SAFE-World Project/Initiative Summary

Country: India

Project / Initiative Title: Rajasthan Watershed Development Programme

Scale: Regional Nos. farmers: 300,000 Hectares: 240,000

Agro-Ecological Zone: II

Improvement types

1x	2	3x	4	5x	6	7	8	9

A. Key Impacts

A1 – Productivity

	Before / Without	After / With	% change
Sorghum / millet	200-400 kg / ha	400-875 kg / ha	100
Grass strips		450-925 kg / ha	New crop

A2 – Impacts on natural capital
Improved crop and grass productivity

A3 – Impacts on local community (social capital)
15,000 Watershed Users Groups formed

B. Types of Sustainable Agriculture Improvements

Type 1: Better use of available renewable natural capital
Type 2: Intensification of single sub-component of farm system
Type 3: Diversify by adding new productive natural capital and regenerative components
Type 4: Better use of non-renewable inputs and technologies
Type 5: Social and participatory processes leading to group action for making better use of natural capital
Type 6: Human capital building through training-learning programmes
Type 7: Access to Finance
Type 8: Add value by processing to reduce losses and increase returns
Type 9: Add value by direct or organised marketing of produce to consumers

	Yes / No	Narrative
Type 1	x	
Type 2		
Type 3	x	
Type 4		
Type 5	x	
Type 6		
Type 7		
Type 8		
Type 9		

D. Contact Point for Project/Initiative

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E. Project Narrative

Government of Rajasthan Watershed Development Programme

The Watershed Development and Soil Conservation Department of the Government of Rajasthan was set up in 1991 to implement a participatory approach for integrated watershed development. Rajasthan is the most rainfall dependent state in India. Since the 1940s, groundwater levels have fallen dramatically, forest lands have been overused, and community institutions undermined. Since 1957, the GoR had spent Rs 705 million on implementing soil conservation works on 586,000 ha. However, these measures were scattered, uncoordinated, and executed entirely by government with people only participating as wage labourers. The impacts were poor: *"field observations confirm... near zero maintenance by the beneficiaries"* (Krishna, 1993). The challenge is huge: some 25 million ha of Rajasthan need a watershed-development type of treatment. With the high cost of past approaches, combined with the poor maintenance, the GoR has come to appreciate that people's initiatives are essential for success.

Each selected watershed of some 1500 to 2000 ha is treated for a period of 5-7 years, so that government can observe the impacts and change its approach as necessary. The process involves working with local users' committees that are elected by communities. The number in each watershed depends on local wishes - there may be one per microwatershed of 200-300 ha, or one for the entire watershed. The GoR has not imposed any standardisation of constitutional matters for these users' committees. The technologies are low-cost and based on indigenous and biological technologies. These include strips of vetiver and other grasses on the contour; contour bunds and contour cropping; field bunds; drainage line treatment; and regeneration of common lands with shrubs and trees. These technologies are developed through a process of participatory planning at village level. Local people and government officials are jointly involved in analysis, technology selection and adaptation, and development of the treatment plan.

Field and contour bunds have more than doubled sorghum and millet yields to 400-875 kg/ha (with no addition of fertilizer); and grass strips have improved yields by 50-200% to 450-925 kg/ha. This means that an investment of Rs 800-1000 /ha can be paid back in less than two years. Grass production using conservation measures, including agave and vetiver in v-shaped ditches, or v-ditches alone, is improved by 10-20 fold from the very low 25-35 kg dry matter/ha. Some 120,000 ha were treated under watershed development work in both 1992-3 and 1993-4, and the users' committees have fostered a sense of ownership amongst local people.

The process of joint watershed development also involves close work between GoR and NGOs; the training of 4-5 people from each village in techniques of watershed development; and effective internal monitoring to ensure that HQ staff understand the diverse needs of local people. There are concerns over the distortions created by subsidies. However, *"the operating principle is that if farmers execute the work and also pay a part of the cost, they will do so because they have positive expectations from the treatments, and not as a way to get labour income from the government... Eventually, the projects will have to be unsubsidised. However, this is bound to take time as the experience of cost-sharing in governments is a new one".*

Source: Krishna, 1994; Krishna et al, 1999

Data for this project is in hard copy format and is not currently available electronically. If you would like further information please contact Rachel Hine