

ANNUAL REPORT 2011-2012



UNDER THE CLIMATE LENS...



Watershed Organisation Trust

Annual Report 2011-2012

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Watershed Organisation Trust

CONTENTS

| | |
|--|-----------|
| Section I | 5 |
| Philosophy, Vision, Mission | 6 |
| Board of Trustees | 7 |
| Foreword | 8 |
| List of Abbreviations | 11 |
| About WOTR | 12 |
| Consultancy Services and Products Offered | 13 |
| WOTR Involvements | 14 |
| Area of Operation | 16 |
| Training Outreach | 17 |
| Overview of Activities (Cumulative upto March 2012) | 18 |
| Section II | 23 |
| Activities 2011-2012 | 24 |
| Capacity Building Support for Watershed Development and Rainfed Natural Resources Management | 24 |
| Direct Implementation of Projects | 25 |
| Climate Change Adaptation Project | 28 |
| Drinking Water and Sanitation | 41 |
| Renewable Energy | 43 |
| Women's Empowerment | 44 |
| Health & Nutrition | 45 |
| Community Managed Rural Tourism | 47 |
| Knowledge Management | 47 |
| Communications & Outreach | 50 |
| The School of Sustainable Living and Livelihood (SSLL) | 50 |
| Section III | 53 |
| Networking and Linkages | 54 |
| Highlights | 55 |
| What Visitors Say... | 57 |
| Financial Statement | 59 |
| Our Donors and Enablers | 60 |
| Contact Details | 61 |



Philosophy

WOTR believes that land degradation and water scarcity are the most intense and commonly felt needs of a village community that can bring different groups of people together to begin their development process. Community restoration of the natural environment makes sustainability happen. Such community-led efforts help combat challenges and adapt to climate change and mitigate its impacts.

Vision

Communities, especially the poor within, are empowered to live in dignity and secure their livelihood in sustainable eco-systems.

Mission

To provide committed development support that motivates, energizes and empowers individuals, groups, communities and other organizations to undertake integrated ecosystems development for enhancement of well-being on a sustainable basis.

Board of Trustees



Fr. Hermann Bacher
Founder Chairman

He is known as the ‘father of watershed development movement in Maharashtra’ and the reason is obvious enough. Born in Switzerland, Fr. Bacher made Maharashtra his home early in life. Having come into close contact with villagers whose lives had been turned upside down for lack of water resources, he initiated watershed development activities and subsequently co-founded WOTR. His favourite lines have been: “Without watershed development, there is no solution to drought” and “Water is the problem; WOTR, the solution.”



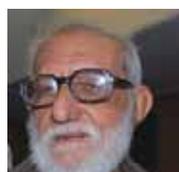
Members:
Mr. Asoke Basak
IAS (Retired)

When it comes to an understanding of the functioning of government agencies, there is none better than Asoke Basak, now a retired IAS officer who served as the Additional Chief Secretary of the government of Maharashtra, Chairman of the Maharashtra State Electricity Board, Chief Executive Officer of the Zilla Parishad-Bhir, Collector of Nasik and Nanded, Dairy Development Commissioner and has worked with the Maharashtra government in various other positions. He has two Masters degrees in Geology and Business Administration and a Diploma in Systems Management to his credit. His diverse experience in various fields of development administration is what has proved to be of immense benefit to WOTR.



Mr. Crispino Lobo
Co-Founder & Managing Trustee

An alumnus of the Gokhale Institute of Politics and Economics, India, and the Kennedy School of Government, Harvard University, USA, Crispino has five academic degrees covering the fields of philosophy, theology, psychology, economics and public administration. He is well known in development circles for his knowledge and achievements in the fields of natural resource management, participatory watershed development and integrated water resources management. He co-founded WOTR, together with Fr. Bacher. He now heads the Sampada Trust, a microfinance and entrepreneurship development centre.



Dr. G.G. Parikh
Chairman (Yusuf Meherally Centre)

A well known freedom fighter and champion of the poor, ‘G G’ as he is known to his friends, Dr. Parikh is one of the mainstays of the Yusuf Meherally Centre, a centre for rural re-empowerment, located in Tara village, Panvel. At 84, he travels the 90 or so kilometres to Tara in Raigad district, near Mumbai, on a weekly, and sometimes bi-weekly, basis and continues his medical work at his clinic in Mumbai for the rest of the week. Dr. Parikh is also working on a Khadi Gramodyog Andolan. He has been on the Board of Trustees of WOTR since 1996.

Foreword

WOTR has historically had a systems-based approach to Watershed Development – aware of the increasing fragility of ecosystems and strengthening these through people-centric, participatory interventions.

Since 2008, WOTR has been reorienting, re-organising and equipping itself with respect to strategy, approach, focus, interventions and measurable indicators in order to specifically address the challenges (and opportunities) posed by climate change to vulnerable rural communities. In the process, it has introduced new approaches and interventions bringing Adaptation into the focus-forefront.

We have introduced several **new concepts and interventions**:

Ecosystems-based Watershed Development - which is a means to reduce risks, mitigate the impact of extreme meteorological events, increase productivity, conserve biodiversity, improve quality of life, and stabilise and enhance nature based livelihoods.

Adaptive Sustainable Agriculture promotes low external inputs and use of indigenous seeds to increase land productivity and reduce cost of cultivation. This is combined with agro-meteorology and water budgeting to make agriculture sustainable, efficient and adaptive keeping in mind food security, nutrition security and market demands.

Agro-meteorology uniquely combines locale-specific Met-advisories (weather forecasts) and Agro-advisories that provide timely information to farmers so that they can plan their agricultural activities accordingly. This is supported by a Content Management System that electronically archives crop related information, weather conditions affecting major pest and disease incidences, and cultural practices of crop management supported by crop-calendars.

Water Budgeting helps communities visualize and plan their crops based on their existing needs and requirements of water and water availability, ensuring optimum and efficient use of water by optimizing irrigation, equitable sharing of excess water, and considered decisions on groundwater withdrawals.

Integration of **Biodiversity concerns** builds awareness in the community about the importance of promoting, conserving and protecting the local biodiversity, helps them keep a record of it through participatory mapping, identify and sustainably

promote biodiversity-based economic activities, and address likely adverse biodiversity-related impacts of decisions taken by local bodies.

This process of change has been a long-drawn out one and has crystallized over the last 4 years from our own ground-level experiences of successes and failures.

We have been **rethinking conventional development** and have introduced approaches like **Systems Thinking and Complexity** in analysis and programming and are developing strategies to incorporate these.

Keeping the above Complexity and its ramifications in mind we have been developing **tools and frameworks** while adapting existing ones. These help us move from activity based project design & management to framework based project design, management, and monitoring & evaluation that are **indications** based rather than **indicators** based, especially of impacts that may not be visible in the short-term but will emerge in the long-term.

We have simultaneously redesigned and adapted our **research methods** where members of local communities become researchers observing, measuring, and assessing for themselves not only problems but also the improvements that a project brings about. We have also been taking up new researches at the ground to assess climate related impacts.

Since these are new areas of thinking and approaches, our own field and research teams have undergone a series of **trainings** over the last 3 years. Similar capacity building sessions have also been carried out with key people from the local communities. We are now designing and conducting training modules on implications of Climate Change, vulnerability assessment, climate-smart project planning, implementation, and monitoring, for other implementers and development practitioners.

We have also ramped up our communications to put together information quickly, in different formats that highlight indications and experiences at the local level and the causal relationships for these in a non-linear fashion. For this WOTR uses all the available web media and technologies to publicise issues as well as experiences.

Since ecosystems and communities are interlinked, WOTR has adopted a **cluster based approach** in which regenerated and sustainably managed ecosystems provide the bedrock onto which all other interventions are anchored.

In order to increase the productivity and efficiency of the farmer, land and water available amidst changing local weather conditions, we are developing integrated

crop-water-nutrient-pest management schedules for specific crops. An initiative to provide weather related crop advisories regularly is also underway. A Content Management System called “Agrimate” which aims to electronically archive crop related management practices and automate dissemination tailored to farmer needs is ready now.

Local Biodiversity mapping using modified People’s Biodiversity approach is being undertaken so as to identify, describe, and conserve local seeds, flora and fauna with a view to building resilience of local communities and ecosystems to extreme climate events. Such resources can also become sources of alternative “green livelihoods” and sustenance especially in times when traditional resources fail.

We have developed various community-centred, IT enabled tools to map vulnerability and its drivers, and identify mitigative and adaptive responses: CASDAAT - Climate Adaptive Sustainable Development Assessment & Adjustment Tool and LM3 - Local Money Multiplier; Vulnerability Assessment Tool (VAT), Participatory 3D Modeling for Climate Change Adaptation, Modified People’s Biodiversity Register, AgriMate, and Water Budgeting are in the works.

We are grateful for the immense support of the Embassy of Switzerland in India, the Swiss Agency for Development Co-operation and NABARD who have partnered us in our efforts.

Dr. Marcella D’Souza
Executive Director

Crispino Lobo
Managing Trustee

List of Abbreviations

| | |
|------------|--|
| AHB | AndheriHilfe, Bonn |
| BMZ | German Ministry for Economic Cooperation |
| CASDAAT | Climate Adaptive Sustainable Development Assessment & Adjustment Tool |
| CBOs | Community Based Organizations |
| CBP | Capacity Building Phase |
| CCA | Climate Change Adaptation |
| DTC | Darewadi Training Centre |
| ECOs | Ecological Community Organisers |
| GoM | Government of Maharashtra |
| GP | Gram Panchayat |
| GTZ | German Agency for Technical Cooperation |
| IGWDP | Indo-German Watershed Development Programme |
| IRHA | International Rainwater Harvesting Alliance |
| ILRI | International Livestock Research Institute |
| IT | Information Technology |
| KfW | German Development Bank |
| MDGs | Millennium Development Goals |
| MPs | Mahila Pravartaks |
| MREGS | Maharashtra Rural Employment Guarantee Scheme (MREGS) |
| NABARD | National Bank for Agriculture and Rural Development |
| NGO | Non-Governmental Organisation |
| NHWDP | NABARD supported Holistic Watershed Development Program |
| NREGS | National Rural Employment Guarantee Scheme |
| NRM | Natural Resources Management |
| PIAs | Project Implementing Agencies |
| PPCP | Public Private Civil Society Partnership |
| PRIs | Panchayati Raj Institutions |
| RSO | Resource Support Organisation |
| SDC | Swiss Agency for Development and Cooperation |
| SHGs | Self-Help Groups |
| SIED | Sanjeevani Institute for Empowerment and Development |
| SMS | Samyukta Mahila Samiti |
| SPS | School of Public Service |
| SRTT | Sir Ratan Tata Trust |
| SLL | School for Sustainable Living and Livelihoods |
| ST | Sampada Trust |
| UNCCD | United Nations Convention to Combat Desertification |
| VDC | Village Development Committee |
| VPM | Vidarbha Panlot Mission |
| VSHGs | Village Self-Help Groups |
| VWCs | Village Watershed Committees |
| WASUNDHARA | WOTR Attentive to Social Unity for Nature, Development and Humanity in Rural Areas |

About WOTR

Watershed Organisation Trust (WOTR) is one of the premier NGOs tackling water scarcity, rural poverty, and food insecurity in the dry lands of India today.

WOTR's specific objectives are to regenerate the natural ecosystem with a strong participatory, people-centric approach that will simultaneously repair the torn social-fabric of communities; address severe water-scarcity, recurring drought, low-agricultural productivity, resulting in chronic hunger and mal-nutrition, maladaptation; alternative, diversified livelihood opportunities through partnerships between diverse groups: villages, NGOs, Government within India and across countries.

