IMPACT OF WATERSHED DEVELOPMENT PROGRAMME ON CROP PRODUCTIVITY-A REVIEW

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ABSTRACT

Watershed development programme has proved advantageous in rainfed areas for improving agricultural productivity. With the improvement of land as a result of soil and water conservation treatments and subsequent improvement in the moisture storage in soil profile, the productivity of land increased. Therefore, this paper reviews some of the important results of various studies conducted at different locations with reference to rainfed areas to assess the impact of watershed development programmes on crop yield.

Natural resources such as soil, water and vegetation are most vital resources for the development of agricultural economy. In India, 72 per cent of the arable lands are rainfed, which produces about 42 per cent of the total national agricultural production (Singh, 1990). It is estimated that the productivity of rainfed area is 0.31 times that of irrigated area (Ram Babu 1987). Every year, millions of hectares of cropland is lost because of the land is so severely eroded by wind or water. The extensive deforestation resulted in more water run off in floods and less percolates to recharge groundwater sources. Efforts are being made to bring more area under irrigated agriculture and manage rainfed agriculture through better soil and water conservation to increase cropped area and per hectare yield. The development of rainfed farming on watershed basis aims at development of the area in an integrated manner for increasing overall productivity.

Various watershed development projects like world bank assisted Integrated Watershed Development Project, centrally sponsored scheme of National Watershed Development Programme for Rainfed area, People's Action of Watershed Development Initiatives project in collaboration with Swiss Development Co-operation, are being implemented in country by adopting farming system approach on watershed management principles in order to conserve valuable rainwater and top-soil. Similar activities are also taken up under Desert Development Programme, Drought Prone Area Programme, Waste Land Development Programme and Employment Assurance Scheme. Animal husbandry, horticulture, Agro-forestry are some diverse activities added to the conventional soil and water conservation measures in which the new emphasis given to vegetative conservation measure as against mere engineering structures. One of the important objectives of watershed development projects is to introduce improved agro-techniques for maximizing agricultural productivity of rainfed areas. These techniques include soil and water conservation measures, use of improved seeds, fertilizers and plant protection measures. With the improvement of land, as a result of soil and water conservation treatments and subsequently notable increase in irrigation potential, farmers are in a much better position to harvest higher yield by adopting improved agro-techniques. In this context, this write up reviews the work done by various researchers to assess the impact of watershed development projects on crop productivity. Many studies have been conducted so far to assess the impact of watershed development projects on crop productivity, but few of the relevant results are summarized below.

Research investigation by Singh et al., (1995) in Peepal was watershed of Udaipur distt., Rajasthan, revealed that as a result of soil and water conservation measures, availability of irrigation water from anicuts and wells...
CONCLUSION

The findings of different studies have clearly suggested that with the introduction of improved agro-techniques including, soil and water conservation measures, use of improved seeds, fertilizers and plant protection measures etc., crop productivity of beneficiary’s land had increased to some extent. This clearly exhibits significant and positive impact of watershed treatment on crop yield.

REFERENCES