

Chhattisgarh

success stories

Karanpur Mili-watershed

District – Bastar, Block Jagdalpur

Location of watershed area

Longitude : 82°03` to 82°13`E

Latitude : 19°05' to 19°09'N

Altitude : 595 MSL

Area : 3925 ha.

Area to be treated: 2000 ha.

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Problem abstracts

- Degraded hillocks in Bastar have shallow to deep profile, light texture, gravelly, poor water retention capacity, low nutrient and organic matter and high erodibility.
- Characterized by low crop productivity (in Bastar rice 11.43q/ha, Ragi 385q/ha, small millet 2.75q/ha, maize 17q/ha pulse 5.7kg/ha and oil seed 2.7q/ha).

Problem abstracts

- To control the problems of erosion, erratic rainfall, undulating topography and edaphic factors.
- Participatory Watershed management -an important tool in enhancing the Socio-economic status of small and marginal farmers.
- Difficult to transfer advanced agricultural technologies to the farmer's field without participatory management.

Details of Micro watersheds

Micro Watershed	Total Area	Treated Area	Block	No of villages
Turenar	1000 ha	500 ha	Jagdalpur	4
Karanpur	1125 ha.	500 ha	Jagdalpur	3
Upenpal	1000 ha.	500 ha.	Jagdalpur	3
Chittalur	800 ha.	500 ha.	Jagdalpur	2

Treatment

- Of 3925 ha 2000 ha treated under watershed programme.
- 13 villages benefited through watershed treatment.
- Works taken up under soil conservation (30%) water harvesting/ conservation (40%), plantation (10%), fodder development (10%) and other activities such as fisheries development, mushroom cultivation, NADEP, wormi compost, poultry(10%).

Treatment

- Integrated and holistic treatment of watershed from ridge to valley taken up.
- Check unpredictable production systems where rain-fed farming is substantially hampered and extreme cases may lead to mass crop failure. Percolation tanks at hill top.
- Percolation dabrries within the plots.
- CPT constructed.

Objectives

- To evaluate the comparative effect of various soil and water conservation structures viz. Continuous contour trench, Scattered contour trench and plantation on natural resources and rehabilitation of Hillock.
- To assess the impact of soil and water conservation measurements on biomass and organic matter accumulation.
- Effect of trenches on run-off control and soil erosion.

Conclusion

- The study reveals that plant growth is significantly affected by construction of trench.
- During yr. 04-05, 57,386 cum of water harvested.
- Soil erosion checked by construction of all the above structures.
- 3884 cum of earth was retained captured.

Conclusion

- Organic carbon in the structures was increased by trapping of leaf litter and other sources from 0.41 to 0.61%. Water harvesting structures like Percolation Tank, Burrow-pits, CPT conserve soil and water and help growth of plants on degraded Hillocks.
- SCT gave better results than the CCT with survival of 72.5% in cashew as compared to 51.52%.

Result

- The results indicate that the SHG obtained highest income of Rs 5,625/- and lowest Rs. 3250/-.
- Mushroom production activity is a good source of income as well as provides employment for rural women.
- Problem of mal-nutrition can also be overcome.

Achievements

- 1200 SHGs formed
- 4000 Women's Saving Groups formed.
- Agriculture productivity up by 12%.
- Additional area under cultivation – 85 ha.
- Increase in fodder availability- 45 ha.
- Water level increase in wells 0.83 m.
- Irrigated area increased by 40 ha.
- Reduction in labour migration 21%.

Conclusion

- The demonstrated technology has increased the average yield by almost 80.0 % over local practices.
- The dissemination of technology increased productivity of ragi.
- The farmers are also convinced and have accepted the technology.



मिट्टी का 40 फीट ऊँचा बांध



तालाब में नहाता ग्रामीण

Demonstration of Ragi fields





Paddle operated low lift pump



Our Journey Continues....

Thank you