WOTR does:

- Capacity Building and Implementation Support
- Direct Project Implementation
- Expertise and Service Provisioning
- Knowledge Management
- Action research
- Networking and Policy Dialogue

In the current climate of a changing Climate, WOTR's endeavour is to now see development through a Climate lens that focuses on a development paradigm that strengthens the adaptive capacities of the Ecosystems and the communities living within them. The effort is to build resilience in communities that can take growth paradigms towards compassionate and eco-system based ones. The perspective is now broadened to address resource-scarcities that usually leave communities spiraling in economic and climate vulnerabilities.

In all, WOTR has worked in 2,531 villages in 33 districts of the five states of Maharashtra, Andhra Pradesh, Madhya Pradesh, Rajasthan and Jharkhand. In its 19 years it has organized 1,145 watershed development and (currently) climate change adaptation projects 53 villages, covering over 695,226 hectares and impacting 988,465 people. Its women's SHG promotion, micro-finance, trainings and other initiatives 5,045 self-help groups, which use micro-financing to empower villagers with a desire to work but no resources to get started. Over 65,783 women have improved their lives through these ground-level organizations. This is either by direct implementation or by handholding NGOs and village committees in implementation. WOTR has 184 NGOs and government Project Implementing Agencies (PIAs), which are vital partners in WOTR's extensive development network.

WOTR's CCA project is specifically implemented in 53 villages of Maharashtra, Madhya Pradesh and Andhra Pradesh covering an area of 33,242 ha (332 sq.kms), directly benefitting 52,000 people from 9,800 households. The learnings crystallized from these will be taken forward in all our future interventions.

Consultancy Services and Products Offered

With competencies in Watershed Development and Natural Resource Management, Integrated Water Resources Management, Rural Development, Community Mobilization, Gender and Women's Empowerment, Systems Development and Capacity Building, WOTR offers a variety of consultancy services to various stakeholders such as forest departments, corporate houses, government departments and NGOs.

Trainings and Exposure Dialogue: Designing and conducting need and demand-based trainings in natural resource management, participatory and integrated watershed development, community mobilization, application of IT to project management and entrepreneurship development.

Capacity Building and Institutional Development: Upgrading the financial, managerial, technical, social, organizational, team building and communication skills of developmental agencies and primary stakeholders through custom-made, systems-based and outcome-oriented pedagogies, with hand-holding and on-site accompaniment.

Project Proposal Preparation and Advisory: Project design, proposal formulation, feasibility studies and project proposal preparation.

Project Supervision, monitoring & evaluations: Supervision, monitoring, review and evaluations studies.

Programme Management: Management of projects and funds on behalf of donors involving multi-stakeholders such as civil society actors, NGOs, corporate and government agencies.

Information Technology and Software Development Support

- ***Development Communication and Documentation such as*** audio, video and photographic documentation of the process and project works, as well as preparation of thematic documentaries.
- ***Learning Systems:*** Development of processes, instruments and mechanisms that help individuals and organisations to capture, archive and process data and information in a manner that promotes and facilitates learning, insight, adaptation and behavior change, increasing efficiency, effectiveness and sustainability and makes the organisation into a learning and knowledge entity.

Corporate Consultancy: Designing of survey and estimates, project formulation, soil and water conservation measures, supervision and monitoring. The local communities, NGOs and corporate team are capacitated to promote the development process in their area.

WOTR Involvements

Programme Support

1. Indo-German Watershed Development Programme (IGWDP), Maharashtra
2. Resource Support Organisation for Vidarbha Distress Development Program in Maharashtra (PM/NABARD)
3. Resource Support Agency for Rural Development Interventions in South-East Madhya Pradesh
4. Resource Support Agency in Tribal Belt of South Rajasthan
5. State Resource Organisation and District Resource Organisation for IWMP Projects in Maharashtra
6. Support Training Institute for Hariyali Programme (GoM) in Dhule and Amravati District

Direct Project Implementation

Projects directly implemented by WOTR

1. Integrated Watershed Development projects in Maharashtra, Andhra Pradesh, Madhya Pradesh, and Rajasthan
2. Water Harvesting and participatory Water Budgeting
3. Adaptive Sustainable Agriculture and Livelihoods
4. Health, Water and Sanitation Promotion
5. Women's Empowerment
6. Micro-Finance (taken over by Sampada Trust – a sister institution)
7. Information Technology and Management Information Systems (IT-MIS)
8. GIS and Remote Sensing -based, MIS-linked Analytical and Decision Support Systems
9. Renewable Energy
10. Community Based Rural Tourism

Services Provided

1. Capacity Building/Trainings provided to local partners, national and international participants
2. IT based Services (Applied Information Technology)
3. Program and Project Management (including Feasibility Studies and Proposal Formulation)
4. Research and Knowledge Management
5. Training support on "Lean Management" (Kaizen Methodology) for productivity enhancement

6. Consultancy services.
7. Policy Dialogue, Networking and Linkage Building.

Networking and Advocacy

WOTR is/has

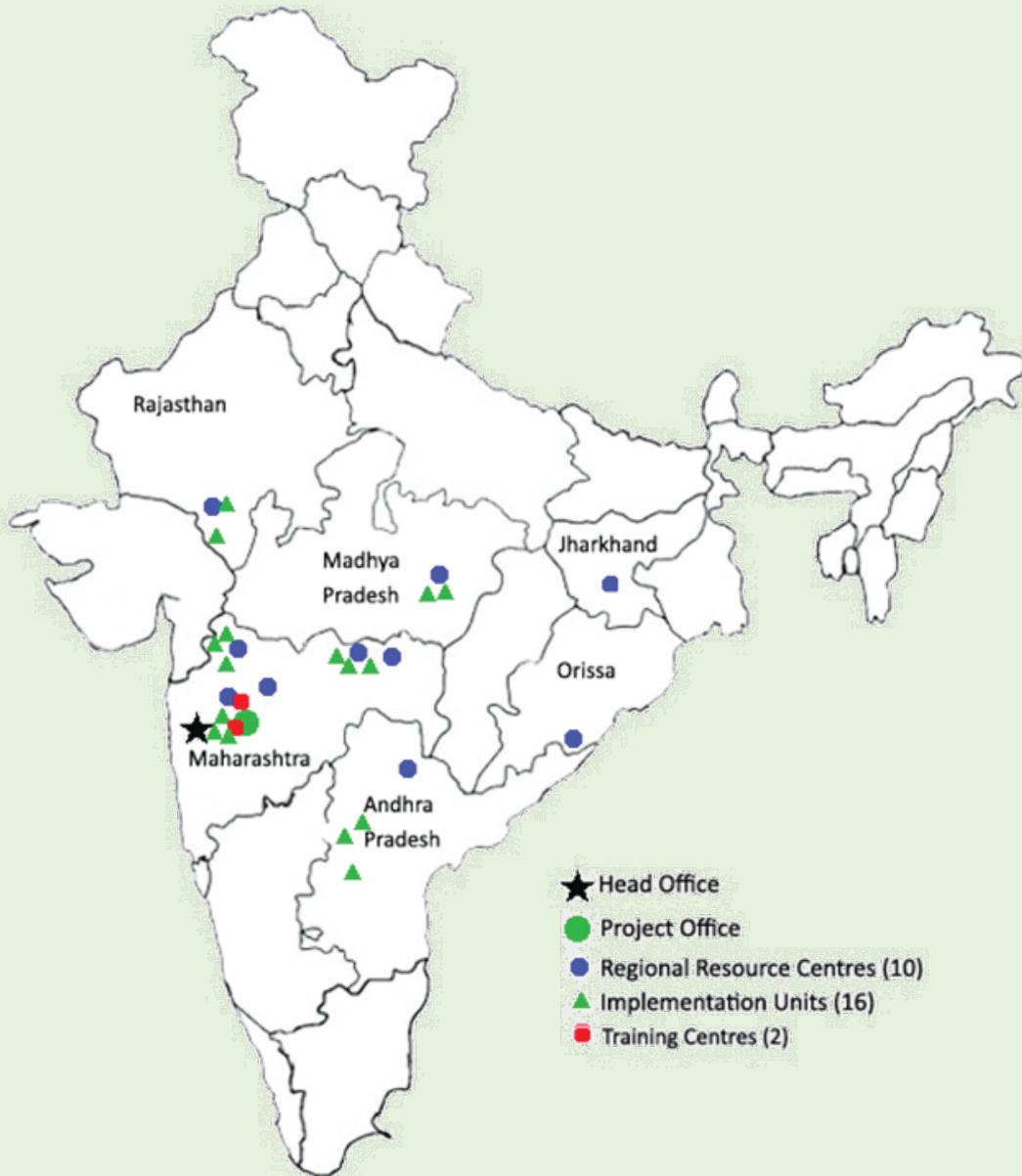
1. Supported a network of 184 NGOs/Govt. PIAs
2. Supported over 400 NGOs across India and 200,897 persons from 35 countries in training/capacity building
3. Co-founder and member IRHA (International Rainwater Harvesting Alliance, Geneva)
4. Accredited observer status to the UNCCD as CSO.
5. Close cooperative arrangement with the Govt. of India, Govt. of Maharashtra, Govt. of Rajasthan, Govt. of Andhra Pradesh and Govt. of Madhya Pradesh.

New Partnerships

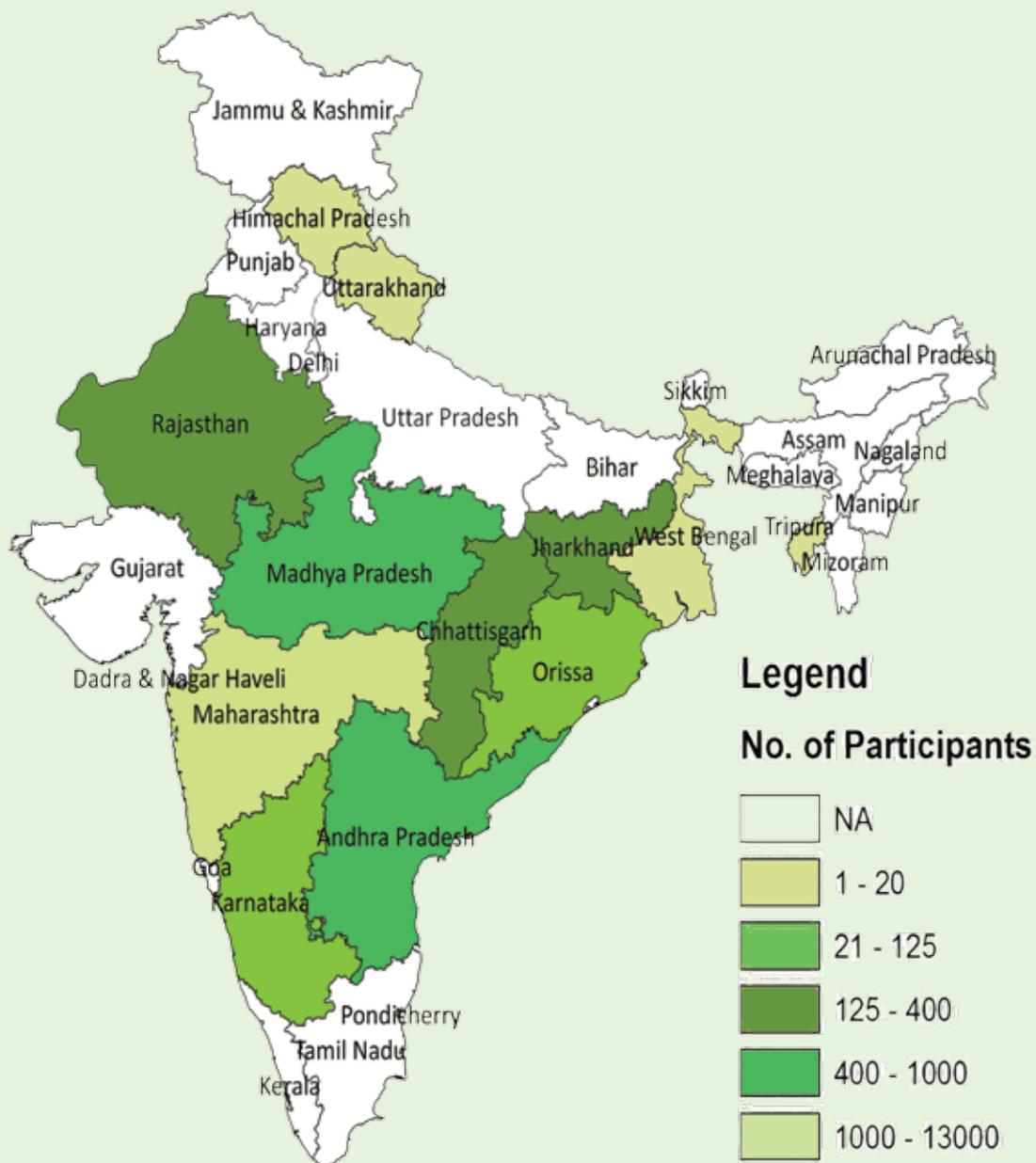
WOTR has entered into new partnerships with several organisations that bring in their expertise for the Climate Change Adaptation project. WOTR has signed MoUs with:

