

After the adoption of the United Nations Environment Programme (UNEP), the proposed onsite wastewater treatment approach, an ARIJ team was invited to participate and be part of the UNEP team solutions providers in the First Arab Regional South-South Development EXPO; to disseminate and promote transfer the wastewater treatment system approach to the neighbouring countries.

For the participation in the First Arab Regional South-South Development EXPO, the following lines were used:

First Arab Regional South-South Development EXPO, 18-20 February 2014

One fifth of the world's population, or 1.2 billion people, live in areas of water scarcity, and this is projected to increase to 3 billion by 2025, as water stress and populations increase (UNEP & UN Habitat, 2010). There is no option but to consider wastewater as part of the solution. To be successful and sustainable, wastewater management must be an integral part of rural and urban development planning, across all sectors. However, the on-site small scale wastewater treatment plants based on the activated sludge blanket filtration system, which often serve a single house or building, are the most feasible solution for solving the water scarcity and wastewater management issues especially in rural and vulnerable localities. They can solve the wastewater collection and disposal problems in such communities and contribute in improving the management of the limited water resources, by economizing in a big portion of the domestic drinking water used for irrigation. Along with the benefit of protecting the water resources from pollution due to the disposal of untreated wastewater as well as reducing environmental and health problems and risks.

As this technology has been manufactured in Palestine and the neighboring countries are suffering from the same conditions and climate as water scarcity and do lack public sewage network, thus this technology could be transferred and replicated to others neighboring countries. The opportunities could be seen in such technology for south-south transfer of the solution through its environmental and socio-economical aspects such as 1) solving the big portion of the problem resulting from the disposed volumes of untreated domestic wastewater and to minimize the wastewater problem and related handling costs; 2) contributing in the household economy and sustainability by generating a new water resource that can be treated and reused, in addition to economizing the monthly expenses that benefited families used to have as concept of hiring wastewater vacuuming services, and leading to an increasing in the agricultural areas contributing in the family food security as result of the non-conventional water resource that can be obtained.

The mechanisms of transferring the proposed environmentally sounds wastewater treatment plant will be done through transferring the technology whereby it will be manufactured locally based on the country needs and it will be built with a local material. The applied the up-to-date friendly use and environmentally sounds technologies where the common people can utilize it without any complications and/or risky precautions. This technology is sustained and functioned with feasible operational and maintenance costs. This approach will eventually contribute towards achieving **MDG7 "Ensure Environmental Sustainability"**.



Figure 1: Engineer Elias Abumohor from the Applied Research Institute-Jerusalem (ARIJ) , receiving an award after his intervention ,in the First Arab Regional South-South Development EXPO- Doha Qatar, February 2014