

Learnings:

- Trust in the NGO staff is fundamental and improper expectations should be rectified at the beginning of the program itself.
- The quality and subsequent visible success of the watershed work are very essential — “Seeing is believing”.
- The culture of the people as well as their traditions should not be taken for granted and should be handled sensitively. The disciplines of the program demand big changes in the established traditions of village life and calls for much patience on the part of the NGO.
- Direct exchange between the people of the watershed and those from other places helps create awareness, brings about a change in attitude and a sense of unity.
- The facilitating agency should be clear about the non-compromisable and try to achieve these through participatory methods.



Watershed Training Centre:

WOTR has set up a Watershed Training Centre in Darewadi as this village offers an ideal location for conducting trainings, giving the trainees first hand experience of the field and its people, thus fostering understanding and learning of the various aspects of watershed development.

WOTR conducts trainings for various levels of staff (policy and decision-makers, middle management as well as implementing staff) of government organisations, donors and NGOs as well as for village communities.



Mrs. Zumberbai M. Borade, Landless:

Our village has benefited in many ways because of this project. We conserved the soil and stopped the water from draining out. The water level has increased and the farm output and rate of farming have also increased. People do not have to go outside looking for work now and do not have to starve. The poor have benefited a lot because of the project.

Mr. Sampat N. Pawar, 8 acres, rainfed:

I am staying near the ridge and there is a lot of forest plantation here which was done earlier by the Forest Dept. Earlier people used to graze their cattle there and so the cattle ate up whatever they found there as well as in our fields. Now because of Charaibandi things have improved. We can be sure that the trees we plant will not be eaten by the cattle.



Visit of the Chief Minister of Maharashtra to Darewadi:

On 31st May 2002 the Chief Minister of Maharashtra, Mr. Vilasrao Deshmukh, visited the Darewadi watershed and Training Centre. He was accompanied by Mr. Balasaheb Thorat, Minister of State for Irrigation; ex-MLA Mr. Ramdas Phutane; Mr. N.B. Patil, Secretary, Rural Development and Water Conservation; Mr. Mathankar, Divisional Commissioner, Nashik Division; Mr. Vimalendra Sharan, Collector of Ahmednagar; Mr. Dalvi, CEO, ZP, Ahmednagar; Mr. Satyanarayana, Chief General Manager, NABARD RO Pune and several other dignitaries and senior government officials.

They observed the watershed development work undertaken in the village, visited offices of the Village Watershed Committee and the Samyukt Mahila Samiti, attended the village Gram Sabha and also held discussions with several villagers of Darewadi. They were highly impressed by the quality of the work and the level of people's participation and the CM lauded both WOTR as well as the village community for the excellent work done.

They then visited WOTR's Watershed Training Centre and got an overview of WOTR's activities through the different poster presentations and a computer Powerpoint presentation.

Darewadi, which was once a remote and isolated village, is now a web of activity. Visitors come from far off places to understand and share their success story and many of them go back with the resolve to replicate this effort in their own areas. The villagers themselves explain to the visitors and some of the VWC and women's group members even work as resource persons for creating awareness in other villages. Due to the 'demonstration effect' of Darewadi, many villages in the vicinity have also taken up natural resource management along watershed lines.

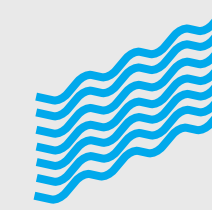
WOTR is a support/resource organisation working with 77 NGOs in the field watershed development and related areas. The experiences mentioned in *Watershed Voices* are those of WOTR and its partners implementing watershed development programs in the state of Maharashtra, India. This publication is financially supported by the German Agency for Technical Cooperation (GTZ).

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Watershed Voices... Experiences from the grassroots



Darewadi Watershed Project



Darewadi 1996

In 1996, Darewadi, a remote, drought prone village in the rain shadow region of Maharashtra, India, was a picture of despair; depleted of natural resources necessary for rural livelihood. Even drinking water was not assured. Villagers had to migrate to resource-endowed areas working seasonally at sugarcane cutting or in brick kilns of contractors. Some herded sheep, which further depleted the already fragile ecosystem. Agricultural production — even in a year of reasonably good rain — was sufficient for only 3-4 months; labour opportunities were scarce. Women had to work hard to fetch water and fuel from long distances and for their other basic needs.



The change in the landscape – 1996-2000

Some information of Darewadi watershed:

Total area of the watershed	1535.24 Ha.
Public Land:	
Forest Land	306.53 Ha.
Revenue Land	147.59 Ha.
Community Land	17.69 Ha.
Private Land:	1063.43 Ha.
Number of Households	131

The Watershed Development process:

At this point, some of the villagers who had heard about the work of Watershed Organisation Trust (WOTR) under the Indo-German Watershed Development Programme (IGWDP), approached WOTR to undertake watershed development activities in their own village. Darewadi was on the verge of desertification and Fr. Hermann Bacher, founder of WOTR, strongly felt that if this place can be rejuvenated through watershed activities, it would be possible anywhere and would be a learning for the facilitating organisation also. The challenge was to win the confidence of the people and make them aware of the inter-relationship between the environment and the health





Plantation on CCTs

and quality of human life — social, economical and cultural. Awareness generation was achieved through constant interaction, audio-visual aids, exposure visits to areas where people have



Women's group meeting

Local institutions

The Village Watershed Committee (VWC) which is the official project holder having representation from all primary stakeholders has planned, implemented and monitored all the activities and evolved systems and procedures for management and conflict resolution. The Darewadi VWC is a registered body, having 24 members (including 7 women members) nominated by the Village Assembly (Gram Sabha). It has also worked as an NGO facilitating implementation of 2 micro-watersheds in the neighbouring villages.