- (i) The Indian Meteorological Department (IMD)
- (ii) Central Research Institute for Dryland Agriculture (CRIDA)
- (iii) International Centre for Research on Agriculture and Forestry (ICRAF)
- (iv) Mahatma Phule Krishi Vidyapeeth (MPKV)
- (v) Bharati Vidyapeeth Institute of Environment Education and Research (BVIIEER)

Area of Operation



Training Outreach



Overview of Activities (Cumulative upto March 2012)

Activities Cumulative up to 31st Mar 2012

| Sr. No. | Activities | Cumulative up to 31 st Mar 2012 |
|-----------|---|---|
| | Total Operations | 1121 villages 148 NGOs / Govt. PIAs 30 districts (25 dist. Maharashtra, 3 in Madhya Pradesh & Rajasthan & 2 in Andhra Pradesh) 674,096 hectares 956,936 people benefitted |
| 1. | Capacity Building Support (Community management of natural and other resources) | |
| | i. IGWDP, Maharashtra / Other Funding | 407 villages 25 districts 88 NGOs 220,022 ha. benefitting 277,722 people |
| | ii. Resource Support Organisation (RSO) for Vidarbha Distress Development Program in Maharashtra (PM/NABARD) | 106 villages (24 clusters) 2 districts 11 NGOs 59,337 ha. benefitting 70,631 people |
| | iii. Govt. of Maharashtra DPAP, Hariyali, IWDP, VPM | 279 villages 4 districts 46 NGOs / PIAs 173,903 ha. benefitting 262,837 people |
| | iv. Resource Organisation for Rural Development Interventions in South-East Madhya Pradesh | 8 villages 3 districts 4 NGOs / PIAs 5,027 ha. benefitting 4,281 people |
| | v. Resource Support Agency in Tribal Belt of South Rajasthan | 6 villages 2 districts 3 NGOs / PIAs 3,282 ha. Benefitting 9,105 people |
| | Total Capacity Building Support | 806 villages 30 districts (25 Maharashtra, 3 Madhya Pradesh and 2 Rajasthan) 461,582 ha. 623,706 people benefitted |

| Sr. No. | Activities | Cumulative up to 31 st Mar 2012 |
|------------|--|---|
| 2 | Direct Implementation of Projects | |
| 2.1 | Watershed Development & Natural Resource Management | |
| | Maharashtra IGWDP, WOTR-WASUNDHARA | 110 villages 11 districts 64,418 ha. benefitting 78,885 people |
| | PPCP - MREGS-NREGA | 109 villages 4 districts / 5 blocks 90,834 ha. 131,071 people benefitted |
| | Andhra Pradesh APRLP, IWMP and NABARD-WDF | 38 villages 2 districts 29,254 ha. benefitting 77,633 people |
| | Madhya Pradesh | 11 villages 1 district 2,881 ha. benefitting 5,029 people |
| | Rajasthan WOTR WASUNDHARA(AHB) | 8 villages 2 districts 4,076 ha., benefitting 11,393 people |
| | PPCP-MGNREGA | 13 villages 1 district 4,647 ha. benefitting 5,261 people |
| 2.2 | Promotion Of Climate Change Adaptation | |
| | Maharashtra | 39 villages 26,062 ha. 31,852 people |
| | Madhya Pradesh | 8 villages 2,859 ha. 4,866 people |
| | Andhra Pradesh | 6 villages 4,331 ha. 14,642 people |
| | Total Climate Change Adaptation | 53 villages 33,252 ha. 51,360 people |

| Sr. No. | Activities | Cumulative up to 31 st Mar 2012 |
|------------|--|--|
| 2.3 | Drinking Water & Sanitation | |
| 2.3.1 | Drinking Water provisioning | 119 villages / hamlets. Benefitting over 45,000 villagers |
| 2.3.2 | School Environment and Sanitation Projects | Toilet and drinking water system in 119 villages / 168 schools |
| 2.4 | Renewable Energy for Rural Development | Solar Home-lighting systems in 3,478 households Solar Street Light units at 31 places in 13 villages Agni biomass stove for 3,563 households Hot water/smokeless chullahs for 2,658 households Solar Parabolic Cookers in 19 rural schools |
| 2.5 | Women's Self-Help Promotion and Developmental activities | 5,045 savings and credit groups promoted for 65,783 women members |
| 2.6 | Health & Nutrition | |
| 2.6.1 | Health promotion | 42 villages 83 MahilaPravartaks (Women Health Promoters) trained |
| 2.6.2 | Child care and Growth Monitoring ² (0 – 5 age group) | 130 villages 3 districts 7,087 children benefited |
| 2.7 | Bio –Village Activity: To build awareness among the communities about the problems in current agricultural practices and implement organic farming through bio-dynamic methods of cultivation Activities: Baseline data collection Exposure visits to bio-dynamic villages Trainings on Bio-dynamic farming and certification Demonstration on biodynamic preparations Farmers field schools | 7 villages/ 7 districts from 4 different regions of Maharashtra |
| 3. | Consultancies Consultancies undertaken <ul style="list-style-type: none"> • Watershed development • Natural Resources Management • Monitoring & Evaluation • Project Evaluation | India (in 7 States) <ul style="list-style-type: none"> • 7 Govt. Institutions • 7 Non Govt. Institutions • 10 Corporate Sectors Other than India Somaliland, Kenya , Tanzania , Malavi, Bhutan, Sudan |

| Sr. No. | Activities | Cumulative up to 31 st Mar 2012 |
|------------|--|---|
| 4. | Trainings & Education | |
| 4.1 | Trainings <ul style="list-style-type: none"> • For Implementing Partners • National Level Programs • International Level Programs | 5,988 programs / 194,270 participants 755 programs / 21,467 participants 39 programs / 530 participants |
| | Total Trainings | 6,782 programs / 216,209 participants |
| 4.2 | The School for Sustainable Living and Livelihoods WOTR has started the School for Sustainable Living & Livelihoods since year 2007. Candidates from project villages in rural areas of Maharashtra, Madhya Pradesh and Rajasthan are being trained as ECOs (Ecological Community Organisers) and Rural Chroniclers (RC). | 69 (19 females) candidates have successfully completed their course 38 (7 female) candidates are being trained Total of 107 (26 female) rural youth are benefitting from this initiative. |
| 4.3 | School Strengthening Programme (SSP) Objective To make Teaching and Learning Interesting and Meaningful (Connection Between Education & Child's Life) | 2 clusters / 9 villages in Sangamner and Akole talukas, Ahmednagar district. |
| 5. | Community Managed Rural Tourism | It is being carried out in 3 villages of Akole taluka, Ahmednagar District |
| 6. | Research and Knowledge Management | Socio-economic Baseline Studies of several Watershed Villages and 58 Research Studies on various topics have been completed |
| 7. | Communication & Documentation | 37 books 60 films on various topics have been published/ produced |
| 8. | Information Technology | Software systems: DSS <ul style="list-style-type: none"> • Participatory Net Planning • GPS enabled muster data collection and reporting system, • Web based GIS software, • HR Admin System and Weather data analysis systems 2 multimedia games ("Water Budgeting" and "Rural Transformations") developed for community mobilisation |

Activities 2011-2012

Capacity Building Support for Watershed Development and Rainfed Natural Resources Management

WOTR's primary focus, since its inception in 1993, has been capacity building of and support to NGOs and CBOs in Watershed Management. The objective is to mobilise the self-help capacities of individuals and communities to regenerate the eco-spaces or watersheds they live in, harvest rainwater wherever it falls, use it productively and undertake sustainable livelihoods which takes them out of poverty. This has been done through enhancing capabilities of NGOs, and other implementing agencies for rural communities to regenerate and manage the watersheds they live in.

| Capacity Building Support (community management of natural and other resources) | |
|--|---|
| i. IGWDP, Maharashtra/Other Funding | 67 villages 5 districts 13 NGOs 39,090 ha. benefitting 60,631 people |
| ii. Resource Support Organisation (RSO) for Vidarbha Distress Development Program in Maharashtra (PM/NABARD) | 106 villages (24 clusters) 2 districts 11 NGOs 59,337 ha. benefitting 70,631 people |
| iii. Resource Organisation for Rural Development Interventions in South-East Madhya Pradesh | 8 villages 3 districts 4 NGOs / PIAs 5,027 ha. benefitting 4281 people |
| iv. Resource Support Agency in Tribal Belt of South Rajasthan | 6 villages 2 districts 3 NGOs / PIAs 3,282 ha. benefitting 9105 people |
| Total | 187 villages 11 districts (Maharashtra-6, MP-3 and Rajasthan-1) 106,748 ha. benefitting 143,778 people |

Program Management and Resource Organisation for large-scale projects in Watershed Development

NGOs and Village Self-Help Groups (VSHGs) are guided by WOTR to undertake environmental regeneration through trainings and handholding support. During the year, 42 NGOs and Govt. PIAs of Maharashtra, Madhya Pradesh, Andhra Pradesh and Rajasthan were accompanied in bilateral, government and other donor funded projects, with the objective of increasing capacities of NGOs and of the local communities, especially vulnerable groups, to adapt to climate change and to undertake adaptive measures that mitigate vulnerabilities.

Direct Implementation of Projects

Watersheds & Ecosystem Management

While WOTR has carried out a staggering extent of Capacity Building for Watershed Development for various agencies, the knowledge has come from large-scale WSD interventions of its own at the ground. WOTR's Wasundhara Approach, developed over a decade of implementing WSD is uniquely participatory. The 'Wasundhara' approach has been implemented in over 287 villages since 2005 with far-reaching impacts. The process continues beyond the project period. These guidelines are also followed in all the 270 villages that WOTR and SIED jointly and individually implement, across funding lines. WOTR continues to improve on these guidelines to make it more effective.

● Percolation Tank - Khama (Jabalpur) ●



| Direct Implementation of Watersheds by WOTR | | |
|---|---|---|
| Maharashtra IGWDP, WOTR-WASUNDHARA | 110 villages 11 districts 64,418 ha. benefitting 78,885 people | 30 villages 4 districts 16,185 ha. benefitting 19,152 people |
| PPCP - MREGS-NREGA | 109 villages 4 districts / 5 blocks 90,834 total area ha. 131,071 people benefited | 87 villages 4 Districts / 5 blocks 75,425 ha. benefitting 105,762 people |
| Andhra Pradesh APRLP, IWMP and NABARD-WDF | 38 villages 2 districts 29,254 ha. benefitting 77,633 people | 22 villages 2 districts 20,825 ha benefitting 46,289 people |
| Madhya Pradesh | 11 villages 1 district 2,881 ha. benefitting 5,029 people | 11 villages 1 district 2,881 ha. benefitting 5,029 people |
| Rajasthan WOTR WASUNDHARA(AHB) | 8 villages 2 districts 4,076 ha., benefiting 11,393 people | 7 villages 1 district 3,397 ha., benefiting 10,238 people |
| PPCP-MGNREGA | 13 villages 1 District 4,647 ha. benefitting 5,261 people | 13 Villages 1 District 4,647 ha. benefitting 5,261 people |

New Challenges – Watershed Development in the context of Climate Change

Watershed Development (WSD), classically understood, is basically a portfolio of measures designed to conserve soil, harvest rainwater, and increase vegetation and biomass. But since this can only be effectively and sustainably achieved through the active involvement and participation of people living in them, WSD must also address the sustenance, quality of life and livelihoods needs of resident communities and other stakeholders.

