

ESCWA's work on water sector :follow up on the recommendations of the previous meeting

Sung-Eun Kim
Water Resources Section
Sustainable Development and Productivity Division



RECOMMENDATIONS

Recommendations adopted for Water Sector are;

- I. Considering the introduction of technology or promoting the impact of technology on water use efficiency, especially in Agriculture;
- II. Deploying technology in harnessing and refining the existing traditional water harvesting and management knowledge;
- III. Deploying ICT and media technologies in educating, surveying, and consumption of water;
- IV. Developing a database of regional and southern best practices in technological applications in water;

ESCWA ON WATER SECTOR: REC. 1 & 2

- I. Considering the introduction of technology or promoting the impact of technology on water use efficiency, especially in Agriculture;
 - II. Deploying technology in harnessing and refining the existing traditional water harvesting and management knowledge;
1. **Organized an ESCWA regional session during the UN-Water "Water in the Green Economy Conference (Zaragoza, Spain) in October 2011, including delivery of a regional brief, input to success stories matrix, and case studies from the region**
 - **Gulf States, Lebanon:** Hydronics farming has been experimented. It uses 1/20th the amount of freshwater used by a regular farm. (Emirates Hydronics Farms, Qatar National Food Security Programmes)
 - **Lebanon:** Reintroducing Adapted Plants for Water Saving – drip irrigation and fertigation techniques
 - **Palestine (Beit Hanoun):** Farmers developed rooftop farming to feed their families, mostly rain-fed.

ESCWA ON WATER SECTOR: REC. 1 & 2

- I. Considering the introduction of technology or promoting the impact of technology on water use efficiency, especially in Agriculture;
 - II. Deploying technology in harnessing and refining the existing traditional water harvesting and management knowledge;
2. **Contributed a brief and a presentation on water in green industry to the ESCWA-AIDMO Green Industry meeting held in September (Beirut)**
 - **Paper Manufacturer in Saudi Arabia:** Treated municipal wastewater is used to recycle waste paper. (Original open ended system used 7 Million m³ per year to produce 300,000 tons → With closed loop system, water use reduced to 4.2 Million m³)
 - **Dairy producer in Saudi Arabia:** By introducing measures including resuing cooling water, reducing waste in cleaning and repairing leaks, the largest Ultra High Temperature (UHT) milk producer in Saudi Arabia reduced its water usage for a liter of milk from 4.26 liters to 3.33 liters resulting in 160,000 m³ of water savings per year.
 - **Olive oil extraction:** Morocco supported local industry in adopting a new olive oil extraction system reducing water use by 95% and producing no solid waste.

ESCWA ON WATER SECTOR: REC. 1 & 2



- I. Considering the introduction of technology or promoting the impact of technology on water use efficiency, especially in Agriculture;
- II. Deploying technology in harnessing and refining the existing traditional water harvesting and management knowledge;

3. Contributed to a SWIM planning meeting in September (Athens) on how to expand development of non-conventional water resources in the region

Desalination

Treated
Wastewater
Reuse

Agricultural
Drainage
Water

Water
Harvesting

Cloud Seeding

Coastal Springs

ESCWA ON WATER SECTOR: REC. 1 & 2



- I. Considering the introduction of technology or promoting the impact of technology on water use efficiency, especially in Agriculture;
- II. Deploying technology in harnessing and refining the existing traditional water harvesting and management knowledge;

4. Completed a technical report on the water-energy nexus within the context of encouraging more sustainable consumption and production patterns

- Sana'a, Yemen - Water & Energy Linkages affecting water supply delivery
- Energy efficient desalination technologies - Dual purpose desalination plants (UAE), desalination by renewable energy (Saudi Arabia, Bahrain)
- Pumping water using renewable energy (Jordan, Egypt)
- Water-efficient dry or hybrid cooling system for solar energy production

ESCWA ON WATER SECTOR: REC. 3



III. Deploying ICT and media technologies in educating, surveying, and consumption of water;

1. Establishment of a regional knowledge hub for climate and water resource information and modeling in the Arab region (expected outcome of an ongoing SIDA-funded ESCWA project, in cooperation with LAS, ACSAD, SMHI, and WMO)

ESCWA ON WATER SECTOR: REC. 3



III. Deploying ICT and media technologies in educating, surveying, and consumption of water;

2. ESCWA celebrated the World Water Day event at UN-House (22 March 2011)
3. Production of Video CD for Water Production and Consumption in Beirut (BGR)



IV. Developing a database of regional and southern best practices in technological applications in water;

1. Organized an ESCWA regional session during the UN-Water "Water in the Green Economy Conference (Zaragoza, Spain) in October 2011, including delivery of a regional brief, input to success stories matrix, and case studies from Jordan and Yemen
2. Contributed a brief and a presentation on water in green industry to the ESCWA-AIDMO Green Industry meeting held in September (Beirut)
3. Contributed to a SWIM planning meeting in September (Athens) on how to expand development of non-conventional water resources in the region

During the coming year;

1. **WRS does not expect to actively engage in technological applications related to the water sector as identified in these recommendations during the coming year;**
2. **Rather, it will continue to focus on the policy dimension related to Rio+20 preparations.**

Thank you!



Sung-Eun Kim
Water Resources Section
Sustainable Development and Productivity Division
UN-ESCWA
Tel: +961 1 978 522
Fax: +961 1 981 510
Email: kim54@un.org
Web: www.escwa.un.org