

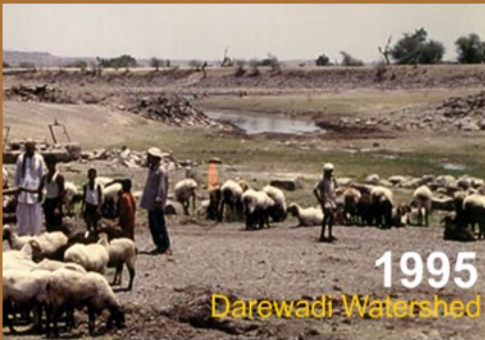


WATERSHED ORGANISATION TRUST

"WOTR for Earth, for Humanity and Harmony"

STRENGTHENING THE CAPACITIES OF RURAL COMMUNITIES TO ADAPT TO CLIMATE CHANGE IN SEMI-ARID AND RAIN FED REGIONS OF MAHARASHTRA

WATER, FOOD, THE ENVIRONMENT, AND CLIMATE CHANGE



In ecologically fragile and rain fed regions of India land degradation, local climatic variations, and frequent droughts together with unsustainable resource exploitation have led to severe depletion of land, water, and biomass¹ resources. Women in particular have borne the brunt of the hardship, having to trudge long distances in search of increasingly scarce water, firewood, and fodder for livestock, as well as put in long hours of back-breaking work to put food on the table.

The problem is further compounded by climate change. With India's climate expected to become warmer, temperature differentials and variations will increase. Monsoon patterns are expected to change, resulting in increased rainfall variability. Some regions will experience greater frequency of heavy rainfall while others, deficient and highly erratic precipitation. It is also likely that the pattern, incidence, and nature of pest attacks will change. Rising temperatures will likely increase the need for application of pesticides, reduce pesticide effectiveness, and increase residues. These impacts will have implications for water availability and quality, agricultural production, and food quality, which in turn will adversely impact already vulnerable small farmers and agricultural labourers. Climate change will thus further enhance the vectors of vulnerability of both ecosystems and those that depend upon them for survival, especially the poor. In 2007 the Intergovernmental Panel on Climate Change's (IPCC) *Fourth Assessment Report* conclusively established that climate change is a reality and unless aggressively addressed will be well beyond the coping capacity of more than half the world's population.

WOTR, ECOSYSTEMS, AND CLIMATE CHANGE

Since 1993 WOTR has been at the forefront of mobilizing vulnerable communities to help themselves out of poverty by harvesting rainwater wherever it falls and regenerating the ecosystems upon which they depend, confirming that the well-being and economic sufficiency of agrarian communities is directly related to the productivity, quality, and range

¹ Forests, pastures, grasslands, wetlands, etc.

of services that ecosystems provide. The *World Resources Report 2008* convincingly established the relationship between ecosystem management, good governance, and poverty reduction, and argued that "ecosystems can become the focus of a powerful model for nature-based enterprise that delivers continuing economic and social benefits to the poor, even as it improves the natural resource base."² Thus the health of ecosystems are of vital concern to the rural poor, and addressing these linkages is all the more pressing given that the 2005 Millennium Ecosystem Assessment found that 15 out of 24 major ecosystems it assessed were either degraded or being used unsustainably.

For the last 3 years, WOTR has reorganised itself to specifically address the challenges (and opportunities) posed by climate change to vulnerable rural communities living in arid and semi-arid rain dependent regions of India. It is heartening to note that of the seven primary sectors identified by the IPCC as requiring urgent attention, WOTR is engaged in most of them and in terms of suggested adaptive responses, is already substantially represented in all of the nature-based ones.

OBJECTIVE

WOTR's project seeks to develop the knowledge, strategies, approaches, measures, and processes that enable vulnerable communities to cope with and adapt to these impending impacts and that are also widely adoptable, replicable, and up-scalable.



² World Resources Institute (WRI) in collaboration with United Nations Development Programme, United Nations Environment Programme, and World Bank. 2005. *World Resources 2005 The Wealth of the Poor: Managing Ecosystems to Fight Poverty*. Washington, DC: WRI.



PROJECT AREA, INTERVENTIONS, AND TIMELINE

The project will be implemented in two clusters in the Akole and Sangamner Blocks of the Ahmednagar District of Maharashtra State. Both areas represent different agro-ecological and climatic zones, are culturally and ethnically different, and represent different levels of backwardness and integration with the wider economy. These two different ecological

and demographic zones together represent the bulk of vulnerable and poor communities in rain fed agrarian India. The experience gained, insights acquired, and learning drawn from the project will thus have widespread relevance and applicability.

Project Area:

- 25 villages
- 4,745 households
- 25,780+ people
- 20,550+ hectares

Project Timeline:
April 2009-
March 2013

Since little experience and validated field level successes exist in terms of building resilience and capacities of poor rural communities to adapt to climate change, this effort will necessarily be of an innovative, exploratory, and experimental nature. While some tried and tested techniques and methods will be used, new approaches will also be undertaken. Such approaches will have to be tried and implemented in order to draw lessons and devise best practices that can be later widely replicated and scaled up.

IMPLEMENTATION MECHANISMS, PARTNERS, AND ALLIANCES

The project will be implemented by WOTR in collaboration with its sister organisations, namely, Sampada Trust and the Sanjeevani Institute for Empowerment and Development (SIED), and supported by the Swiss Agency for Development Cooperation (SDC) and the National Bank for Agriculture and Rural Development (NABARD).

At the village level, people will be organised into Village Development Committees (VDC) that will be inclusive, representative, and nominated by the village community (Gram Sabha). The VDC will become a sub-committee of the Gram Panchayat.³ The VDCs in each cluster will be federated into a Cluster Development Committee so that mutual learning occurs, experiences are shared, and concerted action is undertaken across fairly large areas.

Women in the project villages will be organised into Self Help Groups (SHGs) which will be federated at the village level into an Apex Joint Women's Committee (SMS).⁴

³ The Government of Maharashtra has passed enabling legislation to this effect and amended the Bombay and Village Panchayat Act, 1958 suitably.

⁴ In the local language, this Committee is called the "Samyukta Mahila Samittee" or SMS for short.

PROJECT COMPONENTS

WOTR will be undertaking the following measures:

Promotion of Climate Change Adaptive Behaviour and Disaster Risk Mitigation

- Participatory, comprehensive, and integrated watershed and ecosystems management along watershed lines.
- Integration of biodiversity conservation in adaptation and mitigation measures.
- Building up of food security through promoting sustainable agriculture.
- Development and establishment of integrated crop-micro irrigation systems and practices.
- Promotion of sustainable livelihoods.
- Gender and women's empowerment.

Empowering, Equipping, and Enabling WOTR...

... to serve as a national and international referral centre on climate change adaptation.

Promotion of Renewable Energy as a Well-Being and Mitigation Measure

- Alternate and renewable energy for household cooking and lighting.
- Greenfield/emerging technologies.

Capacity Building, Knowledge Generation, Dissemination, and Policy Dialogue

- Training, experience sharing, and advisory services.
- Action research and communications.
- Development of tool kits, indicator sets and Technology-enabled monitoring systems.
- The School of Sustainable Living and Livelihoods (SSLL).
- Policy advocacy and dialogue.

For more information about this and other projects of the Watershed Organisation Trust, please visit our website at <http://www.wotr.org>.