The challenge however, today, is not only to implement watershed projects efficiently in a participatory, comprehensive and integrated manner but to do so adopting an *eco-systems approach* that includes viable climate-smart livelihoods. This is necessary because human wellbeing today is critically dependent upon our ability to reduce GHGs emissions (mitigation), build resilience, reduce risk, manage change (adaptation), and drastically reduce poverty (development) in a manner that is sustainable and widely adoptable, since the crises facing us is intergenerational and universal. Regenerating, enhancing, conserving and sustainably managing ecosystems (which includes low impact but productive livelihoods) can make a huge contribution to mitigation, adaption and development.

Harnessing the water cycle in a watershed has been the primary focus of watershed interventions; hence the emphasis on engineering and mechanical structures of soil and water conservation. However, the amount and timing of effective rainfall we receive, the magnitude of runoff and the period of water retention and availability are itself services provided by ecosystems. Hence, a climate smart approach to WSD:

- adopts “systems” approach that looks at the watershed as a whole;
- takes into consideration all the key ecosystems subsisting therein;
- examines them in terms of their constituents;
- assesses their current status and potential to (i) conserve, sequester and abate GHGs (mitigation), (ii) reduce risk, build resilience and enhance capacities (adaptation) and, (iii) generate positive values and economic surpluses;
- and traces out the nature of interrelations between the various subsisting ecosystems.

This holistic, system-wide analysis would then enable us to identify those “least-cost” and “most benefit” interventions that would promote mitigation, adaptation and sustainable development.

Operationally, standard WSD practices follow a “ridge to valley approach” as the focus is to harvest as much rain water as possible. However, when one adopts an ecosystems approach, one would have to complement this approach with that of a “Landscape Approach” because ecosystems are embedded within identifiable geographical boundaries or land spaces in a watershed catchment. The landscape or ecosystems approach would allow for integrated and comprehensive planning of land, water, agriculture, forests, livestock, grasslands, fisheries to ensure that synergies are properly captured and dysfunctionalities identified. The landscape approach provides a framework for the better management of ecosystem services and is useful for addressing the issues of food, water and livelihood security; responding to the impacts of climate change and contributing to its mitigation.

WOTR’s Watershed and Ecosystems Management attempts to build both “hard” as well “soft” resilience within communities against disasters of slow and sudden onset such as droughts, moisture stress, infrequent and highly variable rainfall, intense precipitation, and pests and disease attacks. It is a multi-sectoral, multidisciplinary approach that involves continual interaction and exchange between and amongst the various sectors and disciplines.

For this, WOTR has brought about the following changes in its WSD practices:

- Redesigning WSD structures to withstand erratic and highly variable rainfall
- Placing structures with biodiversity in mind
- Biodiversity introduced in afforestation activity
- VDC’s role extended to include biodiversity committees
- Wasundhara Sevaks trained in CCA , biodiversity, DRR perspective
- Introducing Participatory 3D Modelling (P3DM)for DRR

Climate Change Adaptation Project

WOTR started its Climate Change Adaptation project with the support from Embassy of Switzerland and National Bank for Agriculture and Rural Development (NABARD) in the year 2009.

The project aims at developing capacities of the local communities to better handle the effects of climatic changes. It seeks to develop the knowledge, strategies, approaches, measures and processes that would help vulnerable communities to cope with and if possible, adapt to the impending climatic changes and which are also adoptable, replicable and scalable.

| Promotion of Climate Change Adaptation | |
|--|---|
| Maharashtra | 39 villages 26,062 ha. 31,852 people |
| Madhya Pradesh | 8 villages 2,859 ha. 4,866 people |
| Andhra Pradesh | 6 villages 4,331 ha. 14,642 people |
| Total | 53 villages 33,252 ha. 51,360 people |

The project activities are designed such that they help to achieve specific outcomes like enhanced ecosystems, increased productivity of natural resources, increased awareness about climate change amongst people, and effective governance mechanism; all of which in turn enhance community's capacities to sustainably manage their ecosystems and address the climate change issues effectively in future. The complexity of the projects makes it mandatory to follow progressive elaboration techniques for some of the activities.

a. Soil and Water Conservation

Soil and water conservation activities were carried out for 2,148 ha., and afforestation activities on 300 ha of land. Social fencing for protection of trees was initiated in 29 villages. We completed 409 loose boulder structures and a further 9 gabion structures.

b. Biodiversity Documentation and Conservation

Peoples' Biodiversity Register (PBR) were initiated in the 3 villages of Khadki Budruk, Malegaon Pathar, and Khandgedara to address the biodiversity concerns in WSD and other developmental activities; to create an awareness in the community about the importance of promoting, conserving and protecting local biodiversity; to keep a record of the local biodiversity through participatory mapping and recording of the biodiversity, and to capacitate the community to address the biodiversity concerns in the decisions taken by the local bodies.

Biodiversity Teams were formed in each village and trained in maintaining PBRs and addressing the biodiversity concerns of the village. Preliminary data was collected and entered into the registers.

A three day **Teachers Training Workshop** was organized for Zilla Parishad teachers with Bharati Vidyapeeth Institute of Environment Education and Research, Pune. 19 teachers from various project villages were imparted with concepts such as Climate Science, Biodiversity Conservation, impact of Climate Change on Biodiversity and its consequences, need and how-to document, protect and conserve biodiversity as an adaptation approach to CC. These learnings enabled teachers integrate these aspects in the day-t-day teaching in the classes and engage their students in appropriate action projects.

A two-day **Biodiversity festival** was organized in Shiswad village where more than 15,000 people participated in the festival from the entire cluster. About 17 stalls covering various aspects of climate science and adaptation to climate



● Biodiversity Festival, Shiswad village, Akole Taluka, Maharashtra ●

Balu Bhangre is a young man, who got introduced to WOTR and its ECO course for the village youth sometime back. There he gained exposure to issues of Biodiversity Conservation and Climate Change and soon got more and more involved in working for his village.

Most young people his age are now totally disconnected with traditional knowledge sources of the village- like knowledge of traditional agriculture, the jungle and traditional arts and crafts. But Balu has gone the extra mile and collected traditional seeds of food grains and other crops, wild vegetables and fruits and medicinal plants; many extra miles, in fact. Due of deforestation and most people turning to hybrid seeds and cash crops these plants have become very rare. At times he had to travel 40 km from the village and convince people from some really remote hamlets, who still practiced traditional agricultural practices, to give him a sample of their seeds! As Balu says, "People thought we were quite mad, at our age, to be collecting seeds like little children.

Balu is a meticulous collector and record keeper. He has a neat, detailed register with records of 300-350 different flora- fauna and also of the community's customs and way of life. There is also a herbarium of about 30 medicinal herbs- leaves pressed into a book, with the local names and uses of the plant. They have craft work done by local artisans, snake skins and local fish breeds. "We realised right at the beginning that there is no point only collecting samples. Social Awareness needs to be created. This is our attempt to reconnect with our roots. Climate Change is a reality and in order to cope with that, we need to preserve traditional knowledge", he says wisely.

change were established. Additionally more than 50 persons including several SHGs also set up stalls to show their traditional wares, and exchange and trade local goods. Local healers and artisans also set up their stalls. Local *Bharud* groups and groups of Adiwasis also performed during the festival. An animal fair of local breeds was also held. There were also extensive exhibits for various innovations and techniques in agriculture. Several experts held sessions with farmers and villagers on different aspects of agriculture with special emphasis on Climate Change. During the preparatory phase various trainings were imparted to youth groups on biodiversity, DRR concerns, Eco-tourism and climate change. More than 45 youth from different villages actively participated in preparation and conduct of the festival.

A similar Biodiversity Festival was celebrated in Partala village, Madhya Pradesh to show case all aspects of CCA. Over 200 persons visited the festival.

Clearly the impact was far-reaching: farmers, village elders, womens' SHGs, NGOs, school kids, rural youth and government officials visited from across the state. And clearly the message got through: that biodiversity is vital to survival; that biodiversity embraces everything.

A capacity building programme on Climate Change Science, DRR, Biodiversity, PBR, Eco-system Services, CASDAAT, LM3 was organized for Jabalpur RRC in Partala village in February. A 10 day comprehensive **workshop cum training for youth** of 8 project villages and Jabalpur WOTR staff was organized.

A **Biodiversity Special newsletter** was brought out and widely disseminated highlighting issues, activities, people's stories and the Festival.

c. Alternate and renewable energy

The objective of the intervention is to promote alternate and clean energy solutions in the villages, and meet individual and community level cooking and lighting needs. Solar home-lighting solutions, cooking with solar parabolic cookers, solar& wind hybrid systems, community biogas plants, etc. are being implemented.

Field evaluation and post implementation product assessment were carried out for all the Alternate Energy installations. Short case studies based on field assessments were prepared for publication.

Demonstrations and experiments with new models of cooking stoves and energy efficient *chullahs* were conducted with encouraging response from the community and SHGs.

WOTR is in continuous search for economically viable stove models for rural households. Bio char briquetting systems have also been field tested and are being evaluated for their livelihood potential.

Two research reports on the experiences of deploying AE were brought out:

- Hot water chullahs: findings from an assessment
- Deployment of parabolic community solar cookers – for mid-day-meal scheme in rural schools

A Renewable Energy Special newsletter was brought out to highlight the issues involved, activities and people's experiences.

Solar parabolic cookers were installed in 19 ZP schools

solar home lights were installed in 250 households,

31 street lights were put up in hamlets and remote locations,

2 household bio gas plants

A decentralized solar-wind hybrid system was implemented at Darewadi Training Center powering the entire electricity needs of the center.

“I am telling you from my own experience, anyone can learn how to use the solar cooker in 15 minutes. It’s that easy. I can get all my other work done while the solar cooker does the cooking. Now I even get some time to rest in the day.” - Sangita Kadale, Pimpaldari, Akoletaluka, Ahmednagar District- Anganwaadi worker

“Fuel was a big problem. We had to travel some distance for gas or kerosene and getting it was also uncertain because of the rationing system... or we had to go and bring wood from the forest. Now with the solar cooker, we don’t need to destroy the forest and also save on fuel costs. Food gets cooked in half the time.”- Sunita Gandhe, Pimpaldari, Ahmednagar District- Anganwaadi worker

“Before, we had to light up 2 stoves to finish the cooking sometimes. Now we can finish all the cooking in time, with just one headload of firewood and get ready hot water too. My kitchen is also almost smoke-free.” - Vimalbai Ubale, Kothajahagir, Jalna District

Several films have also been made in English and Marathi and are available on WOTR’s YouTube channel.

Parabolic Solar Cooker – Promo (Marathi; 3.16mins) <http://youtu.be/EKTaDhyHyVI>

Parabolic Solar Cooker – Demo (Marathi; 5.52mins) <http://youtu.be/F5KT2Vk2Hjk>

Hot Water Chullah (1.29mins) <http://youtu.be/wVMl8flxwGQ>

Greened to GO! (English; 4.08mins) <http://youtu.be/s3fuOwLmRkl>

d. Sustainable Adaptive Agriculture

The year 2011-12 saw a major focus on providing inputs on organic farming. 147 demonstrations of organic practices were taken up for farmers in all the 7 clusters. Farmers were trained on preparation and use of organic inputs like *amrutpani*, *dash parniarka*, *jiwamrut* and different composting and vermi-composting techniques.

