Climate Change (IPCC) activities and the preparation of the Fifth Assessment Report (AR5); and (c) the preparation for the fifteenth session of the Conference of the Parties to the United Nations Framework Convention on Climate Change (COP-15) (Copenhagen, 7-18 December 2009). In addition, an inventory of recent research and scientific studies on climate sciences and the climate change impacts and adaptation measures was presented during the meeting.
- 2. ESCWA participated in the WCC-3 convened by the World Meteorological Organization under the theme "Better climate information for a better future". Climate scientists, sectoral experts and decision makers established a Global Framework for Climate Services to strengthen production, availability, delivery and application of science-based climate prediction and services. ESCWA attended plenary and round-table sessions on a variety of topics, including climate risk management; economic and social benefits of climate information; advancing climate prediction science; climate extremes, warning systems and disaster risk reduction; mainstreaming climate information; climate and biodiversity and natural resources management; climate and water; climate, transportation and tourism; climate and communities; climate adaptation and the Copenhagen process.

- 3. ESCWA participated in the regional workshop on "Climate Change and Disaster Risk Reduction: Challenges and Future Actions" (Cairo, 21-23 November 2009), which was organized by the United Nations International Strategy for Disaster Reduction/Regional Office for Arab States (UNISDR/ROAS), in collaboration with the League of Arab States, the World Bank and other regional organizations. ESCWA gave a presentation on "Existing institutional capacities and coordination mechanisms for climate change adaptation" and provided technical support to the working groups.
- 4. ESCWA attended the Arab-Latin American expert group meeting on "Development of the Scientific and Technological Cooperation on Climate Change" that was hosted by the League of Arab States (Damascus, 4-6 May 2010). Discussions addressed environmental technologies, climate monitoring systems, trade opportunities and best practices that could be transferred from Latin American countries to Arab countries in the spirit of South-South cooperation.

#### B. REGIONAL NETWORKING

ESCWA organized, in partnership with the Federal Institute for Geosciences and Natural Resources (BGR), the first meeting of the CCWG (Beirut, 29-30 July 2009). The CCWG was established to produce concrete outputs on linkages between climate change and integrated water resources management (IWRM). It developed a work plan for the period 2009-2010 which consists of preparing the following: (a) a review of the literature on and identification of gaps in the vulnerability of water resources to climate change in the Arab region; (b) a policy brief and analysis of the Copenhagen Climate Change Treaty Draft and its effects on water in the Arab region; and (c) a roster of Arab experts in climate change and water resources to be developed as a searchable index.

## **Recommendation (c)**

Support member countries in building national capacity and enhancing regional cooperation towards formulating measures and strategies for adapting to the potential impact of climate change on water resources, and provide needed technical support to incorporate these strategies into IWRM policies and plans.

## Measures taken

#### A. MEETINGS AND WORKSHOPS

- 1. ESCWA participated in the COP-15 (Copenhagen, 7-18 December 2009), and made a statement on the expected challenges and potential climate change impacts on the region at the United Nations Regional Commissions Joint Side Event on Climate Change. It underscored the political will and commitment expressed by ESCWA member countries to achieve social development and address climate change, citing regional initiatives such as the Arab Initiative on Sustainable Development (2002); the Abu Dhabi Declaration on Environment and Energy (2003); and the Arab Ministerial Declaration on Climate Change (2007).
- 2. At the fifth meeting of the ESCWA Consultative Committee on Scientific and Technological Development and Technological Innovation (Beirut, 29-30 March 2010), the Sustainable Development and Productivity Division (SDPD) of ESCWA led a session on "Climate Change and Technology". Presentations covered the following issues: technologies for climate change adaptation related to the water resources sector; technologies for climate change mitigation related to the energy sector; and general perspectives of climate change and challenges for development in the Arab region.

## B. REGIONAL NETWORKING AND PROJECTS

1. ESCWA took part in the UNEP regional consultation meeting on the "Development of the Global Climate Change Adaptation Network in West Asia" (Muscat, 29-30 June 2009). The Global Network and its regional counterparts were endorsed by COP-14. Discussions covered the following: developing a general

work plan for the formation of a regional network, identifying regional priorities, and developing the network governance structure. Anticipated events for the first phase of the network operation 2009-2010 and coordination mechanisms with other networks both globally and regionally were also discussed.

2. ESCWA prepared a concept note for a proposed three-year project on "Developing Capacities of the Arab Countries for Climate Change Adaptation by Applying IWRM Tools in Key Sectors" that was submitted for funding under the United Nations Development Account in October 2010. The three-year project will be considered for approval in early 2011 and would be implemented in cooperation with UNEP/ROWA, ACSAD, the World Health Organization (WHO) and the Arab Countries Water Utilities Association (ACWUA).

