

Water and Agricultural Related Challenges for Sustainable Development

ABSTRACT

Availability of water resources is a major challenge facing Egypt. Facing food security required mega irrigation and agricultural projects to recover shortage. Mega projects were established to enlarge the cultivated area within the government economic agenda. Strategies including improving the performance of irrigation and drainage systems from integration point of view. The variability could be managed and the efficiency of irrigation water use increased within improving irrigation system as well as reusing drainage water. Those management tools should help in the sustainable planning of the future economy. A positive/negative impact was observed through variable application of irrigation water to meet the individual needs of crop water requirements (within free crop pattern system). Historically, water conservation techniques through irrigation improvement projects (IIPs) were also implemented in order to mitigate the shortage of water resources.

Keywords: Water shortage, food security, Irrigation efficiency, irrigation and drainage