Field demonstrations were implemented for rice, maize, sunflower, onion, tomato, wheat and groundnut in kharif, rabi and summer seasons. A package of 6 booklets on best practices has been prepared on various crops in 3 languages.

58 vermi-compost beds are in place covering all villages in CCA Project area. WOTR staff was also trained in handling the demonstration and control plots and maintaining records for the same.

Exposure visits specifically focused on agriculture activities were organized where farmers got inputs on how to control pest / disease within their field, low cost irrigation techniques, maintain soil health by changing crop rotation, etc. Along with this, farmers also got insights on how to undertake farming activities using scientific techniques.

Farmers Field Schools (FFS) have been initiated where farmers from several villages participate regularly. The effort is bring technological advances in organic and sustainable agricultural practices to the grassroots. It aims at achieving maximum yield at the least cost to farmers, while also keeping in mind the long term sustainability of their lands.

Through FFS, the community has been able to increase the productivity of their agricultural land, significantly reduce their expenditure on chemical fertilizers and increase income from agriculture. A key aspect of FFS is a move towards informed sustainability - stressing on organic fertilisers and soil health after soil testing with use of appropriate soil nutrients.

● Drip irrigation for water conservation ●



A Village Service Centres/Agri Equipment Banks is established in Khadki Khurd village of Akole cluster. This Centre provides farming equipment to farmers within nearby villages for use at nominal charges. The Village Development Committee maintains the equipment and its records.

Scientists from agriculture university (MPKV) visited CCA Project villages to understand project area specific details to plan future collaboration. During the visit, scientists resolved various queries raised by farmers in villages itself (details given in agro-meteorology note).

Following the successful implementation of System of Rice Intensification (SRI) (<http://youtu.be/sFsaN8V1WkY>) - a method of cultivating rice using scientific but sustainable methods – WOTR has gone on to introduce this modified method for other crops too. Crops like maize, vegetables, groundnut, sunflower etc. are productively grown by this method, called System of Crop Intensification (SCI). This is a move to promote low external inputs, increase land productivity, use of indigenous seeds, and reduce cost of cultivation. It involves promotion of agricultural demonstration plots, vermi-compost pits, training farmers on better practices of transplantation, crop geometry (spaced planting), soil and manure preparation, correct tillage operations, seed treatment, better sowing methods etc.

CropWAT study was conducted in Sarole Pathar village, Sangamner cluster on onion and wheat. CropWAT is software for the calculating water and irrigation requirements from existing or new climatic and crop data.

The main objective was to study different irrigation methods and fertilizer requirements and compare their water usage and respective yield achieved from them. Tensiometers were installed to measure the soil moisture at root depth which can help in deciding the frequency and extent of irrigation required.

Constraints/challenges faced and learnings from CropWAT study:

One of the biggest challenges was the mindset of farmers who have a simple equation in mind, more water + fertilizers=more production. They also tend to use all the water they can spare. Preliminary results and experience showed that, CropWAT would be more useful when water is really scarce and a farmer has to buy water and has access to reliable electricity. Practices for precision farming/water usage will then be easily adopted. Presently, CropWAT might be more useful for planning.

e. Localized Meteorological information

Telemetry transfer of Automated Weather Station (AWS) data:

Telemetry transfer from 5 AWS stations has been started. AWS data is transferred by GPRS modems installed at respective AWS. Currently 2 telemetry units are

installed in Akole cluster, 3 telemetry units are installed in Pathar II cluster and 1 unit in Pathar I cluster.

Collaboration with IMD:

WOTR and India Meteorology Department (IMD), Ministry of Earth Sciences (MoES) have entered into a collaboration wherein IMD will extend support by providing weather forecasts (using WRF model) for WOTR's project areas, technical guidance on installing and maintaining AWSs, train WOTR staff, and expertise in relation to agro-meteorology. At present, NWP Centre, IMD, New Delhi has started providing short range 3-day predictions for cluster villages of Sangamner and Akole talukas. At present, IMD is developing a generic methodology for automatic data validation and corrections. Once this methodology is finalized, data from all AWSs can be transmitted to IMD for making village level weather forecasts.

Collaboration with Agriculture University:

15 Agriculture Scientists, Heads of Departments, from Mahatma Phule Krishi Vidyapeeth (MPKV – Agriculture University) visited CCA project villages in September 2011. They responded to various questions farmers asked during the visit and invited them for one week residential **trainings on water management and irrigation techniques** organized by MPKV. More than 50 farmers availed this training at MPKV.

Agro-meteorology bulletin:

WOTR began providing and disseminating Crop Advisories for all major crops grown in the CCA project area from November 2011. The advisories are currently in the form of wall-paper and are pasted in 4-5 commonly frequented, public spaces in all the villages. The field staff discusses the advisory contents with farmers and collects feedback on previous advisory.

Software development:

Software modules are currently being developed for preparing crop calendars, detailed activities carried out at the farm, and for preparing agro-advisory bulletins.

The module to receive and store telemetry weather data is up and running and will eventually be linked to the WOTR website. Besides this, the module to update off-line data received from other AWS stations is also available for field staff to use. Module for analysis and reports generation is in beta release phase.

In addition to these, various other software have been developed for web-enabled muster payments (which have enabled wage payment to villages on a weekly basis rather than fortnightly, as previously), HR systems and web-enabled GIS tools for planning, data analysis, tracking and monitoring.

f. Disaster risk reduction (DRR)

Various trainings were held for the villages of Shiswad, Khadki Budruk and Khadki Khurd to create and foster a culture of Risk Reduction within the community. Over 65 youth and Wasundhara Sevaks (Earth Carers) were sensitized to basic concepts of Community Based Disaster Management (CBDM) and Risk Reduction, empowering them to understand various aspects of disaster at temporal and spatial scale. Calendars of daily and yearly activities of people were also discussed and put into practice.

g. Optimized use of water

A process for **mapping ground water** in CCA Project villages was initiated. System Dynamics model is being developed for understanding season-wise / annual water usage and agriculture practices that can be implemented by individual farmers / group of farmers.

In addition, Wasundhara Sevaks were trained in **water budgeting exercises**, which they carried out in their villages. These **Water Budgets** were presented in the Gram Sabhas of 15 villages.

h. Livelihoods

Information about existing livelihood opportunities in the villages have been collected and identified. Some of the potential livelihood activities are seed bank, fodder bank, rural tourism, plant nursery, goatry, backyard poultry, honey harvesting and renewable energy.

Some of the tools such as the LM3, CASDAAT have been tested for **screening livelihoods** and assessing their impacts (positive or negative) on the vulnerabilities of the communities involved. These tools will be released in 2012.

A study on **Value Chain Analysis** of 3 major agriculture produce in Akole and Sangamner blocks was carried out.

Three cluster level workshops were held with VDC members and community influencers for understanding the potential, resources and opportunities of livelihoods available in their clusters. Over 230 participants were actively involved in these discussions.

Specialized **skill trainings** for painting and fabrication were organized. The sessions focused on developing the skills to generate additional non-agricultural livelihoods for the participants and thus increasing their resilience in dealing with issues such as climate change.

i. Health Promotion

Women and children's health promotion forms an integral part of this project. The focus is on participatory **growth monitoring and nutrition** for the children between 0-5 years of age and anaemia detection and reduction. Wasundhara Sevikas are trained to assess growth (height and weight of children of 0-5 years), maintaining registers, filling up growth charts. Awareness building exercises are taken up regularly in concept, causes, signs and symptoms, treatment and prevention of anaemia, importance and demonstration of balanced diet using locally available food items, promotion of kitchen gardens, importance of hygiene and sanitation for prevention of various diseases such as vector and water borne diseases etc.. This cadre then takes the learnings and promotes healthy practices in the villages.

A total of 405 kitchen gardens were developed but approximately 105 could be sustained due to scarcity of water. Growth Monitoring of children is now an on-going activity and efforts are being made to involve the Gram Sabhas and create community ownership for this activity.

Camps for checking Haemoglobin were conducted in all the CCA project villages.

j. Social mobilization and gender and women's development

WOTR's Participatory development approach essentially is geared to garner people's involvement in any given process and also calls for gender inclusiveness.

Frequent contact sessions, corner meetings, *Kalapathak* (similar to street plays) were conducted in all the CCA villages to build awareness and mobilize communities to Climate Change Adaptation.

Samyukta Mahila Samitees formation and trainings continued during the year. In all 157 Self Help Groups with 2,114 members now are active in the village and trained to handle documentation of records, record keeping, and resolving issues/ conflicts. 50 training sessions and exposure visits were conducted during the course of the year for SHGs, SMS, and Wasundhara Sevikas. Over 1,800 women and men participated in these events.

k. Gender Inclusiveness and women's empowerment

A study to understand Women's development preferences, roles and constraints vis-a-vis Panchayati Raj Institutions and Climate Change was taken up. The study clearly brought out that women's role in PRI needed to be improved. In order to strengthen women's role in PRI, various other interventions and social development activities have been initiated and will continue in the next year. A study on food security of women is also in progress.

Another key insight for us was that while most of our interventions in women's empowerment are focussed on women, we also need to workshops for men. This would be essential in improving the gender sensitivity of the community as a whole and thus improve the social fabric that binds them. A framework for this has been prepared and activities based on this framework are expected to be implemented in the coming year.

I. Research Studies

The following research studies were completed:

1. A Study on traditional open field burning (*Raab*) practice prevailing in Akole block of Ahmednagar district of Maharashtra in the context of climate change and finding out perceived rationale of farmers for continuance of the practice.
2. Integrated domestic water management project: Process documentation and evaluation
3. Study on "test application of CROPWAT software under field conditions of semiarid Maharashtra" (study done in Sarole Pathar village).
4. Three years project completion report on Responsible Parenthood II submitted to Becker Cordes Foundation
5. Assessment of Health and Responsible Parenthood Programme from Villagers Perspective in 21 villages from Ahmednagar, Nasik and Aurangabad region
6. Outcome Evaluation of Haemoglobin and Growth Monitoring Interventions of WOTR
7. Study on womens' perception about their own hysterectomies conducted in 21 villages from Ahmednagar, Nasik and Aurangabad region.
8. Hot water chullahs: findings from an assessment
9. Deployment of parabolic community solar cookers – for mid-day-meal scheme in rural schools'
10. Checklist of flora and fauna in Akole
11. Impact Assessment Study of the Project "Poverty Reduction through Community Based Natural Resource Management for Livelihood Opportunities in Rural Areas".
12. Study of "Current Practices of Rabi Onion Cultivation in Sarole Pathar Village, Sangamner, Maharashtra".
13. Impact assessment study of Tyma watershed development project in Jharkhand for NABARD (Final report submitted and approved)
14. Impact Assessment study of Lolo watershed development project in Jharkhand for NABARD (Final report submitted and approved)
15. Insertion of Exogenous Development Measures on an Endogenous System: A Case Study of the Gangewadi Water Resources Management
16. The Carbon Climax: End of Hydrocarbon Legacy- a decade of metamorphosis and rapid change

17. Agriculture market price fluctuations, changing livestock systems and vulnerability connect- a case study of Mhaswandi watershed, Ahmednagar district, Maharashtra.
18. Gender dimension of climate change adaptation: an exploration into the perceptions of women and the community

Research studies/papers underway:

1. Position papers on eleven thematic areas³
2. Women Role in Panchayati Raj Institutions for Climate Change Adaptation
3. Revisiting impacts of completed watershed development (from data of IGWDP) in the context of climate change adaptation
4. Study on Effects of Climate Change on Existing Status of Food Security
5. Understanding the implications of government's farm pond strategy in climate change scenario in semi-arid regions in Maharashtra
6. Situation analysis of mental health care services in its relation to climate change
7. Changing cropping practices of *kharif* and *rabi* crops in Akole
8. Possible uses for lantana in Akole
9. Indications of climate change with regard to flora and fauna
10. Baseline Reports of CCA extension project: 10 villages in Maharashtra, 9 in Madhya Pradesh and 6 in Andhra Pradesh