#### C. STUDIES AND TECHNICAL MATERIALS

- 1. The third issue of ESCWA Water Development Report entitled "Role of Desalination in Addressing Water Scarcity" (E/ESCWA/SDPD/2009/4) focuses on the emerging role of desalination as a core component of water resources development plans in the ESCWA region. The report encourages water policymakers to consider the full costs of desalination when deciding on water demand and supply options, and water transportation costs and environmental externalities. An in-depth analysis of those costs is thus provided to raise awareness of the potential substantial costs of a desalination project, and the associated trade-offs involved in burning more energy to produce more water.
- 2. A pamphlet prepared by ESCWA for the World Environment Day 2009 and entitled "UNite to Combat Climate Change" (E/ESCWA/PI/2009/3) contains information on the possible impacts of climate change on various sectors in the Arab Region, including coastal areas, agriculture, water resources, energy, biodiversity, forestry, industry, trade and transport in addition to human settlements and public health. It suggests adaptation and mitigation measures, identifies actions being undertaken by ESCWA to support member countries in those areas, and highlights coordination mechanisms at the regional and global levels.
- 3. ESCWA is preparing a study on "Assessing the Impacts of Climate Change on Water Resources in the Arab Region" which focuses on the development of an integrated assessment methodology to assess the impact of climate change on the water sector and its associated effects on socio-economic vulnerability so as to better inform decision makers on ways to identify key climate change concerns in the region.

## **Recommendation (d)**

Continue providing technical support to member countries to build national capacity in implementing IWRM concepts, especially in the management of shared water resources (surface and groundwater), and update the assessment of the institutional and legislative tools available for the water resources sector in member countries requesting it, provided it is done by ESCWA itself or in coordination with the Federal Institute for Geosciences and Natural Resources (BGR) and other relevant regional and international organizations.

#### Measures taken

# A. SHARED WATER RESOURCES MANAGEMENT

## 1. Meetings and workshops

1. ESCWA organized, in cooperation with BGR, the expert group meeting on "Applying Integrated Water Resources Management Principles in Managing Shared Water Resources in the ESCWA Region" (Beirut, 1-3 December 2009). The meeting comes after several ongoing initiatives undertaken by ESCWA and its partners to strengthen the capacity of member countries in developing and implementing IWRM plans, and to promote regional cooperation on shared water resources management. The three-day meeting focused on three clusters of principles: (a) cooperation and participation; (b) equitable, reasonable, and

sustainable use; and (c) conflict resolution. In-depth discussions and experience sharing on key issues took place which facilitated reaching a consensus on the preparation of a regional vision for shared water resources management.

- 2. ESCWA contributed and provided expert support to a meeting organized by the League of Arab States Centre of Water and Arab Water Security Studies (Damascus, 21-22 December 2009), to review General Assembly resolution 63/124 of 11 December 2008 on the law of transboundary aquifers. This included the preparation of a "Legal Review of the United Nations General Assembly Resolution on the Law of Transboundary Aquifers", which was presented to the meeting, as well as a presentation on the outcomes of the expert group meeting on "Applying IWRM Principles in Managing Shared Water Resources: Towards a Regional Vision" which was held earlier that month. The legal review guided the participants into in-depth discussion on the legal aspects of shared aquifers, and led to increased understanding of the complex issue of shared groundwater resources.
- 3. ESCWA attended the expert group meeting on "National Capacity Needs for the Effective Joint Management of Shared Water Resources in Arab States" (Tunis, 7-9 June 2010) which was organized by the United Nations Development Programme (UNDP). ESCWA gave a presentation on "Knowledge Management and Analysis of ESCWA Member Countries Capacities in Managing Shared Water Resources" in which it stressed the importance of integrating internationally accepted legal principles in water agreements. It also identified capacity needs and recommended policies and national institutional arrangements needed to strengthen the capacity of member countries in implementing IWRM concepts in managing shared water resources in the region.

## 2. Projects implemented with BGR

Within the framework of the ESCWA-BGR Joint Cooperation Project on the Water Sector supported by the Federal Republic of Germany through the German Federal Ministry for Economic Cooperation and Development (BMZ), a number of projects are under implementation to support the integrated management of shared water resources in the region. These are detailed below.

#### 1. Inventory of Shared Water Resources in Western Asia

- (a) The Inventory aims at raising awareness of decision makers and general public, improving the knowledge base and facilitating access to information on shared water resources in Western Asia. It will also help in establishing a link between the knowledge base and management practices at both the national and inter-state levels, and in supporting regional processes towards improved dialogue and cooperation over shared water resources;
- (b) The Inventory provides a fresh look at information on shared groundwater systems and surface water basins in Western Asia, including sub-basins, with emphasis on hydrology, hydrogeology, water resources development and use, as well as the status of cooperation and management. It will include an in-depth analysis of issues related to shared water resources in the ESCWA region targeting water decision makers, as well as non-technical government representatives from other sectors, the general public, media, donor agencies and international organizations.

## 2. Support for Monitoring Shared Water Resources

(a) This project assists member countries in obtaining more comprehensive and reliable data on their shared water resources through the establishment of hydrogeological monitoring systems for water quality and/or quantity as well as for data verification and interpretation procedures. Assistance includes: (a) development of surface and groundwater monitoring plans for shared water basins or parts thereof which fall in the territory of the requesting country; (b) acquisition, installation and/or calibration of monitoring equipment and required infrastructure as well as appropriate data management systems (including telemetric

data transfers); (c) specialized training of staff tasked with collection and interpretation of monitoring data; and (d) assistance in further data interpretation and use, e.g. determination of water balances, groundwater flow patterns, or assessment of further basin parameters including socio-economic data and potential impacts on surface and groundwater quality and quantity;

(b) During the first phase of the project, Jordan, Lebanon and the Syrian Arab Republic have requested support for monitoring one of their shared water resources. Pilot projects were initiated following official requests to ESCWA by the designated ministries and subsequent communications by the ESCWA-BGR Water Project to ensure the commitment of the respective government and relevant authorities. Project activities are implemented jointly with the designated national or sub-national institution and within their designated mandate and capacity for water monitoring and data management.