There are 11 women's Self Help Groups (SHGs) in Darewadi and these groups have an Apex Body, the Samyukta Mahila Samitee (SMS). The women are co-partners and active contributors in the management of their watershed and the integrated development of their village. They have undertaken a number of activities for drudgery reduction and enhancement of the quality of their lives,



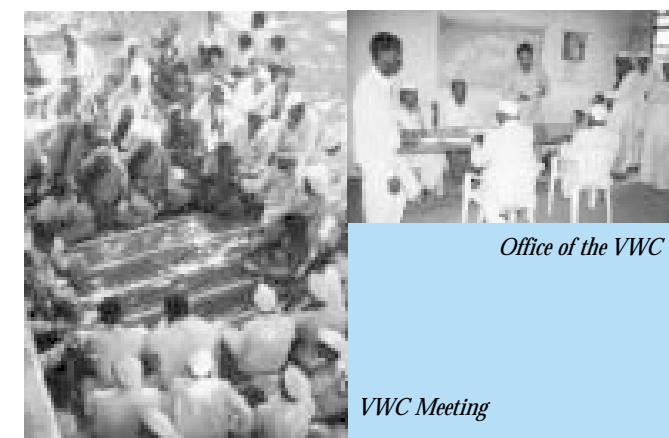
Microfinance to women's groups

Watershed treatments implemented:

Area Treatments:	Crop Cultivation	1040.77 Ha.
	Horti-pasture	3 Ha.
	Grassland with Trees	117.92 Ha.
	Afforestation	191.53 Ha.
	Reforestation and Aftercare	86.8 Ha.
Drainage Line Treatments:	Loose Boulder Structures	4 Nos.
	Masonry Weir	4 Nos.
	Check Weir	1 No.
	Check Dam	1 No.
	Repairs to Nala Bunds	12 Nos.

conserved and mobilized resources for betterment of their own life. The next stage was to mobilize and capacitate the community to undertake watershed development. People agreed to contribute voluntary labour and follow the social fencing principles such as ban on free grazing and tree felling.

As part of the capacity building activities, WOTR provided support and "hand-holding" through trainings, exposure visits, farmer-to-farmer extension, experience sharing workshops and gatherings. A simple but scientific and people-oriented technology was adopted for soil conservation, arresting the rainwater runoff and harvesting water, as well as greening the hills and wasteland. A series of technical treatments (contour trenches, gully plugs, farm bunds and contour bunds, check dams, etc.) along with bio regeneration (plantation, grass seeding, etc.) were undertaken. The once degraded landscape was slowly transformed, providing adequate drinking and irrigation water with increased soil moisture for better crop production and sufficient (sometimes even surplus) fodder and fuel.



Office of the VWC

VWC Meeting

such as soak pits, kitchen gardens, using cleaner cooking fuels, water supply system, toilet construction, etc. A number of income generation activities like dairy, nursery, fishery, etc. have also been undertaken. Most important of all, they manage their savings and credit groups with internal lending, which provides immediate loans for their basic needs. Through Micro-finance support provided by WOTR, the women's group has started a dairy.

The enhanced capacity of the villagers and their determination to take charge of their own development has also had its effect on the other government developmental agencies, which have contributed other developmental works.

Expenditure Incurred: (Rs.)

Labour	53,44,942.43
Material	18,61,655.83
Supervision	3,59,166.74
Shramadan (People's contribution)	11,21,558.35 <i>(17.34% of labour cost)</i>
Total exp. (including Shramadan)	86,87,323.35