Research study published

'Watershed development and Livestock rearing – Experiences and Learnings from the Watershed Organisation Trust , Maharashtra , India - in collaboration with South Asia Pro-Poor Livestock Policy Programme' (www.sapplpp.org)

m. Knowledge Management and Dissemination

In addition to the above research studies, 20 short films were produced as part of our efforts to increase audio-visual documentation and dissemination. Some of the key ones are:

Seminars and Workshops

Conducting of seminars / workshops

Four sponsored training events covering 92 participants and one international training event covering about 16 participants were conducted during the course of

³ 1. Climate Change, Eco-Systems and Watershed Development 2. Biodiversity and Adaptation to Climate Change 3. Food and Nutritional Security and Climate Change: Strategies for a Sustainable Future 4. Energy, Development and Climate Change: Striking a Balance 5. Livestock Systems, Vulnerability and Adaptation to Climate Change: Evidence from Grassroots 6. Localised Economies – A Response to Globalization and Climate Change 7. Revisiting Water and Watershed Approach to Adapt to Climate Change 8. Disaster Risk Reduction: A Response for Adaptation to Climate Change 9. Gendering Climate Change 10. Local Governance, Communities and Climate Change 11. Agriculture in Changing Climate Scenario.

| Title of film | Language | Duration | Youtube link |
|---------------------------------------|----------|----------|---|
| Parabolic Solar Cooker – Promo | Marathi | 3.16 | http://youtube/EKtaDhyHyVI |
| Parabolic Solar Cooker – Demo | Marathi | 5.52 | http://youtube/F5KT2Vv2Hjk |
| Hot Water chullha | - | 1.29 | http://youtube/wVMI8flxwGQ |
| Nature Restored...Lives Renewed | - | 3.24 | http://youtube/Qbd5cqAOXWE |
| Greened to GO | English | 4.08 | http://youtube/s3fuOwLmRkl |
| Adaptive Sustainable Agriculture –SRI | English | 7.06 | http://youtube/sFsaN8V1WkY |
| Does it ever rain at this time? | English | 4.27 | http://youtube/oix3rXQyHO4 |
| Sattechiwad – A village transformed | English | 5.38 | http://youtube/FKY0Lnsahil |
| Sattechiwadi – Prashan Sutala | E & M | 5.40 | http://youtube/iAWvmrMRhmU |
| Shiswad – Nisarg Utsav – Prep | - | 1.07 | http://youtube/CpxtGiw1aNU |
| Shiswad – Nisarg Utsav – Stalls | - | 1.25 | http://youtube/tJDQ4ERM_ml |
| Birds of Akole | - | 4.03 | http://youtube/MHCh1KPB09k |
| Sounds of Shiswad | Marathi | 12 min | http://youtube/8GO8fWhm0n4 |
| Climate Change: Challenges | English | | http://youtube/f83xVhXHRI4 |
| Climate Change: Solutions | English | | http://youtube/qNwDzg3thaE |

the year. This South-South knowledge exchange workshop had participants from Cuba, Madagascar and Nepal leading to some very useful exchanges of insights in carrying out natural resource management/watershed development across different agro-climatic zones.

n. Workshops and Trainings

With regard to staff training and capacity building, employees of the organization took part in 9 events covering topics such as Backyard poultry, Vulnerability Assessment, Kaizen methodology, software usage for muster entry, weather data handling and transformation training, and other technical training sessions.

Work with policy implications:

- Grass roots to policy conferences on Climate Change Adaptation conducted by WOTR in 2010, 2011, and 2012
- Participated in National Policy Dialogue on Climate Change organized by the Swaminathan Foundation
- Participated in Pre-Budget Consultations at the invitation of the Finance Minister of the Govt. of India
- Appointed Member of the Working Group on Minor Irrigation and Watershed Management for the formulation of the Twelfth Five Year Plan
- Member of group advising government of Maharashtra regarding formulating policy on farm ponds

- Member of the Expert Group set up by the Ministry of Rural Development, Govt. of India to design suitable convergence models for implementation of the National Rural Employment Guarantee Scheme (MGNREGS) on a watershed basis.

This has been a crucial phase for the project because it was in this year that we actually began grounding the project. We moved from the conceptualization and planning phase to implementation. There have been plenty of insights from even these early experiences of implementation. Some of these are being shared in a National Colloquium being organized in Pune on the 5th and 6th of June, 2012. The discussions from this Colloquium and comments of experts in the field who will be participating will be of great value for us in sharpening our strategies to make our initiative more successful.

Drinking Water and Sanitation

WOTR's involvement with Water has always focused on its scarcity and so it is with our Drinking Water projects. They focus on availability of good quality Water for all, drudgery reduction for women and children, addressing water contamination that leads to ill-health, etc. It also connects with the sanitation program as the sanitary conditions in a village impact water quality directly.

The projects include activities such as construction of new wells, repairs of existing drinking water schemes, laying pipelines, hand pump installations, tap connections, and trainings and capacity building of *Pani Samiti* (water committee).

Drinking Water provisioning has been carried out in **7 villages/hamlets**.

The **School Water and Sanitation Project**, carried out in **23 villages/66 schools**, addresses the core need as well the issues of drinking water, sanitation and hygiene in primary and the Pre-primary schools. Pre-primary and primary schools have been selected and the students of these schools are imbued with the messages of importance and practices of health and hygiene, which they in turn disseminate to their homes and communities. The school children are also taught to get involved in the activities like regular cleaning toilet units, watering the plants/trees and school garden, cleaning of the school campus etc. This has developed a sense of ownership among the students. The schools authorities have appreciated the coordinated efforts of WOTR, involving the schools, Gram Panchayat, Village Development Committees, Village Education Committees, parents and community as a whole.

The other activities conducted under the project were construction of water supply system to the school, drainage of waste water, solid waste management (vermi and



● Water Meters-Drinking Water & Sanitation Project - Chivadipada ●

organic composting), construction of sanitation blocks, water management and sanitation education, awareness campaigns and workshops for all the villages and schools / *anganwadis* (kindergartens), and cluster level workshops for school teachers and community members.

While our drinking water projects do intervene in distribution, water use and quality, they also simultaneously and primarily address the strengthening its availability at the source.

Under the Climate Change Adaptation lens,

addressing water scarcity is one of the major issues, more so going beyond its availability for agricultural use, contamination, and sanitation. One of the major efforts is to consciousness building about the visible and invisible, overt and non-overt links and connections between different issues, and addressing adaptive capacity of communities.

Impacts

- Since the entire village community, especially all the women from each family were actively involved in the drinking water and construction of toilet activities, there has been a great impact on the judicious use of water, drinking water purification at house level, good practices of health and hygiene, and cleanliness in the house and surroundings.
- The construction of water supply system and drainage of wastewater has made the schools self-sufficient. The stress and drudgery to fetch water for drinking purpose has been reduced. Provision of potable water has greatly reduced water borne diseases. The waste water is utilized for watering of plants/ gardening purpose.
- Due to construction of the vermi and organic composting pits, the cleanliness of the school campus and surroundings has improved. The school children collect waste, garbage, bio-mass from the surroundings and school campus as a part of their curriculum and deposit it in the vermi compost and organic composting units. The manure from these units is used for the school garden.
- The surplus manure was sold with a view to generate money for the school maintenance fund. The practical experience of recycling the waste biomass into the productive purpose has encouraged the students to replicate the same at their homes. Thus, this has created a learning platform to maintain clean surroundings and environment.
- Since the children use the toilets during the school timings, this has resulted to keep the surroundings clean. Intestinal infections are reduced and privacy afforded to girl students.
- The overall impact is that the students have learnt and developed hygienic habits and use the same at home too.

Water management & sanitation education: The structures created in projects are well operated and maintained by the school children and school authorities. The school children are promoting best sanitation practices at home too. The students have now become the ‘change agents’ through the awareness activities like explanation of posters, sensitization meetings etc.

- The concept of water budgeting is now well understood by the community and is successfully applied in their villages. The water budgeting chart is prepared by Jal Sevaks and displayed in the office of the VDC. It informs about the total water availability, water required for the domestic and drinking purpose including livestock, water required for crops, and available balance of the ground water.
- The coordination with the primary school teachers in all villages has helped increase their support. In four villages the school teacher with the support of the local Gram Panchayat and Village Education Committees have taken pro-active role to get the Govt. funds for the construction of school toilet units and urinals.
- The high water consuming crops such as sugarcane, banana, grapes etc. are not grown in the village. The ban on irrigation bore wells is strictly observed by the community, and no new bore wells are drilled in the village. The drip/sprinkler irrigation systems are installed by the farmers through their initiatives.

Renewable Energy

Based on our arguments in favour of reducing our reliance on mainstream energy, as well the caution with which we approach renewable energy technology, we, at WOTR, have taken a two-pronged stand that our priority would be (i) decentralized steps to meet energy needs, and (ii) to increase efficiencies of existing systems where possible.

We also believe that unless there is a significant immediate, tangible benefit for all the extra efforts or costs that the rural communities might have to incur, rural communities would (and rightly so) see no reason to make any change. Keeping this in mind, WOTR has taken up several interventions with different motivations and different pay-offs:

| Intervention | Motivation for people to adopt | Climate Change/Energy Impact |
|--|--|--|
| Biogas | Indoor air quality, Women’s health | GHG (methane) reduction |
| Hot Water Chulhas | Indoor air quality, Women’s health, Drudgery Reduction | Forest protection, GHG reduction |
| Solar Parabolics | Fuelwood savings leading to fewer trees being cut | Forest protection, GHG reduction |
| Solar homelights | Unreliable state electricity supply | Much more energy efficient;GHG reduction |
| Solar street lights | Safer and better quality of life | Lower carbon foot-print over life of product;GHG reduction |
| Watershed development, Sustainable Agricultural services | Sustainable eco-systems | Lower fertilizer usage, water and energy for irrigation, GHG reduction |

Yet, there are many cases where there is an urgent demand for improving efficiencies or introducing cleaner fuels. The motivation for these changes may not necessarily be related to CO₂ levels in the atmosphere. However, the climate change angle is definitely an added benefit. Approaching our project with this slightly altered lens has been our strategy and we call it “*adaptation through mitigation*”.

We also believe that long term adaptation is not possible without mitigation, but it is important to realize that along with basic developmental work, there is bound to be a short term increase in the community’s ecological footprint before longer term mitigation can happen. From the beginning our motivations besides ‘mitigation’, also had other immediate and tangible benefits for the rural people: Women’s health, reduced drudgery, fuelwood savings leading to fewer trees being cut, reliable supply – for homes, as well as for irrigation, improved quality of life, livelihoods, and decreased dependency.

WOTR has installed **19 Solar Parabolic Cookers** in rural schools, **547 home-lighting systems**, **31 street lighting systems**, and **476 Hot Water *chullahs*** in the year 2010-2011, has been also been involved in identifying issues, maintenance of these systems and in training and capacity building of local communities in maintaining these systems.

A **5KW Solar Wind Hybrid System** installed at Darewadi Training Center for electricity supply along with use of LEDs which have reduced the lighting load by up to 90%.

Women’s Empowerment

Drudgery Reduction and Addressing Basic Amenities, and improving Quality of Life

Women being an important stakeholder in any natural resource management project are one of WOTR’s priority focus areas. WOTR has a clear focus on and gives emphasis to building up their social capital and management capabilities. WOTR facilitates their empowerment by organising them into solidarity groups (SHGs), building capacity to address their and their children’s concerns through health services and providing personal care advisories, and literacy, numeracy and personality development training. It also actively engages men in assisting women to secure their entitlements as well as creating avenues for effective representation in the decision-making bodies of the village. Additionally, sister institutions of WOTR help them acquire livelihood and life skills. This is done by providing them with financial and business development support to start and successfully manage micro-enterprises, creating avenues of access to micro-insurance and providing efficient ‘green’ cooking and home lighting systems and provisioning drinking water and sanitation that address women’s concerns.

