

# AAINews

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## Conservation and Efficient Use of Water Resources

The world today is facing a water crisis. Half of the global population does not have access to safe water, while problems of water shortage and increasing flood-related disasters are getting more and more serious. To this background, the Third World

first water forum of this century in Asia, was held in Japan. A large number of people involved in/working on all sorts of water-related issues got together to share their knowledge and experience beyond and across their specialized fields. As already reported in AAI News Vol.35, AAI started providing technical assistance for promotion of water saving irrigation farming in Syria, which is facing a critical problem of water resources depletion. The work has been continued since then with experts sent to Syria from AAI.

The province of Baluchistan, in the northwestern part of Pakistan, depends largely on groundwater for water supply for farming and daily use, and traditional karezes and wells are still now widely in use. Thanks to such water sources, fruit cultivation, mainly of apples, developed in the area around the Quetta Basin. However, lately the groundwater level has been lowering every year, and the depletion of groundwater resources has started adversely affecting agricultural production. Therefore today it has become crucial to introduce water saving irrigation technology to sustainably manage water resources and to secure water for farming. In this context recently AAI participated in development activities in Baluchistan with the main objectives of introducing water saving methods employed in other arid areas, studying the current situation of water saving farming technology in Baluchistan, and planning some technical cooperation programmes for the future.

Through information exchange with relevant agencies/organizations as well as the field trip, the following facts became clear. For one thing, although delay action dams have been constructed one after another for the purpose of water resources conservation, due to poor watershed management in the catchment areas and insufficient systems for monitoring groundwater levels, the actual contribution of such dams is unclear. In terms of water use efficiency, the modern irrigation systems such as drip irrigation have not been introduced widely, because of the fixed-rate system of electricity costs, lack of proper irrigation equipment, and so forth. It has also become clear that training for engineers, extension activities for farmers, as well as linkage of research and training/extension are necessary. Moreover, it was learned that, in order to realize such activities efficiently, it is critical to strengthen/empower and systematize the relevant organizations and the collaboration among them, as well as to introduce and ensure the participatory approach through working with local grassroots/citizens' groups.

The list of problems and tasks identified in Baluchistan has a lot in common with that in Syria, where we are currently working on water saving agriculture. For instance, in Syria it was found necessary to improve monitoring of water resources and data analysis, and for this technical cooperation is already being provided. Also the domestic manufacturing of irrigation equipment including drip-lines is encouraged for the purpose of a cheaper and more affordable supply of such equipment. Moreover, the current technical cooperation programme is focusing on creating demonstration plots for training farmers and agricultural extension workers, as well as on research based on specific problems faced on the ground. Needless to say different countries have different conditions and requirements. However, it should also be true that more effective technical cooperation can be realized by transferring some of the experience gained in one country to another, to work towards the common objective of water conservation. (By Hiroyasu Ohnuma in Baluchistan, Pakistan, May 2003)



Apple orchard outside Quetta City



Construction of a delay action dam



Drip irrigation system at a pilot farm