



Distr.  
LIMITED  
E/ESCWA/SDPD/2016/WG.12/L.1  
20 May 2016  
ORIGINAL: ENGLISH

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

United Nations Development Account Project on Developing the Capacities of the Arab Countries for Climate Change Adaptation by Applying Integrated Water Resources Management Tools

Workshop on Developing the Capacities of the Human Settlements Sector for Climate Change Adaptation Using Integrated Water Resources Management (IWRM) Tools  
Amman, 22-24 May 2016

### AGENDA

#### Day 1: Sunday, 22 May 2016

#### 8:45 – 9:00 **Registration**

*Please bring your passport, visa stamp and airline ticket stub with you to the meeting.*

#### 9:00 – 10:00 **Opening and Introduction**

Moderator: *Mr. Tarek Sadek, First Economic Affairs Officer, Water Resources Section, Sustainable Development Policies Division, United Nations Economic and Social Commission for Western Asia*

- Ms. Roula Majdalani, Director, Sustainable Development Policies Division, United Nations Economic and Social Commission for Western Asia (ESCWA)
- Mr. Khaldon Khashman, Secretary General, Arab Countries Water Utilities Association (ACWUA)

#### **Tour de Table**

- Overview on the UNDA Project and the Training Modules – *Mr. Tarek Sadek, ESCWA*
- Objectives of the Workshop and Review of the Agenda – *Mr. Ziad Al-Ghazawi, Professor, School of Engineering, Department of Civil and Environmental Engineering, Jordan University of Science and Technology, ACWUA Consultant*

Discussion

#### 10:00 – 11:00 **Session 1: Using RICCAR Outputs to inform Climate Change Adaptation related to Human Settlements in the Arab Region**

Moderator: *Mr. Tarek Sadek, ESCWA*

- Overview of the Regional Initiative for the Assessment of the Impact of Climate Change on Water Resources and Socio-Economic Vulnerability in the Arab Region (RICCAR) and the Integrated Assessment Methodology – *Ms. Carol Chouchani Cherfane, Chief, Water Resources Section, Sustainable Development Policies Division, ESCWA*
- Projected Impacts of Changes in Temperature, Precipitation, Wind, Dry Conditions and

Discussion

11:00 – 11:30 Coffee break

11:30 – 12:30 **Session 2: Framing Climate Change Impacts on Water Resources and Human Settlements**

Moderator: *Mr. Tarek Sadek, ESCWA*

- Impacts of Climate Change on Water and Wastewater Utilities, *Mr. Mustafa Nasereddin, Director of Programs and Technical Services, ACWUA*
- Impacts of Climate Change on Human settlements, *Mr. Ziad Al-Ghazawi, ACWUA Consultant*

Discussion

12:30 – 13:00 **Session 3: Resilience of Cities and Human Settlements in the Arab Countries to Extreme Weather Events**

Moderator: *Ms. Carol Chouchani Cherfane, ESCWA*

Presenter: *Ms. Luna Abu-Swaireh, Acting Head, Regional Office for Arab States, United Nations Office for Disaster Risk Reduction (UNISDR) and Mr. Tarek Sadek, ESCWA*

- Hydro-meteorological related Impacts of Weather Related Disasters in Selected Arab Countries
- Enhancing Resilience of Cities and Human Settlements

Discussion

13:00 – 14:00 Lunch Break

14:00 – 15:15 **Session 4: Available Tools and Measures of Integrated Water Resources Management (IWRM) for Human Settlements Adaptation**

Moderator: *Mr. Mustafa Nasereddin, ACWUA*

Presenter: *Mr. Ziad Al-Ghazawi, ACWUA Consultant*

- Linkages between the Impact of Climate Change on Water Resources and Human Settlements

Discussion

15:15 – 15:45 Coffee Break

15:45 – 17:00 **Session 5: Water Reuse and Recycle**

Moderator: *Mr. Mustafa Nasereddin, ACWUA*

Presenter: *Mr. Ziad Al-Ghazawi, ACWUA Consultant*

- Reduce: Water Use Rationalization and Water Tariffs
- Reuse: Wastewater and Grey water Reuse
- Recycle of Marginal Quality Water: Quadranery Treatment and Desalination
- Exercise and Overview

17:00 End of Day 1

**Day 2: Monday, 23 May 2016**

9:00 – 10:00 **Session 6: Enhancing Water Use Efficiency in Human Settlements of the Arab Countries**

Moderator: *Mr. Mustafa Nasereddin, ACWUA*

- Current status of Non-Revenue Water (NRW) in the Arab countries and reduction measures for adaptation - *Mr. Ziad Al-Ghazawi, ACWUA Consultant*
- Cost-effective Treatment of Wastewater in Remote Areas for Potential Reuse to Cope with Climate Change Impacts and Water Scarcity – *Mr. Hussam Hawwa. Agricultural and water Resources Engineer, Difaf for Natural Water System, Lebanon*

Discussion

10:00 – 10:30 **Session 7: Managing Ground Water Aquifer Recharge and Recovery**

Moderator: *Mr. Ziad Al-Ghazawi, ACWUA Consultant*

- Potential Use of Reclaimed Wastewater as Groundwater Recharge in Jordan - *Mr. Moayyad Shawaqfah, Dean of Engineering, Associate Professor of Civil Engineering, Al al-bayt University, Mafraq, Jordan*
- Managing Ground Water Aquifer Recharge and Recovery : Overview and Exercise - *Mr. Ziad Al-Ghazawi, ACWUA Consultant*