#### B. INTEGRATED WATER RESOURCES MANAGEMENT

#### 1. Meetings and workshops

- 1. ESCWA served on a panel chaired by the Lebanese Minister of Environment during the "International Colloquium on Water Management in the Mediterranean Basin" (Beirut, 19 April 2010), and gave a presentation on "Integrated Water Resources Management: Challenges for Lebanon and the Region".
- 2. ESCWA attended the "Training workshop on water safety plans (WSPs)" (Cape Town, South Africa, 24 April 2009) which highlighted the importance of WSPs to ensure the safety of drinking water supply. It discussed how efficiency and effectiveness of water utilities in delivering adequate quantities of safe water to consumers can be improved by using WSPs. Using a comprehensive risk assessment and risk management approach that encompasses all steps from catchment to consumer, water utilities can identify and address priority issues that affect service delivery. It was noted that ESCWA and BGR were interested in extending the WSP training into the Middle East, most likely through the ACWUA or AWARENET networks.
- 3. ESCWA participated in the "Regional Rotary International Conference on Water" (Manama, 29 April 2 May 2010), by serving on a discussion panel and giving a presentation on "Water in the ESCWA Region: Status and Challenges".
- 4. ESCWA contributed to the international conference on "Applying Water Evaluation and Planning System (WEAP) as a Decision Support System for Integrated Water Resources Management" (Damascus, 25-27 May 2009). Case studies from the region gave a good overview of the technical challenges and approaches in applying WEAP in transboundary water management, water policy evaluations, reservoir management, basin models and climate change impacts. Future development efforts in WEAP and its module components will focus on including more complex groundwater flow models and groundwater transport modelling.
- 5. In coordination with ACSAD and BGR, and at the request of the Lebanese Ministry of Energy and Water, ESCWA organized a training workshop for the Lebanese institutions on "Water Management Decision Support System: WEAP" (Beirut, 7-9 December 2009). The workshop provided training on WEAP as a decision support system for water resources management and decision-making on allocations. It also served to increase the technical understanding of government officials and national experts on how to set up WEAP scenarios and simulations.
- 6. ESCWA participated in the "Second Round Table on Sustainable Consumption and Production in the Arab Region: Towards Resource Efficient Economies" (Cairo, 27-29 September 2009). A plan of action based on the Arab Regional Strategy for Sustainable Consumption and Production that incorporates regional priorities was prepared. ESCWA is co-organizing with the League of Arab States and UNEP/ROWA the "Third Round Table on Sustainable Consumption and Production in the Arab Region" (Cairo, 26-27 January 2010), during which it will give a presentation on sustainable consumption and production in the water sector.

## 2. Regional networks

- 1. AWARENET established its secretariat in 2006, which is housed at ESCWA headquarters. The network serves as a regional forum for dialogue and exchange of ideas to coordinate research, build capacity leading to improved water resources management and improved access to knowledge on IWRM principles. It has carried out several activities aiming at building capacity of its members in the area of IWRM.
- 2. At the first meeting of the AWARENET CCWG (Beirut, 29-30 July 2009), which was hosted by ESCWA and sponsored by BGR, the Working Group selected a chair and vice-chair and developed a three point work plan for 2009-2010. Discussion is underway on whether to form additional working groups on key IWRM topics facing the region.

#### C. WATER SUPPLY AND SANITATION

Within the framework of the ESCWA-GTZ Joint Cooperation Project supported by the Federal Republic of Germany through the BMZ on the modernization of the water supply and sanitation sector in the region, a number of activities were carried out in 2010 to strengthen ACWUA, which was established by the Project. This includes the following activities.

- 1. The "First General Assembly of ACWUA" (Alexandria, Egypt, 18-19 November 2008), which attracted more than 150 members from nine countries. The first ACWUA Board of Directors was elected at the meeting, and comprised national representatives of the utility boards of all member countries and a number of expert individual members. Decisions were made on planned activities, the budget and on conducting biannual meetings.
- 2. The ACWUA "Best Practice Conference on Capacity Development for Water and Sanitation Utilities in the Arab Region" (Alexandria, Egypt, 18-19 November 2008) was held in parallel to the First General Assembly of ACWUA. The conference documented regional best practice by country reports, sessions about quality management in utilities, various case studies and a panel discussion. It introduced new approaches for more efficient management in the field of water and sanitation. An accompanying exhibition of various Arab and European companies and suppliers active in the fields of water supply and sewage systems was also organized.
- 3. The official launching of ACWUA was held in Amman, on 30 July 2009 following the establishment of the ACWUA secretariat in Amman earlier in the year. The secretariat was established with financial support provided by the Government of Jordan and the ESCWA-GTZ Water Project. The launching was held under the patronage of the Jordanian Minister of Water and Irrigation and was attended by over 80 high-ranking regional and international officials, including members of ACWUA Board of Directors, heads of Arab water utilities, representatives from donor agencies and international organizations as well as experts and representatives from the private sector.
- 4. The Second ACWUA Board of Directors Meeting was held following the launching ceremony and discussed the establishment of working groups that would guide the substantive work of ACWUA. Several working groups were identified, including those focused on the management of utilities and water resources, water and health, utilities reform, benchmarking, as well as capacity-building and training, the latter of which was already operational. During the meeting, the Board requested ESCWA to review the ACWUA Charter and By-Laws and propose revisions for its consideration as may be necessary.
- 5. ESCWA participated in the "ACWUA Mid-Term Project Review Workshop" (Amman, 4-5 November 2009) which aimed at discussing the activities and indicators of ESCWA-GTZ Water Project.
- 6. ESCWA took part in the ACWUA "Best Practice Conference on Non-Revenue Water Management in the Arab Region: Solutions for Drinking Water Loss Reduction" (Rabat, 20-21 January 2010).

