

**USE OF GROUNDWATER FOR AGRICULTURAL PRODUCTION IN DEH DESVI
OF THANO
BOOLA KHAN, JAMSHORO, SINDH**

A. G. Soomro, A. H. Memon and M. A. Gadehi

Pakistan Agricultural Research Council, WRRRI Field Station,
Ex-SAZDA Bungalow No.1, Thano Boola Khan

ABSTRACT

A survey was carried out to assess the crop production, available water resources, water use efficiency and economic analysis of cultivation of various crops in deh Desvi of Thano Boola Khan, district Jamshoro during year 2006. It was noted that the major crops being cultivated in the area are onion, wheat, vegetables and fodder. The onion is the most popular cash crop which is being marketed to Karachi and other parts of the country. Fodder is only being used for feeding livestock, which is the second livelihood option for farmers of the area. The net income from different crops in deh Desvi was about Rs.27.151 million by using furrow/flood irrigation method. However, on adoption of drip/trickle and sprinkler irrigation systems, the irrigation application efficiency can remarkably be increased and the income from different crops could go up to Rs.94.955 million, which will obviously increase the interest of communities in these irrigations systems and consequently the system can be more sustainable. Major portion of land is cultivated by deep wells (56.40 %), followed by dug wells (42.44 %) and Persian wheel (1.16 %). Irrigation water is being used by traditional methods as basin and furrow irrigation, which gives less irrigation efficiency about 68% and estimated water losses are up to 32%. To overcome these losses, the drip/trickle irrigation system is suggested for fruit trees, onion and other vegetables and sprinkler system is suggested for other crops which will alternately bring 90% efficiency and improve crop yield significantly. It is suggested that the rainwater harvesting techniques should be adopted which includes reservoir and groundwater recharge.

Keywords: water, resources, use, losses.