

Watershed Management Technologies in Mitigating Water Crisis and Sustaining Agricultural Productivity

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Abstract

Watershed development and management programme appeared to an effective and integrated approach to manage all natural resources like land, water, vegetation, animal and human for sustainable benefit and maintaining balanced eco-system. The main principle of the programme is based on starting from its planning, making design outlay, formulation of technical works, execution and development of land along with creation of water resources developing a hydrological unit at downstream making a common drainage points for the purpose of sustainable development of agriculture. The present case study dealt with the integrated water resources management with specific guidelines to the farmers for clear understanding of installing small-scale irrigation system based on their own resources in accordance with actual land situations as well as judicious use of irrigation with adoption of water-saving technology for sustainable crop production through watershed approach. The work was carried out under National Watershed Development Project for Rainfed Area (NWDPPA), one out of 21 watersheds was identified for development of rainfed agriculture with mobilization of all natural resources like soil-plant-water-animal-human to uplift socio-economic status of the farmers. The effect of watershed management programme was studied to assess the crop water productivity adopting of integrated water management practices with introduction of six rainy season crops viz: drilled and transplanted rice, arhar, groundnut, sesame and maize and two winter season crops viz: mustard and