The conference brought together almost 300 water experts from 14 Arab countries. A side meeting for ACWUA Board members and conference delegates was organized by ESCWA on Target 7.C of the Millennium Development Goals (MDGs), which consists of halving, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation, to present a background on the AMWC resolution regarding the establishment of a regional mechanism and initiative to monitor and report on water supply and sanitation in the Arab region.

- 7. ESCWA participated in the third ACWUA Board of Directors Meeting (Rabat, 22 January 2010), during which the Board approved a new work plan for 2010-2014, internal employment regulations, the Auditors Balance Sheet for 2009 and a cooperation agreement with Capacity Building International, Germany (InWEnt). During this meeting, ESCWA provided comments on the ACWUA Charter and By-Laws.
- 8. ESCWA participated in the first Arab Water Week organized by ACWUA (5-9 December 2010), which focused on cost recovery at water and wastewater utilities, and in the "Second General Assembly of ACWUA" (Amman, 7 December 2010), which elected a new Board of Directors.

#### **Recommendation (e)**

Contribute to raising awareness throughout society about the main issues surrounding the sustainable development of water resources, especially those related to the impact of climate change on water resources in the region and the adaptation measures required, by preparing various printed and electronic publications and urging relevant bodies to implement and activate these measures.

#### Measures taken

## A. STUDIES AND TECHNICAL MATERIALS

- 1. ESCWA prepared a booklet entitled "Water Resources Issues in the ESCWA Region: Country Fact Sheets" (E/ESCWA/SDPD/2009/Technical Paper.2) that examines the water situation in the region, with particular emphasis on the desalination industry as a growing source of freshwater in many ESCWA member countries. The booklet reviews the trends in population growth, freshwater availability, and water use, highlighting the consumption patterns of the most water intensive sectors in each country. It also includes charts on the status of water resources in ESCWA member countries, and details about desalination in each country in terms of quantity produced; type of technology and type of feed water used, as well as the predicted future volume of desalination produced per country.
- 2. On the occasion of the Arab Environment Day 2009, ESCWA prepared a pamphlet entitled "Education for Sustainable Development: Climate Change Effects and Sustainable Development" (E/ESCWA/PI/2009/7). The League of Arab States secretariat decided to choose that slogan for the 2009 celebration to coincide with the United Nations Decade of Education for Sustainable Development (2005-2014). The pamphlet highlighted the impact of climate change and disaster risk on natural resources in the Arab region. It also listed the main activities/initiatives undertaken by ESCWA and other United Nations agencies in building awareness on climate change in the region.
- 3. The United Nations proclaimed 2010 as the International Year of Biodiversity by promoting the message "Biodiversity is Life, Biodiversity is Our Life". In that respect, ESCWA prepared a pamphlet (E/ESCWA/SDPD/2010/Technical Paper.1) to celebrate the "World Environment Day" that promotes the theme "Many Species, One Planet, One Future" for 2010. The pamphlet highlighted several biodiversity conservation initiatives, including the Convention on Biological Diversity (CBD). Information on the direct causes of biodiversity loss and underlying causes of ecosystem degradation are also detailed, as well as biodiversity conservation initiatives in selected ESCWA member countries. The pamphlet further includes statistical highlights on biodiversity in the ESCWA region.

#### B. DELIVERY OF STUDIES AND TECHNICAL MATERIALS AT MEETINGS

- 1. ESCWA held a press conference to mark the "First Arab Water Day" (United Nations House, Beirut, 2 March 2010), which was proclaimed in a resolution adopted by the AMWC in June 2009 establishing the third of March of every year to celebrate that day. The theme identified by the Council for 2010 was "For Common Arab Water Security". The event was held under the auspices of the Lebanese Minister of Energy and Water Resources and included statements by Arab ambassadors in Lebanon. A poster with calendar issued in commemoration of the day was distributed during the event.
- 2. In commemoration of the "World Water Day", the Lebanese Ministry of Energy and Water Resources and ESCWA gave presentations at the "Model UN event" hosted by the Lebanese American University (Jbeil, Lebanon, 22 March 2010). Country water fact sheets prepared by ESCWA were distributed to participants during the event to raise awareness about key water issues facing the region.
- 3. The Executive Secretary of ESCWA made a statement to the Lebanese Lawyers Syndicate during a press conference to commemorate the "World Environment Day" (Beirut, 2 June 2010). The statement reviewed the anticipated impacts of climate change on the Arab region, the steps taken by member countries to control them, and the challenges facing biodiversity in the Arab region, particularly the unsustainable exploitation of natural resources and ecosystems.

#### **Recommendation (f)**

Follow up on meetings of the Fifth World Water Forum (WWF-5) to be held in Istanbul, in 2009; participate in the meetings of the Arab Water Council, the League of Arab States and other regional and international bodies such as the Global Water Partnership-Mediterranean (GWP-Med) and UN-Water; follow up on relevant ministerial meetings in the region; and continue to coordinate with these bodies in carrying out related activities as resources permit.

