GRAMA SEVA SANGAM

WATERSHED PROJECT IMPACT STUDY REPORT 2023

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The climate change is one of the foremost challenges of our time. Climate change is affecting farming by interfering with the efficiency of crop production. The climate is the most important determinant of crop productivity, particularly in country like India, where about 2/3rd of the cultivated area is rain fed.

In India, climate change is perceptible through a rise in all India mean temperature and increased frequency of extreme rainfall events in the last three decades. This causes fluctuation in production of major crops in different years.

Based on the vulnerability assessment of India Agriculture to climate change analysis by Indian Council of Agricultural Research (ICAR), 109 District out of 573 Rural Districts (19% of Total Districts) are 'Very – High risk' Districts, while 201 Districts are in risk zone category. For sustainable farming, conservation of resources and mitigation strategies is the need of the hour. For achieving this twin goals, Watershed management Approach, is a strategy for climate adaptation and mitigation.

A watershed is a geographical area that drains to a common point, which makes it an attractive unit for technical efforts to conserve soil and maximize the utilization of surface water and subsurface water for crop production.

In this context the present study documents the impact of watershed management activities by GRAM SEVA SANGAM, Kilikkudi in Pudukkottai District of Tamil Nadu. The study was conducted in four locations namely Amburpatti, Avvayarpatti, Alangudi, Kilikkudi and Mampatti Villages of Pudukkottai District of Tamil Nadu State.

The sample size was 120 Farmers @ 30 Watershed users from each of the watershed areas. The Watershed activities viz, soil and moisture conservation measures in agricultural lands (contour / field bonding and summer ploughing), drainage line treatment measures (loose boulder check dam, minor check dam, major check dam and

retaining walls), water resources development management (percolation pond, farm pond and drip and sprinkler irrigation), crop demonstration, horticulture plantation and afforestation as well community development activities were documented.

All the responses were documented by in depth interview and group discussions among the community. The majority of the respondents (65%) felt that employment was generated by the watershed creation. The users also witnessed increase in ground water level and decrease in soil erosion adjoining the water bodies. The vast majority of the users (71%) had favourable attitude towards watershed activities. The majority of the respondents (74%) perceived that there was decrease in crop failures whereas there was increase in crop yield and family income. The lack of credit linkage mechanism, lack of convergence among the rural development institutions and lack of feedback mechanism were the constraints felt by the users of watershed in the Pudukkottai District.

Thus the impact assessment studies conducted by the team of experts from Centre for Research in Environment and Agriculture (CREA), Trichy across the four watersheds over a period of time implies that watershed development activities by Gram Seva Sangam have generated significant positive impacts in the line of Bio Physical, Environmental and Socio-Economical domains.