

International workshop on safe use of wastewater in agriculture (SUWA)



Growing population, decreasing rainfall, increased extraction of both surface and groundwater resources, increasing water demand for agriculture and industry, and adaption of development-oriented approaches in all aspects of the country have impeded water supply for various sectors including domestic, industrial and agricultural sectors. On the other hand, the contamination of water resources through pollution sources, especially sewage, has limited water use and in this way has restricted water supply and distribution by authorities.

National Water and Wastewater Engineering Company has been using modern methods to introduce wastewater recycling to the industry and has had industrial cultures high on its agenda for several years and so far it has been able to provide drinking water for several cities in the Central Plateau by applying wastewater in these areas for the use of other consumers, whether industrial or agricultural, and has added high quality water to the water cycle. In this respect the international conference and workshop of "safe use of wastewater," was held at Shahid Beheshti University Convention center from December 5th to 7th with the participation of the executive committee of Imam Khomeini's decree, the United Nations University Institute of Environmental Management (UNU), National Water and Wastewater Engineering Company, and Shahid Beheshti University (SBU).

At the invitation of the International Conference, the United Nations University Institute of Environmental Management (UNU), ten international experts from countries such as Germany, the Netherlands, India, Jordan, and Iran provided the latest international scientific and administrative achievements and experiences in the field of safe use of wastewater. In the first two days presentations were delivered and the third day a visit was paid to the south Tehran Treatment Plant.

At the conference, professors, managers and experts from the water and wastewater engineering firms across the country, the Ministry of Energy, Ministry of Agriculture, Ministry of Environment, Municipality of Tehran and universities participated in training. At the opening ceremony of this conference Mr. Mhmoudi the deputy minister of energy, Mr. Janbaz the managing director of NWWEC, Mr. Tehranchi the chancellor of SBU, head of Tadbir Economic Development Group, and Mr. Ardakanian the head of UNU-FLORES, made welcome speeches.

On the first day, the capacity development perspectives of SUWA (safe use of wastewater in agriculture) and the concept of Nexus approach to environmental resources management were illustrated by Dr. Ardakanian and Prof. Hettiarachchi followed by a review of economic, social, and cultural dimensions of wastewater reuse and a reference to perceived risks of irrigating with wastewater. Technological basics of water reuse, implementation issues and need for policy integration, health aspects, and two case studies from Germany and Tunisia were also among the topics which were addressed in this session.

On the second day, there was a panel discussion and wrap-up in addition to some other lectures presented by UN university professors. Dr. Hettiarachchi was the moderator of the panel and all presenters answered the questions raised by audience. Again two case studies related to Jordan and Tunisia were presented.

On the third day, it took visitors about five hours to visit the south Tehran Treatment Plant. This plant is located in south west of Ray, the oldest existing city in the Tehran province. The Austrian company, Va Tech wabag, has designed it. This plant has occupied about 31 hectares of land and has the potential to treat wastewater produced by around 2 million inhabitants of Tehran.

At the end of the workshop certificates were awarded to participants by Shahid Beheshti University and the Institute of Management environment of United Nations University (UNU).

What is SUWA?

In many regions of the world, particularly in water-scarce urban and peri-urban areas and where competition for water is high, wastewater is being used for agricultural purposes. While some countries implement agricultural wastewater use practices and guidelines that follow national regulations or international guidelines and safety standards, in many other countries, especially in the developing world, use of wastewater is an unregulated but common practice. The lack of implementation of guidelines and safety standards can lead to an otherwise avoidable aggravation of health risks that could result in significant secondary impacts.

Although the international community recognizes that the safe use of wastewater in agriculture is an important water resources issue that needs to be addressed, efforts are still needed to advance it in national policies and to implement safe use guidelines and practices.

The "Safe Use of Wastewater in Agriculture" project is a joint activity carried out under UNWater and coordinated by the UN-Water Decade Program on Capacity Development (UNW-DPC). It is a joint effort of the following UN-Water members and partners: the Food and Agriculture Organization of the United Nations (FAO), the World Health Organization (WHO), the United Nations Environment Program (UNEP), the United Nations University Institute for Water, Environment and Health (UNU-INWEH), the UN-Water Decade Program on Capacity Development (UNW-DPC), the International Water Management Institute (IWMI) and the International Commission on Irrigation and Drainage (ICID). Many of these project partners also took on the responsibility of organizing one or more of the workshops in the project series.