#### Measures taken

#### A. MEETINGS AND WORKSHOPS

- 1. ESCWA participated in the second "Beirut Water Week" (Beirut, 4-7 February 2009), which was organized by the Lebanese Ministry of Energy and Water in cooperation with GWP-MED, in preparation for the Fifth World Water Forum, particularly its Mediterranean session. During this Mediterranean multi-event, which gathered around 240 delegates including Ministers, water directors, experts and representatives of national and international organizations, discussions covered key IWRM questions at the national and regional levels, particularly in the context of the Euro-Mediterranean Partnership, and issues emerging from the Ministerial Declaration of the Euro-Mediterranean Ministerial Conference on Water (Dead Sea, Jordan, December 2008), including the development of a new Strategy for Water in the Mediterranean and identification of criteria for future technical projects.
- 2. At the "Ministerial Forum on Water Resources" (Oman, 23-25 February 2009), which was organized by the Group of 77 and China, ESCWA presented a paper on the "Status of regional cooperation among developing countries in the field of water resources within the purview of ESCWA". The Forum aimed at exchanging scientific and technical expertise in disseminating information on water resources, improving communication, and establishing knowledge transfer mechanisms to governments and decision makers at the local and international levels.
- 3. At the "Fifth World Water Forum" (Istanbul, 16-22 March 2009), ESCWA participated in the sessions organized under Theme 2: Advancing Human Development and the MDGs. The sessions highlighted the importance of continuous monitoring of progress towards the MDGs, ensuring water, sanitation and hygiene for all through sanitation advocacy, collaboration in global, national and sub-national monitoring, utility

reforms and education in schools. In addition, ESCWA presented the findings of its studies on the challenges and opportunities to achieve the MDGs in the Arab region. Moreover, being a member of the panel on "Frameworks and approaches: International, regional and national" in the session titled "Data for All" and convened by the United Nations Statistics Division (UNSD), the National Water Commission of Mexico (CONAGUA), WMO and the International Association of Hydrological Sciences (IAHS), ESCWA presented regional experience in developing water accounts.

- 4. ESCWA participated in the workshop on the production of the fourth edition of the "World Water Development Report" (WWDR-4) during the "World Water Week" (Stockholm, 14-21 August 2009). It also gave a presentation on "Water and Energy for Development" during the seminar on "Water and Energy Linkages in the Middle East", which was organized by Stockholm International Water Institute (SIWI) and Sida.
- 5. ESCWA coordinated the Arab regional preparations for the eighteenth session of the United Nations Commission on Sustainable Development (CSD-18). For the CSD-18/CSD-19 cycle (2010-2011), ESCWA lead the organization of the "Regional Implementation Meeting" (RIM) (Cairo, 4-6 October 2009), in cooperation with the League of Arab States and UNEP/ROWA, through the Joint Committee on Environment and Development in the Arab Region (JCEDAR). The RIM discussed the regional implementation report\* which assesses progress achieved in the countries of the region regarding the five thematic areas of the current CSD cycle, namely, transport, chemicals, waste management, mining, and the Ten Year Framework of Programmes on Sustainable Consumption and Production, which includes reference to the need for sustainable use of water resources. In consultation with the League of Arab States, UNEP/ROWA and Arab member States, ESCWA finalized and submitted the regional implementation report to the CSD-18 session in New York (3-14 May 2010).
- 6. ESCWA participated in the meeting of the "UN-Water Task Force on Transboundary Waters" (Bonn, Germany, 25-26 February 2010), since renamed the Thematic Priority Area on Transboundary Waters. Discussions focused on the mapping activities of the Task Force with a view to improving awareness of activities on shared water resources conducted by United Nations organizations.
- 7. ESCWA participated in the fourth meeting of the "UN-Water Task Force on Water and Climate Change" (Bonn, Germany, 10-12 May 2010), since renamed the "Water and Climate Change Thematic Priority Area. The meeting aimed at reviewing the results of the ongoing mapping exercise and the progress of the work of the Task Force work program, and planning the activities for 2011-2012.
- 8. ESCWA participated in the ninth Water Science and Technology Association (WSTA) Gulf Water Conference on "Water Sustainability in the Countries of the Gulf Cooperation Council: The Need for a Socio-Economic and Environmental Definition" (Muscat, 22-25 March 2010). ESCWA gave a presentation on its activities highlighting the current focus on climate change and its impact on water resources.
- 9. ESCWA attended the "First Meeting of the Preparatory Committee for the United Nations Conference on Sustainable Development (Rio +20)" (New York, 17-19 May 2010). At the plenary session, ESCWA made a statement on behalf of ESCWA and the Economic Commission for Latin America and the Caribbean (ECLAC). The meeting aimed at assessing the progress made and the remaining gaps in implementing outcomes of major summits on sustainable development. It also addressed new and emerging challenges, a green economy in the context of sustainable development and poverty eradication, and the institutional framework for sustainable development.
- 10. ESCWA participated in the "World Water Week" (Stockholm, 5-10 September 2010), which was organized by SIWI under the theme "The Water Quality Challenge". The theme was chosen in an attempt to

<sup>\*</sup> ESCWA, Report of the Regional Implementation Meeting on the Five Areas Presented to the United Nations Commission on Sustainable Development on its Eighteenth Session, E/ESCWA/SDPD/2009/WP.2. Available at: www.escwa.un.org.

deepen the understanding of, stimulate ideas on, and engage the water community around the challenges related to water quality. ESCWA participated in sessions on a variety of topics, including IWRM, water use efficiency, integrated pollution prevention, climate change, and the monitoring of MDG targets on water supply and sanitation. Prior to the World Water Week, ESCWA participated in the thirteenth meeting of the UN-Water (4-5 September 2010), and discussed opportunities for collaboration with UN-Water partners and members.