Discussion

10:30 – 11:00 Coffee Break

11:00 – 12:00 **Session 8: Identification of Adaptation Measures and IWRM Tools and Options for the Human Settlements Sector**

Moderator: *Mr. Tarek Sadek, ESCWA*

- Stocktaking for Available Adaptation Measure for National and Regional Needs - *Mr. Ziad Al-Ghazawi, ACWUA Consultant*
- Evaluation and Prioritizing the Proposed Adaptation Measures and the Selection Criteria - *Mr. Ziad Al-Ghazawi, ACWUA Consultant*
- How the MDG+ Initiative and water-related SDGs can Inform Climate Change Adaptation in Human Settlements in the Arab Region – *Mr. Ali Karnib, Water Expert*

Discussion

- 12:00 – 13:00 **Session 9: Identification of Adaptation Measures and Options (IWRM tools) for the Human Settlements Sector (continued)**
- Moderator: *Mr. Ziad Al-Ghazawi, ACWUA Consultant*
- The Role of Non-State-Actors and Good Governance in Building Resilience in light of Paris Agreement - *Ms. Ruba Al-Zu'bi, Chief Executive Officer, EDAMA Association, Amman*
  - Overview and Exercise
- 13:00 – 14:00 Lunch Break
- 14:00 – 15:15 **Session 10: Adaptation Measures Implementation Matrix**
- Moderator: *Mr. Mustafa Nasereddin, ACWUA*
- Institutional and Legislative Setup Analysis and Assessment for Implementation of Adaptation Plans - *Mr. Ziad Al-Ghazawi, ACWUA Consultant*
  - Impacts of Climate Change on Sea Level Rise and Water Resources Management in Kuwait – *Mr. Muhammad Al-Ahmad, Deputy Director, Environment Public Authority (EPA) and Mr. Marwan Dimashki, Senior Environmental Consultant, EPA, Kuwait*
  - Climate Change Adaptation through Non Conventional Water Resources Management in Urban Communities in the Mediterranean - *Ms. Konstantina Toli, Senior Programme Officer, Global Water Partnership Mediterranean (GWP-Med), Athens, Greece*
- Discussion
- 15:15 – 15:45 Coffee Break
- 15:45– 17:00 **Session 11: Adaptation Measures Implementation Matrix (continued)**
- Moderator: *Mr. Ziad Al-Ghazawi, ACWUA Consultant*
- Overview and Exercise
- 17:00 End of Day 2

---

**Day 3: Tuesday, 24 May 2016**

---

- 9:00 – 11:00 **Session 12: Flood Risks and Design of Drainage Networks under Extreme Weather Conditions**
- Moderator: *Mr. Ziad Al-Ghazawi, ACWUA Consultant*
- Storm Networks Analysis during Extreme Hydrologic Events and Employing Computer Software in Modeling Networks Performance - *Mr. Ismael Rabi, JELCO Engineering and Consultants, Beit Hanina, Jerusalem*
  - Risk Degrees Associated to the Resultant Impacts of Storm Water Network Flooding on Urban Areas – *Mr. Ali Karnib, Water Expert*
  - Overview and Exercise
- 11:00 – 11:30 Coffee Break

- 11:30 – 13:00 **Session 13: Country Presentations of Case Studies on Adaptation of Human Settlements to Climate Change**  
Moderator: *Mr. Ziad Al-Ghazawi, ACWUA Consultant*
- Iraq the Country under Violence and Urban Expansion the Basic Services to Human Settlement at Glance – *Mr. Ramadhan Hamza Mohammed, Water Strategies and Policies Senior Expert, University of Duhok, Iraq*
  - Climate Change Adaptation Strategy for the Occupied Palestinian Territories – *Mr. Samhan Samhan, Project manager, Palestinian Hydrology Group (PHG), Ramallah, Palestine*
  - The Oases Cities Irrigated by Aflaj in Wilayat Nizwa in Oman: Middle Eastern Human Settlements Practicing a Specific Water Management Under Climate Change and Socio-economic Mutations – *Ms. Fairouz Megdiche, Researcher, Laboratory of Ermology and Combat of Desertification, Institute of Arid Regions, Tunis, Tunisia*
  - *Interventions by Other Countries Representatives and Participants*
- 13:00 – 14:00 Lunch Break
- 14:00 – 15:00 **Session 14: Country Presentations of Case Studies on Adaptation of Human Settlements to Climate Change (continued)**  
Moderator: *Mr. Mustafa Nasereddin, ACWUA*
- *Interventions by Other Countries Representatives and Participants*
- 15:00 – 15:45 **Session 15: Areas for Action: Suggestions for Follow-up**  
Moderator: *Mr. Ziad Al-Ghazawi, ACWUA Consultant*
- Following up on Adaptation Programs Development at the Global Policy Level
  - Following up on Adaptation Programs Development at the National Policy Level
  - Exercise
- 15:45 – 16:00 Coffee Break
- 16:00 – 16:30 **Session 16: Areas for Action: Suggestions for Follow-up (continued)**  
Moderator: *Mr. Tarek Sadek, ESCWA*
- General Discussion and Conclusions
- 16:30 – 16:45 Closing Session
- ACWUA Closing Statement
  - ESCWA Closing Statement
- 16:45 End of Workshop
-