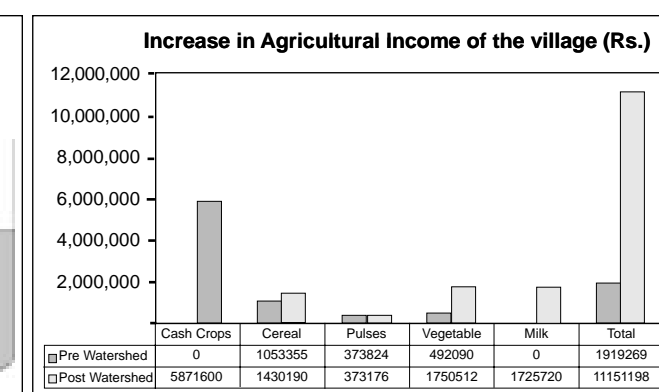
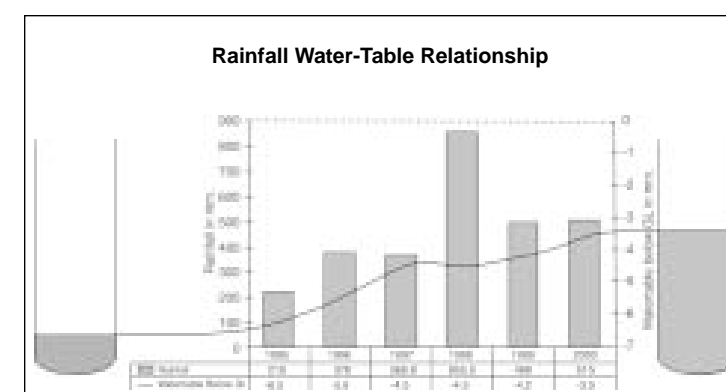
Government Development Support (in Rs.)

Drinking Water Supply and Distribution	1,089,000
Toilet construction (182 nos.)	637,000
Primary School Building	180,000
Road Construction	567,000
Afforestation	621,513
Total	3,094,513

Impact of the work:

Environmental impact is at times difficult to quantify, but perceptions of the people can substantiate this impact. The clean and filtered water in the stream, the survival and vigor of plant growth (which is recorded at over 100,000 plants), the grass on the mountains and wastelands, where earlier only black rock and cactus existed, all bear witness to the changes that have taken place.

Impact indicators	Pre-Watershed 1996	Post-Watershed 2001
Drinking water supplied by tanker during the months	February to June	Tanker free
Number of wells	23	63
Average depth of water table below ground level	6.5 m	3.5 m
Land under irrigation:	Perennial	0 ha.
	Seasonal	197.23 ha.
Electric motor for pumping water		6
	Cropped area:	
Main Crops:	Kharif (Monsoon)	490.24 ha.
	Rabi (Winter)	310.18 ha.
	Summer	0 ha.
Waste land	Bajra (Pearl Millet)	Bajra, Onion, Tomato, Wheat, Jowar (Sorghum), Maize, Vegetables
		167.83ha.
Livestock:	Crossbred cows	14
	Indigenous cows	170
	Sheep	1017
	Goats	306
	Milk Production	Insignificant
Fodder availability	1054 tons/year	2848 tons/year
Agricultural employment	3-4 months (months/year)	9-10 months
Agricultural wage rate	Rs. 20-30	Rs. 40-50
Land Value (Rs./acre)	Cropped land	15,000
	Waste land	4,000
Biogas	0	2
Gas cylinders	0	32
Smokeless chulhas (stoves)	0	54
Kitchen gardens	0	30
Individual latrines	0	50
Soak pits	0	10
Televisions	3	76
Cycles	2	122
Motorcycles	0	42
Tractors	0	2



Increased water and...



... improved agriculture

Difficulties encountered:

- The first difficulty in implementing the watershed program was the mistrust and exaggerated expectations on the part of the villagers towards the NGO. This was gradually overcome through several village meetings and constant contact with the villagers and through providing a realistic explanation of the project.
- Sheep rearing was the major secondary source of income for the farmers due to recurrent drought, and hence ban on grazing was unacceptable. Through regular meetings the strategy of implementation was explained where the ban on grazing would be applicable only for treated areas and the rest would be open for grazing. Gradually as more and more area got treated, the availability of grass also increased considerably and people could cut the grass and use it for fodder. Also, simultaneously the agricultural activity increased due to increased availability of water and livestock pattern also changed bringing in more economically productive animals. This slow transformation resulted in reducing the number of sheep and increase in income both through labour and agricultural and related activities.
- Some farmers who formerly cultivated the common lands created problems in constructing structures. This was resolved once the VWC discussed and resolved the issue involving the Gram Panchayat.

Benefits of the Program as perceived by the villagers:

- Work available within the village and therefore no need for migration
- Increasing water levels in the wells
- Better agricultural yields
- Shramadan has led to unity among the people
- Increased exchange with the outside world — exposures to other watersheds and visitors to Darewadi

Sustainability of the work:

As per the norms of the Program, an amount equal to 50% of the shramadan contributed by the community is returned to form the core of the Maintenance Fund (MF). Darewadi today has a total of Rs. 7,37,981/- in their MF. This includes an amount of Rs. 90,000 which was a prize awarded by NABARD on their successful completion of the work. A contribution of Rs. 100 per family per year also goes towards this MF as also the fines charged from individuals who go against the disciplines of the Program. The MF is utilized to undertake repairs in the drainage line structures and the treatments in common property resources such as forest and community land.



Water flowing from broken handpump

Ramaji B. Phad, Sheep owner:

The profile of the village has changed totally. Our village has benefited tremendously. The surrounding hills are now covered with trees which we had planted at the beginning. The water level in the wells and the ground water level have increased. The average income of the farmer has increased and this has raised the standard of living. People are now able to eat good food like wheat, rice and dal.