### **Recommendation (g)**

Continue to offer technical cooperation and regional advisory programmes to member countries, provided that the requesting countries specify and clarify the tasks required and prepare the terms of reference in coordination with ESCWA.

#### Measures taken

#### A. ADVISORY SERVICES PROVIDED BY ESCWA TO MEMBER COUNTRIES IN 2009

#### Jordan

Technical assistance was requested to recommend appropriate course of action for implementation by several authorities namely, the Ministry of Water and Irrigation, the Water Authority of Jordan, the Jordan Valley Authority, and the Ministry of Environment. Several missions were undertaken to mainstream and prioritize the many water-related requests:

- (a) A mission to provide the following: (i) advice on the hydrologic monitoring network for the Jordanian side of a shared basin; (ii) follow-up to the 14 requests related to the Water Authority of Jordan and the Jordan Valley Authority; and (iii) follow-up to three requests related to the Ministry of Environment;
- (b) A follow-up meeting included site visits towards the installation of an upgraded monitoring system planned during the first half of 2010, and discussions on the preparations for the requested Geographic Information System (GIS) training course;
- (c) Further meetings were held to discuss preparations for the implementation of requests on the strategic environmental assessment, environmental impact assessment and environmental enforcement.

#### Oman

Upon the request of the Ministry of Regional Municipalities and Water Resources, a mission was accomplished to undertake the following activities:

- (a) To train technical staff in the Ministry on various aspects related to rainfall and runoff analysis and on reviewing and updating relevant studies and manuals;
- (b) To follow up with the Ministry on several topics including: (i) developing strategies for the implementation of pilot demand management approaches in the tourism and agriculture sectors; and (ii) providing appropriate methodology to update the national water balance with particular reference to new developments, such as changes in agricultural use pattern, reduced fresh water use in landscaping, etc;
- (c) To participate in the workshop that was organized with the Ministry of National Economy (6-7 October 2009) on information sharing, exchanging experience and increasing knowledge about the concepts of technical cooperation with international agencies and networking mechanisms;

(d) To participate in the training workshop on "Quality of drinking water resources" (10-14 October 2009), which was organized in cooperation with the Public Authority for Electricity and Water.

#### **Palestine**

Technical assistance was rendered to both the Environmental Quality Authority and the Palestinian Water Authority on the following issues: (a) assessment of water quality; (b) impact of climate change on water resources; (c) effects of climate change on ecosystem; (d) review of organizational structure; and (e) socio-economic aspects of wastewater as a resource.

#### Saudi Arabia

Three missions were carried out upon a request by the Ministry of Economy and Planning to provide feedback and review the study entitled "Assessment and Strategic Management of the Water Sector" and to assist in the preparation of the water and sanitation sector of the Ninth Five-year Development Plan for the Water Sector.

## **United Arab Emirates**

Two missions were undertaken upon request by the Ministry of Environment and Water to review the draft legislation as follows:

- (a) A mission to revise the technical aspect of the draft legislation for the protection and development of water resources;
- (b) A mission to provide technical consultation for the preparation of a general framework for the national water policy aiming at the protection of water resources.
  - B. ADVISORY SERVICES PROVIDED BY ESCWA TO MEMBER COUNTRIES IN 2010

Among the technical services provided by ESCWA on a continuous basis and upon request by member countries, the following are the missions undertaken during 2010:

#### Bahrain

ESCWA provided three fellowship grants to one participant from each of the following countries: Iraq, Palestine and Yemen. Participants are granted the opportunity to attend a diploma course for professionals in the water sector on IWRM Development Programme provided by the Arabian Gulf University in Bahrain. The course aims at building the capacity of participants to improve water resources management and water services in their respective countries.

## Iraq

The Iraqi Ministry of Foreign Affairs requested the development of a training workshop on negotiations on transboundary water cooperation for an estimated 15 water experts working in several governmental institutions.

#### Lebanon

The Ministry of Energy and Water requested assistance from ESCWA in the preparation of a national water sector strategy and roadmap, which involved technical contributions during various stages of the project. The final strategy was presented by the Ministry in December 2010.

#### Oman

Upon the request of the Ministry of Regional Municipalities and Water Resources, a mission was undertaken to organize a training course intended to improve the Government's capacity in addressing challenges of groundwater pollution. A consultant was assigned by ESCWA to conduct the training course on groundwater contamination for 16 water specialists.

#### **Palestine**

A request was submitted by the Palestinian Water Authority for the establishment of an Information Technology system for planning purposes to link different sectors, which required the following assignments:

- (a) Evaluation and design of the system and preparation of relevant documents;
- (b) Evaluation of the GIS;
- (c) Developing a proposal for a protocol on data extraction.