WOTR initiates and implements various development activities that not only enhance their economic status but also reduces drudgery and burden. The Samyukta Mahila Samiti (SMS), the federation of all SHGs at the village level, gives them a space and voice at the village level. The Village Development Committees (VDCs) have an active representation of women (40-45%).

In most of the project villages, the SMS utilize the women's development funds allotted to the project and use it for the women's development activities especially for group and individual income generation or livelihood activities through revolving funds. Similarly, in most of the project villages, financial support is provided for livelihood and income generation activities through VDCs under the separate revolving fund. In all villages the utilization and operation/ functioning of the activity is monitored by the VDC and SMS on regular basis.

Gender under Climate lens

Since the impacts of Climate Change are not the same and differs from developed to developing countries, from rich to poor, from man to woman, men and women face their social, economic and environmental reality differently. How they participate is also different and is closely related to age, socio-economic class, caste and culture. Men and women, because of their gender, face different situations that oblige them to acquire different capacities and knowledge while they also have different needs and interests. An approach that considers *only* the situation of women, thus we believe, will not bring about the desired transformation.

The disadvantages of women, who have historically had limited access to resources, restricted rights and little voice in decision-making, make them extremely vulnerable to climate change. Women are also vulnerable not because they are "naturally weaker," but because they face different conditions of vulnerability than men. They often live in conditions of social exclusion, with cultural limitations to mobility outside their immediate environment; have less access to information of early warning systems in times of disasters, and to forecasts of climate variability.

Under these conditions it is important to recognise that women are more vulnerable in climate change driven scenarios; understand and address gender-specific natural resource use pattern; identify women's particular skills and capacities that lend themselves to mitigation and adaptation; increase women's participation in decision making at all levels in climate change mitigation and adaptation.

Health & Nutrition

WOTR's interventions in Health have been in several areas:

1. Taking 2 indicators - Children's Growth and Haemoglobin levels - to understand the nutritional status of the community and communicate it to them so they can take the required measures

2. Setting up a cadre of Health workers and their capacity building to intervene in the community
3. Facilitating interventions that address Nutritional security in community at the family level as well as at individual levels with women and children
4. Awareness building on nutrition, sex education with adolescents
5. Connecting with local institutions - *Anganwadis* (for children under 5 years of age) and Primary Health Centre to carry out health interventions at an institutional level
6. Research & Studies that provide insights into health and nutrition issues

Highlights of annual achievements

The activity is being carried out in all on-going WOTR-SIED implemented watershed projects in Maharashtra and Madhya Pradesh.

The overall experience of this initiative has been a positive one and positive changes have taken place and results are there to see. An important impact is in the change in people's attitude as shown by a greater concern for health, especially women and children. Villagers, especially poor women, men and adolescents now have access to information on health issues and take special care of their families with respect to nutrition and hygiene. The people have a better understanding and have realized that health information and care is a lasting asset.

Software on "Growth Monitoring" has been developed based on the World Health Organization Growth Monitoring Charts.

Information, Education and Communication (IEC) material (books and posters) has been published in Marathi and written in simple text which can be easily understood by the villagers. This has been disseminated in the project villages and is used as training modules too. 13 booklets on different health issues (abortion, Family Planning, registration of birth and death child care, pre and post natal care, etc.) have been published. 10 educative posters (anaemia, use of toilets, personal hygiene, girl child, safe drinking water, and importance of kitchen gardens, cleanliness of surrounding environment, healthy baby and adolescents) have been made.

Taking a Climate perspective

Climate variability combined with economic volatility and depleting ecosystem are expected to put tremendous stresses on the community. WOTR's watershed interventions till date have addressed stabilizing and strengthening the ecosystem which communities live in. Under the climate lens WOTR seeks to understand the adaptive capacity of the communities to the combined overt and insidious stresses and intervene at the Household level where necessary. This has meant looking at food and nutrition security that looks at the food grown and eaten, in agriculture to

encourage growing and consumption of local foods and traditional, locally adapted hardy grains that are highly nutritive, and new vector-borne diseases that are likely to emerge due to rising temperatures.

WOTR has in the last year begun to involve itself in Mental Health - understanding the issues, stresses, and triggers and addressing these by going beyond mere psychiatric help to strengthening the social fabric and relationships by stabilising the resource base. The interventions promote key livelihoods that can decrease the pressures and stresses of agriculture dependent local economies.

Community Managed Rural Tourism

This venture has been initiated with an idea of making the regenerated watersheds a source of livelihoods for the people in the community. The once barren areas now regenerated become excellent and interesting places to visit – for enjoyment as well as developing an understanding of the rural areas and their issues. At the same time, it also becomes a means for local people to earn a livelihood by managing tourism while protecting and preserving their culture, tradition, and environment.

The uniqueness about this initiative is that this is a community driven enterprise and the tribal and other rural communities entirely take care of the hospitality.

WOTR imparts training to villagers to help them with development of skills and knowledge necessary for this purpose. The project has been implemented in two tribal villages - Purushwadi and Shiswad. All these villages are located amidst beautiful surroundings with hills, waterfalls and small ponds making the landscape attractive from the tourism point of view. The tourist, apart from feeling close to nature, also experiences the rural lifestyle, enjoys the simple homemade delicious food and 'feels at home' by the hospitality provided by village hosts. Clearly, a journey to these villages is not just a picnic, a holiday or a good time but is much more than that and is gaining a fresh perspective to life. The villages hosted 547 visitors during 2011-2012.

WOTR is promoting these initiatives through web and print media. Simultaneously we are contacting various educational institutions from Pune, Mumbai, Sangamner to arrange ecological exposure visits to our villages.

Knowledge Management

The Knowledge Management Unit functions through three subunits:

- (a) Information Technology (IT & GIS)
- (b) Research and studies, and
- (c) Documentation and Communications.

IT & GIS

During past decade, WOTR has developed various software systems for managing large scale projects like Management Information Systems, analysis of Socio-Economic data, Technical and Financial plans for Watershed Management and Muster Analysis. Software developed by WOTR is widely used by NGOs all over the state and outside Maharashtra.

WOTR has developed an Integrated Geographic Information Systems (GIS) based platform to meet new and upcoming demands for web-enabled information systems. This platform enables the user to update and analyse watershed related activity details, as well as put each household's details on the map. Having geo-referenced details published on web-enabled maps would help to bring in transparency and accountability at all levels. Following systems are currently in beta testing phase.

Weather Analysis System

The Weather Analysis System has two parts.

GSM Weather Software: Data from Automated Weather Stations (AWS) installed in several villages are received regularly. The weather data collected through this system is sent to Indian Metrological Department (IMD) through email. The idea is that IMD, will make locale-specific weather forecasts which are then used to make locale-specific Agro-advisories.

Weather Analysis System: This website is useful for analysing weather condition of village. The Weather website shows the day to day weather conditions collected by GSM Weather Software for a given period and is helpful for monitoring AWS stations and viewing average weather conditions for a given period in a variety of formats.

Crop Calendar System: Crop Calendar is a web-based system to maintain all details about a crop: growth stages, varieties, cropping practices, pests and diseases etc. As it is a web-application, it can be easily accessed from all the locations. The data received is used further in Agricultural Advisory Systems.

Agricultural Advisory System

This system is useful to field Agronomists and Agriculture Experts. It allows the field agronomist to enter farmer details, crop details, and the periodic details. With the help of this information and other details such as weather details, standard crop details, etc. the Agricultural Expert is then able to generate advisories based on weather, and individual crop and farmer details. The system integrates all the necessary information at one place so that it is more efficient for the Agricultural Expert to generate advisories. Various reports can be generated that are helpful for making decisions.

Electronic Muster and Measurement System

The Electronic Muster and Measurement system is a set of solutions to log Work Site Muster and progress as well as transfer data on the web. Real-time data can be transferred from work site to website using a Mobile device and the same data can be used for pay order generation. This GPS data is useful for map view representation. The user can generate various reports.

Geographic Information System for Planning and Monitoring

The Geographic Information System for Planning and Monitoring is a computer based information system capable of digitally representing and analysing geographic features and events. The main purpose of this software is to assemble, store, maintain and display data in a way that every object on the map's surface can be easily geo-referenced.

This system contains the net plan data (with/without geometry), socio-economic data, work done (muster) geometry data, impact monitoring data and plan Vs work done analysis.

1. HR-Admin system:

HR-Admin system is a web application designed for managing information about each employee working with WOTR and its sister organizations. The data is maintained centrally. The system is developed to manage all HR related information as well to provide various 'Search Results' to the User according to specific requirement. The system has major modules like master records maintenance, staff works report and analysis, calculating travel and dearness allowance (TADA), and



staff attendance and leave maintenance. Related reports could be generated by the HR department/ Unit In-charges using the system.

2. Annual Action Plan (AAPLA)

This software has been developed for WOTR's overall Annual Action Plan for the year. It can consolidate all the activities to be implemented in WOTR right from a particular village up to the organisation level. It also provides various reports at different levels viz. village, cluster, region and organization.

Communications & Outreach

Print: Regular publications of newsletters, reports of research studies, development of audio-visual material and training tools for watershed development and SHG promotion were carried out by this unit. WOTR's Annual Report for the year 2009-2010 has also been published.

Audio-visual Documentation: Audio-visual process documentation work of watershed projects in Rajasthan, Madhya Pradesh and Sangamner regions have been completed. Also national workshops, films and , interviews have been documented.

All these three units play a critical, reinforcing, advisory, educative and supportive role in the project.

The School of Sustainable Living and Livelihood (SSL)

Trainings and exposure visits for program partners, community based organizations (CBOs), students, NGOs, professionals and government agencies constitute a major component of the services offered by WOTR.

WOTR also conducts regular training programs and workshops for decision makers, implementers, farmers and interested organizations, in the fields of natural resources management, watershed development and self-help promotion. International groups also avail of these services. The training programs are amalgamated with extensive exposure visits to give the participants a first-hand field level experience, which help them understand the impacts and ground reality of a watershed program.

WOTR has a clear and strong mandate to build the capacities of villagers and developmental agencies (from all sectors) so that rapid up scaling and replication of successful models and interventions that sustainably impact poverty can take place.



● Solar & Wind hybrid system installed at Darewadi Learning Centre ●

As part of its mission to build up practice oriented capacities amongst development practitioners, WOTR provides support by way of on-site accompaniment and advisory services. Various consultancy assignments have been taken up during the year, which included evaluation missions and for taking up watershed related works for the forest departments, corporate houses, government departments and NGOs.

Trainings conducted during 2011-2012

| Types of trainings | No. of Trainings | No. of Participants |
|------------------------------|-------------------------|----------------------------|
| For Implementing Partners | 338 | 13,128 |
| National Level Programs | 76 | 2,106 |
| International Level Programs | 5 | 78 |
| Total | 419 | 15,312 |

Trainings for Rural Young Leaders

The SSSL has been developing a tier of Rural Young Leaders who have systemic understanding of climate change and prepare their communities to adapt to the same by managing and promoting local resources and building their capacities.

SSLL offers the following courses for the rural youths

Eco Community Organizers (ECO) course

The ECOs are equipped with comprehensive abilities to diagnose various issues, identify existing livelihoods and create new livelihoods, develop strategies to adapt to climate change, mobilize communities, provide feedback to SSSL to develop courses and processes to address the felt needs of the communities and bring them back to the communities. The students have gained a systemic understanding of climate change and now prepare their communities to adapt to the same by managing and promoting local resources and building their capacities.

Wasundhara Sevak Course

One of the major objectives of the course is to develop a cadre of trained human resources at community level to carry out all disaster management and mitigation initiatives. An innovative method is used in this program to train at least two persons as disaster management volunteers who, after being trained shall be supporting the community in development of the village disaster management plan.

Apart from the above courses, SSSL offers training for the Zilla Parishad Primary teachers and other NGOs, and government staffs.

