

Impact of National Watershed Development Program on Production System in Western Rajasthan

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Abstract: The present study was conducted in arid areas of Jaisalmer district of Rajasthan, where National Watershed Development Program (NWDP) for rainfed areas was launched. Total 150 beneficiaries were randomly selected from 30 watersheds. The respondents were personally interviewed with the help of pretested interview schedule. Study revealed that the drastic change was noted in agricultural production. Regarding change in area of crop it was found that before implementation of the project clusterbean (37.37%) was the principal crops followed by pearl millet (35.75%), sesame (8.73%) and mustard (6.38%), whereas after implementation of the project, clusterbean (32.29%) was main crop followed by pearl millet (28.72%), mung bean (11.34%), and mustard (6.03%). Total cropped area was increased by 30.09%. Regarding the yield, maximum yield was increased in case of wheat (94.56%) followed by sorghum (81.62%) and groundnut (43.84%).

Key words: Watershed, cropping pattern, kharif and rabi crops.

National Watershed Development Program (NWDP) for rainfed areas was launched by the department of watershed development and soil conservation in the year 1990-91. The objective of the project was restoration of ecological balance in rainfed areas and sustainable biomass production. Project has an important role in the present context because water management along with judicious use of water for raising crop is going to be instrument in sustainable agriculture production in our country and more, especially in Rajasthan. The problem of soil erosion is very severe in the state as most of the part of the state is rainfed and dry. NWDP was completed in 1996-97. Keeping this in view a study was conducted to assess critically the impact of NWDP on the implementing functionaries and policy makers. The study was under taken with specific objectives to assess impact of NWDP in terms of cropping pattern and yield levels.

Materials and Methods

Impact assessment study of micro watershed project was carried out in Jaisalmer district of western Rajasthan. Twenty watersheds executed by forest department and 10 watersheds executed by Zila Parisad were selected randomly from 128 and 61 executed micro-watersheds, respectively. Thus, 30 watersheds were covered under the study (Table 1 and 2). From each micro-watershed one village and

from each village 5 beneficiaries were selected randomly. Thus total 150 samples beneficiaries' households were covered representing the various caste/community and land holding sizes.

Data were collected from head of the households through a specially designed interview schedule, focused group discussion, in depth interview, etc. during 2012-13. Beside primary data collection, block level and district level officials involved in the project were also contacted for detailed information in connection with the implementation of the program. The selected watersheds are described here.

Results and Discussion

Changes in area under major crops

Data presented in Table 3 reveals the cultivated area under different crops in kharif and rabi season during watershed project. Before initiation of the project, in kharif clusterbean, pearl millet, mung bean, sesame and sorghum occupied major acreage, while after implementation of the project clusterbean, pearl millet, mung bean, sesame, moth bean and sorghum contributed major total cropped areas.

Moth bean and castor were not grown in the study area at the time of project implementation. They were introduced as a new crops in the area and were cultivated in 50.80 and 3.20 ha areas respectively. Similarly, mung bean,

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