## The Sudan

A request from the Ministry of Irrigation and Water Resources was presented to assist and backstop the progress of the water harvesting group in implementing a study on "Water Harvesting in the Sudan".

## **Syrian Arab Republic**

Upon the request of the Ministry of Irrigation, technical support is being rendered in relation to monitoring surface water resources in the Syrian part of a tributary of the Euphrates river basin.

## **United Arab Emirates**

A request was presented by the Ministry of Environment and Water for assistance in the review and drafting of the federal water law.

## Yemen

Several requests were submitted for assistance in the preparation of a training workshop on "Natural disasters in flooding and landslides" for concerned Yemeni officials in the Ministry of Oil and Minerals.

# Recommendation (h)

Coordinate with the technical secretariat of the Arab Ministerial Water Council in implementing its programmes and offering the technical support required, as resources permit, in the context of ESCWA cooperation with the League of Arab States.

## Measures taken

## A. MEETINGS AND WORKSHOPS

1. ESCWA was invited to serve on the AMWC Technical Scientific Advisory Committee and participated in its first meeting (Algiers, 27-28 June 2009). ESCWA also participated in the first session of the AMWC (Algiers, 29-30 June 2009), which passed a number of resolutions, including one that requests ESCWA to establish a regional mechanism for following up on Target 7.C of the MDGs related to water supply and sanitation. The Council also requested ESCWA to support the League of Arab States Center for Water Studies and Arab Water Security to improve the capacity of member States in managing shared water resources, particularly in the area of negotiations with a view to protecting their water rights.

- 2. ESCWA took part in the second meeting of the Technical Scientific Advisory Committee of the AMWC (Cairo, 24-26 January 2010). As per a Council resolution, ESCWA presented a progress report on the implementation of Target 7.C of the MDGs related to water supply and sanitation in the region and the establishment of a regional mechanism for monitoring and reporting on water supply and sanitation in the Arab region, which is being launched with regional partners.
- 3. ESCWA attended the third meeting of the Technical Scientific Advisory Committee of the Council (27-29 June 2010) and the second session of the AMWC (Cairo, 1-2 July 2010). At the Committee meeting, ESCWA reported on the activities undertaken towards the establishment of a regional mechanism to follow up on the MDGs target 7.C related to water supply and sanitation, which was recognized and reinforced at the subsequent AMWC session. ESCWA discussed the operationalization of the regional mechanism and the MDG+ (MDG plus) initiative at a round table (Cairo, 30 June 2010) with partners, namely ACWUA, the Center for Environment and Development for the Arab Region and Europe (CEDARE), the Arab Water Council (AWC), and the Arab Network for Environment and Development (RAED).
- 4. The second session of the AMWC also passed a resolution which called upon ESCWA to work with the League of Arab States Center of Water Studies and Arab Water Security, in collaboration with ACSAD and SIWI, to prepare a regional legal framework for shared waters within the Arab region. Follow-up on this resolution was conducted with the organization of the "Round-table meeting on the guiding principles of the regional framework on shared water in the Arab region" (Beirut, 12-13 December 2010) by the League of Arab States Center and ESCWA, with financial and technical support provided by the ESCWA-BGR Water Project.

#### B. STUDIES AND TECHNICAL MATERIALS

- 1. Based on the "Regional Assessment Report on the Status and Achievements of ESCWA Member Countries Towards Improved Water Supply and Sanitation", which was prepared by ESCWA in 2008, the AMWC issued a resolution in which it requested ESCWA to establish a regional mechanism for monitoring the implementation of MDGs target 7.C related to water supply and sanitation, that takes into account the specificities of the Arab region. Accordingly, ESCWA is cooperating with ACWUA, CEDARE, AWC, RAED and WHO to launch the MDG+ initiative that will identify and report on water supply and sanitation indicators for monitoring access to and delivery of water and sanitation services and infrastructure in the Arab countries based on regional specificities.
- 2. In support of the AMWC resolution adopted at its first session that calls upon ESCWA to assist member States to improve their capacity in the management of shared water resources with a view to protecting their water rights, ESCWA prepared a "Legal Review of the United Nations General Assembly Resolution on the Law of Transboundary Aquifers", in Arabic which examines the legal principles and institutional frameworks that could protect Arab interests. The Review, as well as another ESCWA contribution, were presented during a meeting convened by the League of Arab States Center of Water Studies and Arab Water Security (Damascus, 21-22 December 2009) to discuss the General Assembly resolution on the law of transboundary aquifers in preparation for international negotiations related to the resolution in 2011.

## Recommendation (i)

Invite upper management in ESCWA to enhance the resources available to the Sustainable Development and Productivity Division (SDPD) water team at ESCWA in terms of increasing human and other needed resources.

## Measures taken

The upper management at ESCWA responded to the requests of the Water Team by adding one professional post of a P-3 level to the team and upgrading a P-3 post to the P-4 level, hence providing an

additional senior officer to the team who is responsible for conducting research and analysis pertaining to integrated water resources and water sector priorities, in addition to follow-up on the implementation of water-related policies and measures at the national level. The Water Team, which was renamed the Water Resources Section (WRS), now comprises the Section Chief at the P-5 level, two professionals at the P-4 level, one professional at the P-3 level, and one officer at the P-2 level, in addition to two research assistants and one administrative assistant. Moreover, short term consultancies were secured by the WRS to support the implementation of regular and extra-budgetary work programme activities.