Topics covered in the programs are:

1. Environment Education, Climate Change, Biodiversity and Climate Change, Disaster Risk Reduction and Climate Change, Water Budgeting, Participatory three Dimensional Modeling,
2. Local Money Multiplier (LM3)
3. Climate Adaptive Sustainable Development Assessment and Adjustment Tool (CASDAAT)
4. Atmadarshan

Networking and Linkages

Besides its network of partner NGOs for the implementation of watershed projects in the different states, WOTR is a founder member of International Rainwater Harvesting Alliance (IRHA) Geneva. WOTR is also the Key Player in organizing an informal network of stakeholders for fodder and livestock related issues in the district of Ahmednagar. WOTR is a core committee member of the NHWDP that consists of leading bankers, and representatives of all development departments of the Government of Maharashtra (GoM).

WOTR has been accredited CSO (Civil Society Organisation) observer status to the UNCCD (United Nations Convention to Combat Desertification) and will participate in the sessions of the Conference of Parties (COP) and the meetings of its Subsidiary Bodies.

Besides the above, Crispino Lobo, Managing Trustee of WOTR is the Member of the following Committees:

- Member of the Expert Group set up by the Ministry of Rural Development for implementation of NREGA on a watershed platform under the MGNREGA under the Chairmanship of the CEO, National Rainfed Areas Authority – NRAA.
- Member of the Study Group of the Maharashtra State Minorities Commission, Government of Maharashtra (since 2008).
- Member of the Maharashtra Chief Minister’s State Advisory Council on Watershed Development and is a member of the Executive Committee (since 2006).

Highlights

1. AWARDS: WOTR received the “**India Geospatial Excellence Award- 2012: Natural Resource Management-Water**” for “Use of GIS for NRM activity planning, implementation and monitoring” at the India Geospatial Forum 2012.
2. His Excellency Mr. Philippe Welte, Ambassador of Switzerland visited WOTR’s watershed project Sattechiwadi on 18 Oct 2011. Mr. Welte interacted with the villagers, village institutions; visited the watershed works, agro-meteorology station, anganwadi, child growth monitoring, SHGs and social and income generation activities implemented by SHGs and livelihood activities. Mr. Welte appreciated the work being done with the village communities and acknowledged that WOTR has a vital focus and impact related to adapting to climate change.
3. At the Darewadi Learning Centre, construction of new training hall is in progress and will be operationalized shortly. The new hall has a capacity to accommodate about 100 participants at a time and other organisations / institutions could also avail the centre for conducting their trainings too.
4. Expansion to Odisha: WOTR will soon expand its network to Odisha and will setup a regional office in Paralakhemundi town, Gajapati district. The ‘Orissa Tribal Empowerment and Livelihoods Programme Plus (OTELP Plus)’ will be implemented by WOTR in collaboration with OTELP. Under this initiative, WOTR would provide capacity-building support to the partner NGOs in project planning and management.
5. WOTR is appointed as State Resource Organisation (SRO) for Soil and Water Conservation under Integrated Management Programme (IWMP) and District Resource Organisation (DRO) for Ahmednagar district.
6. Climate Change Adaptation project has been extended to WOTR’s project in Andhra Pradesh and Madhya Pradesh.
7. The PPCP-NREGA program is initiated in Pratapgarh district of Rajasthan. The project is being implemented with the support of ITC and Government of Rajasthan.
8. Farmer Field Schools (FFS) : The ITC-WOTR MGNREGA has initiated this effort under the Wasundhara Integrated watershed Development project. This is an effort toward bringing new technological advances in organic and sustainable agricultural practices at the village level, right to farmers, homes. It aims at



● India Geospatial Excellence Award - 2012 Natural Resource Management-Water for Use of GIS for NRM activity planning, implementation and monitoring on February 7, 2012 at the India Geospatial Forum 2012 ●

achieving maximum yield at the least cost to farmers, while also keeping in mind the long term sustainability of their land.

9. Recently two simulation games – ‘Water Budgeting, and, Transformations: a rural community simulator’ were launched by WOTR. These games aim at helping grassroots communities understand the issues related resource management. The games were launched at the first ever Conference on the Systems Dynamics held on May 5-6, 2011 Pune, India by System Dynamics Society of India. The Society is an international, non-profit organisation devoted to encouraging the development and use of system dynamics and systems thinking around the world.
10. An innovative project titled ‘Saving the Girl Child’ under the health project would be initiated in 20 villages of Ahmednagar and Beed district of Maharashtra with the support of Rotary club of Hagen and Becker Cordes foundation, Germany.
11. VISHRAM – the Vidarbha Stress and Health Program (Mental Health Project): This is a community based mental health program to establish a sustainable rural mental health program to address psycho-social distress in agricultural communities in Vidarbha (Maharashtra) that have witnessed drought, economic distress and suicides. The project is being implemented in eight villages of Arvi block of Wardha district by WOTR in collaboration with Sangat RSO, Nagpur and financial support of Jamestji Tata Trust, Mumbai

What Visitors Say...

It was again an impressive visit to Darewadi. The work of WOTR still goes on and has been developed further to approaches of adaptation. We enjoyed also the great hospitality given by WOTR. Impressive visit. All the best for WOTR's future !

*KfW Mission, UweOhls,
Oskar von Maltzan*

Our visit to your centre and the surrounding project areas was a memorable experience. Efforts taken by the villagers is appreciable. We are overwhelmed seeing the project here. We have learnt from this project about its institutional setup and the techniques developed. An impressive achievement that has inspired all of us. The hospitality provided by WOTR is commendable and we are grateful to WOTR.

The Indo German Dev. Project Team, Tripura

More than six years have gone by, since our last visit- impressive changes !. Hermann Bacher's dream becomes slowly but steadily a reality – thanks to WOTR and the people living in semi-arid Maharashtra.

*Thanks to all who made our visit possible and pleasant.
Kurt Vogeles Helene Vogeles, Germany*

Excellent location for training in watershed management.

Kamal Kishore, Rainfed Livestock Network

It will remain as a memorable day for the participants of the ITEC-SCAAP programme on 'Strategies for Sustainable Agriculture and Rural Development'. The participants from 16 countries visited the village Darewadi on 28 Jan. 2012. They were amazed to see the attempts made by WOTR to make this area a self-sustained one. Let the mission of WOTR spread to different parts of India.

*Thank you very much indeed.
Pradip Kumar Nath, NIRD, Hyderabad*

Thank you all very much ! Keep up the 'watershed initiative' and bring smiles to millions of our fellow earthlings.

*Bhutanese team, UgyenLendup,
TsheringPhuntsho, JigmeTshering - RSPN Bhutan,
TsheringLhamo, TsheringDema, NEC Bhutan and ChukeyWangchu BIFEC, Bhutan*

It is a good experience for me to have followed this watershed approach. I would like to thank WOTR and wish that this sharing gives for all an opportunity to help the world facing the big change and development.

V. Ramanarjohany, CRS, Madagascar

Very pleased to visit Darewadi after 9 years. Heartening to see the sustainability and continuity of action and activities. Too often sustainability is used in development jargon without tangible and lasting effect. WOTR leads in sustainable practice.

*With respect and appreciation
Keith Goyden, Village Chatola, Uttarakhand*

Amazing quiet beautiful starry skies. Good food. Simulating company – what can one ask for more ?? ! Also the possibility to look at the real world and get a chance to refine your perceptions through others eyes and thoughts.

I look forward to coming back to see more progress in WOTR's work.

R. Roy, Chennai

Very impressed with the WOTR organization and the tremendous impact it has on the community. A model for others to follow. We are pleased to be working with such a noble organization to help it continue to be there.

Myrada Team, PRI Pilot Project-Aurad (B) District

I have visited many watershed program areas. But this is the one (WOTR) where I could see the real impact of watershed management on the rural poor. The ground water level has increased and has had positive impact on the community.

K. Nesaman IFS (p), IGNEA Dehradun

If deserts can bloom,
there is hope for humanity

Ludo Pinto, Edmonton, Alberta, Canada

It's amazing how saving water can have such a big impact on the ecosystem and people who live in it. Thanks for putting so much hard work into positive change here ! I really enjoyed my stay !

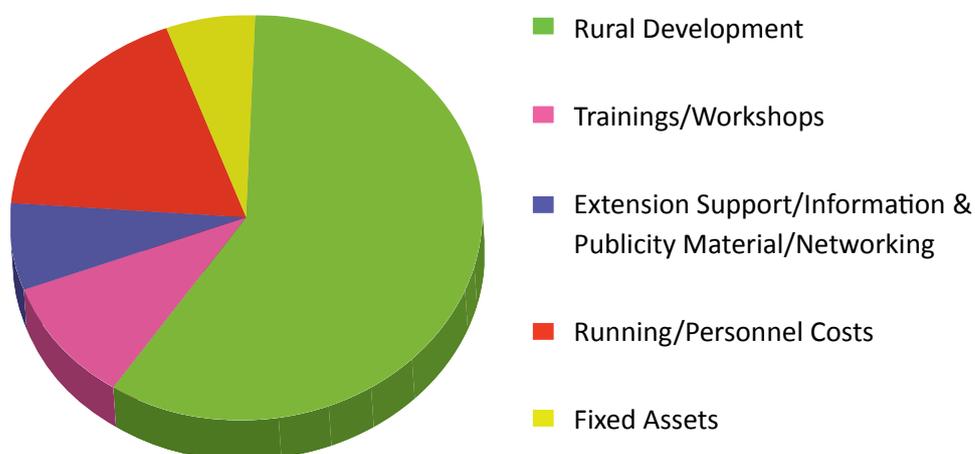
Sarah Pinto , Alberta, Canada

Financial Statement

Expenditure Profile:

| Sr. No. | Details | Rs. |
|---------|---|--------------------|
| A | Rural Development | 103,383,031 |
| B | Trainings / Workshops | 16,691,714 |
| C | Extension Support / Information & Publicity Material / Networking | 12,846,771 |
| D | Running/Personnel Costs | 31,271,907 |
| E | Fixed Assets | 10,485,668 |
| | TOTAL : | 174,679,092 |

Expenditure in %



Our Donors and Enablers

WOTR would like to place on record our gratitude for the unstinted support and partnership through the years. Our special thanks to Swiss Agency for Development Cooperation (SDC) for their partnership over the years, especially in our Climate Change Adaptation project and to National Bank for Agriculture and Rural Development (NABARD) for their partnership in Watershed Development.

Our many thanks to our other donors and partners who have supported us through the years:

1. Ammada Trust
2. Andheri Hilfe
3. Arghyam
4. Becker Cordes Stiftung
5. Bharati Vidyapeeth Institute of Environment Education and Research, BVIEER
6. Blue Planet Run
7. Central Research Institute for Dryland Agriculture, CRIDA
8. Concern India Foundation (CIF)
9. Dr. & Mrs. S H M Modi Hormus House Benevolence Trust Fund, Mumbai
10. Church Development Service (Evangelischer Entwicklungsdienst - EED)
11. Freundeskreis, Bonn
12. Government of Maharashtra
13. Government of Andhra Pradesh
14. German Development Bank (KfW)
15. German Ministry for Economic Cooperation (BMZ)
16. Integrated Watershed Management Programme, IWMP
17. India Meteorological Department, IMD
18. International Centre for Research on Agriculture and Forestry, ICRAF
19. International Crops Research Institute for the Semi-Arid Tropics, ICRISAT
20. International Fund for Agricultural Development (IFAD)
21. ITC Limited
22. Jamsethji Tata Trust
23. Karl Kübel Stiftung
24. Mahatma Phule Krishi Vidyapeeth, MPKV
25. National Bank for Agriculture and Rural Development (NABARD)
26. Revitalizing Rainfed Agriculture (RRA) Network
27. RBFS Foundation
28. The Rotary Club, Hagan
29. Sir Ratan Tata Trust (SRTT)
30. Swiss Agency for Development and Cooperation (SDC)
31. Swiss RE

And the many individuals who have supported us in so many ways.

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