#### **Recommendation (j)**

Offer regional training programmes on a regular basis, especially on water indicators and indices and means for improving data exchange; and to build the capacity of member countries to evaluate water policies and their impact on the social, economic and environmental sectors within the context of IWRM principles.

#### Measures taken

#### A. MEETINGS AND WORKSHOPS

1. ESCWA held, in coordination with ECLAC, a regional meeting on "Environment Statistics, Indicators and Accounts and Evaluation of the ESIAP Project" (Beirut 7-9 April 2010). The meeting evaluated the activities, outcomes and results of the United Nations Development Account project "Strengthening National Capacities in Environment Statistics, Indicators and Accounts Project (ESIAP)", under implementation by ESCWA and ECLAC since 2007. The meeting was organized to strengthen national capacities of member countries in environment statistics, indicators and accounts taking advantage of an integrated environmental statistical system approach (IESS), thus supporting the progress made toward achieving national and internationally agreed development goals. ESIAP focuses on the implementation of the System of Environmental-Economic Accounting for Water (SEEAW) and the enhancement of statistical capacities.

## B. STUDIES AND TECHNICAL MATERIALS

The following studies and technical materials were prepared by ESCWA:

- 1. An Arabic-English glossary of common terminology used in shared water resources management entitled "Arabic Terminology in the Field of Productivity and Sustainable Development: Glossary of Shared Water Resources, Technical, Socio-Economical and Legal Terminology" (E/ESCWA/SDPD/2009/Glossary.1). Prepared within the framework of the ESCWA-BGR Water Project, the glossary includes technical, socio-economic and legal institutional terms and is intended for specialists, decision makers and negotiators from ESCWA member countries. Adopting a unified terminology is expected to harmonize understanding of the technical, socio-economic, environmental, institutional and legal issues related to the joint management of shared water resources.
- 2. A study entitled "Knowledge Management and Analysis of ESCWA Member Countries Capacities in Managing Shared Water Resources (E/ESCWA/SDPD/2009/7). It presents national, regional and international case studies in shared water resources management so as to draw lessons and recommendations for improving shared water resources management in the region with a view to achieving IWRM. The study reveals the importance of four pillars in ensuring the effectiveness of a shared water resources management regime. It highlights the need to have base agreements on internationally accepted legal principles, to establish well-defined and appropriate institutional arrangements that involve relevant stakeholders, to promote sound policy development based on adequate access to information and knowledge, and to invest in sufficient technical and human capacity for monitoring and managing shared water resources.
- 3. A booklet on the occasion of the World Water Day 2009 entitled "Shared Waters Shared Opportunities: Transboundary Waters in the ESCWA Region" (E/ESCWA/SDPD/2009/Technical

Material.1). It outlines the general principles of international water law, the major international conventions on shared water, and the major transboundary river basins and shared water aquifers in the ESCWA region.

- 4. A booklet entitled "Water Resources Issues in the ESCWA Region: Country Fact Sheets" (E/ESCWA/SDPD/2009/Technical Paper.2). It reviews the water situation in the region, with particular emphasis on the desalination industry as a growing source of freshwater in many ESCWA member countries. It also examines the trends in population growth, freshwater availability, and water use, highlighting the consumption patterns of the most water intensive sectors in each country.
- 5. Briefing fact sheets on the occasion of the World Water Day 2010 commemorated under the theme "Clean Water for a Healthy World" (E/ESCWA/SDPD/2010/Technical Paper.2). They present an assessment of water-related issues in the Arab region in line with the priorities of ESCWA programme of work for the biennium 2010-2011 in the field of water resources. The sheets cover the following issues: water resources, water demand, water quality and health, water supply, water and sanitation, shared water resources management, water and climate change, water and disasters and water and food security in the ESCWA region.

#### Recommendation (k)

Provide members of the Committee on Water Resources with copies of all correspondence between ESCWA and member countries on water resource issues.

#### Measures taken

Correspondence with members of the Committee on Water Resources was performed on a continuous basis and communications were exchanged on several occasions, including during preparations for the first Arab Water Day and information related to AWARENET. Consultations were also conducted with members of the Committee to make arrangements for its ninth session and reach consensus on the date of the session. However, based on the administrative regulations of ESCWA which were set in 2009 and reinforced during the twenty-sixth session of ESCWA (Beirut, 17-20 May 2010), official communications between ESCWA and member countries is addressed to the ESCWA focal points appointed by their respective Governments, such as a delegated official in the Ministry of Planning or the Ministry of Foreign Affairs.

# Recommendation (l)

Finalize conception of a shared water management project, based on the results of the Development Account project ESCWA successfully implemented, and find suitable mechanisms for technical and financial support through United Nations agencies and other regional and international organizations, in accordance with member countries' desire to participate in implementing this project.

#### Measures taken

Based on experience gained from implementing the United Nations Development Account project aimed at strengthening the capacity of water management institutions in implementing sustainable forms of consumption, management and protection of shared ground water resources, interest was formalized to consider the preparation of a regional vision for shared water resources. This has resulted in the adoption by the AMWC of resolution 4 at its second session, which requests the preparation of a legal framework for shared water resources in the Arab region, by the League of Arab States Center of Water Studies and Arab Water Security and ESCWA in partnership with ACSAD and SIWI. The progress achieved related to this regional initiative will be discussed in the fourth meeting of the AMWC Technical Scientific Advisory Committee in February 2011.

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