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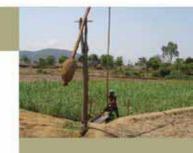
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### **Vision Statement**

AFPRO as a secular socio-technical development organization with Christian inspiration visualizes itself as working to enable the rural poor - including women and men belonging to small and marginal farmers and the landless, dalits, tribal people, fisher folk and unemployed youth - to move towards sustainable development, through an overall increase in their knowledge and skills in areas that directly affect their standard and quality of life. It visualizes itself as an organization that over the next decade will enable the marginalized rural groups to achieve enhanced socio-economic and personal status in society through appropriate technologies for the management of natural resources.

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## **Mission Statement**

AFPRO dedicates itself to its mission of alleviating rural poverty by promoting and working through voluntary organizations; with a focus on enabling the marginalized and weaker sections of rural society to participate in the process of rural development by strengthening their resource base and capabilities through improved knowledge and skills, both in the technical and socio-economic development areas.





## **Executive Director's Note**

Trust is built on core principles that stand the test of time and place. AFPRO believes in building such trust in program partnership and deliverables to village level communities and grassroots NGOs. Providing socio-technical services to the marginal sections of society requires vision and commitment to the grass roots - two strengths that AFPRO is built on. In the background of changing perspectives regarding development of marginalized areas seen in increased governmental and private sector perception of development inequalities, AFPRO finds that the real work has only just begun, especially in the rural panorama.

41 years ago AFPRO was initiated as one of at most a handful of agencies that believed specialist technical support was a must for the poor, suffering from unattended basic wants in rural areas. Today AFPRO reaffirms its commitment to the Vision it saw, but in a greater society that has become much more conscious of the necessity of such support and has grounded many interventions in the field. Thus for AFPRO the task is now cut out - create a greater corpus of engagement in terms of programs for natural resource management support and related capacity enhancement for the poor and marginalized. This knowledge enhancement will stabilize the grass roots as well as provide an entry point for 'inclusive growth', the vision of the Prime Minister of India, Dr. Manmohan Singh, in the 11th Five Year Plan.

With plenty of work left to do, long term sustainability of rural development projects still an open topic of debate, the driving force of voluntary sector engagement has to shift to rural communities based on the principles of communitarian demand and initiative. This metamorphism will in fact be the fulfillment of two essential objectives of Fund driven projects viz. participation and sustainability.

This is also what AFPRO's experiences in the sector reform program of the Government of Maharashtra, 'Jalswarajya', funded by the World Bank, has confirmed. The program, where AFPRO's involvement has concluded this year, would definitely be counted historically in the region for its intention and scale. The experience has provided tremendous organizational learning and revealed the immense potential of capacity building in program participation and adoption. Intense liaisoning efforts were also inadvertently part of the processes that involved coordinating with variety of government functionaries and elected representatives of village communities.

On these lines, AFPRO connected with the Backward Region Grant Fund (BRGF) of the Ministry of Panchayati Raj & the Planning Commission. AFPRO is serving as Technical Support Institution in 13 of the 250 districts being addressed. BRGF also focuses on participatory bottom-up demand based need assessment for preparation of government plans at various levels of Panchayats and Municipalities, which will eventually be suitably amalgamated as an untied resource support for purposes of the Eleventh Five Year Plan.

The V & A program is another that moves towards completion. The program adopts a quasi-scientific approach for identifying a socio-technical framework that would enable poor rural communities to adapt to adverse impacts of climate change with 'special focus on their vulnerabilities. The next step is advocating these experiences at policy levels for wider replication as a local response to climate change. AFPRO has gained immensely

Association with Area Development Programs of World Vision is providing AFPRO with greater exposure to social approaches in development. On the other hand, these ADPs vouch for the socio-economic impact of natural resource management interventions planned with AFPRO's support.

From the funding standpoint, the year gone has marked a crucial turning point for AFPRO as it was the final year of support from AFPRO's Donor Consortium that supported the Core Program. The group of 4 donor agencies, viz. EED - Germany, ICCO - The Netherlands, Misereor - Germany, and SDC - Switzerland, has been providing fund support to the Core Program for many years.

Since the last 7 years, AFPRO has been preparing for phasing out of Donor support through gradually initiated learning processes aimed at attaining organizational self-reliance. These steps were taken based on recommendations emerging from the AFPRO Evaluation Report 2001, and the Strategic Orientation and Planning Process (SOPP). In order to further this strategy, AFPRO's Core Program, has been expanded to include the element of non- profit service charges to project Funding Agencies (other than the Donor Consortium).

Thus, AFPRO now views the development sector with a fresh and loftier pair of eyes - a vision seen on a flight on AFPRO's own wings of program mobilization abilities within the perspective of a nurtured dream i.e. self-reliant services to the marginalized.

In fact, self-reliance could be the answer for the voluntary sector in India, which will help it gear its accountability and delivery. Of course, such self-reliance approaches would necessarily need to cover costs towards both the human and institutional aspects of organizations. Yet there is still need for donors to support extension of socio-technical support to communities living in remote and unreached areas of the country.

In this new partnership paradigm, professionalism will continue to be critical for truly being effective. AFPRO is convinced that there exists a huge vacuum in livelihood enhancement services for marginalized sections of humanity, and that needs to be addressed diligently and scientifically, as juxtaposed to the mainstream that can take care of itself under the deluge of opportunities available within the ambit of the private and public sectors.

AFPRO puts on record its appreciation for each of the members of AFPRO's Donor Consortium viz. EED, ICCO, Misereor and SDC. The partnership has been a huge development effort in terms of program outreach. As an organization, AFPRO's has grown many times more due to learnings, insights, guidance and thrust provided by the pannership. These have become part of organizational practice and form the fundamentals of strategic planning in APFRO.

We express our gratitude to the AFPRO Governing Body which continues to enlighten our sense of purpose. Their value and ethic guide the organization towards accomplishing of its eventual objectives.

A word of thankfulness to our partners in development efforts, funding organizations, government departments, and implementing NGOs - our common vision inspires and provokes us to action mat will serve tile underprivileged. We need build our perseverance and dedicated enthusiasm to attain these ends.

With a profound sense of affection generated from the organizational memory of love, respect and support we continue to receive from the communities we have worked for, we appreciate and thank them, and assure them of our common solidarity.

#### D K Manavalan

**Executive Director** 





# **Water and Sanitation**

# The Jalswarajya Project - Rural Water Supply & Sanitation Project, Maharashtra

State	Maharashtra
	Satara District in Western Maharashtra
Location	Osmanabad District in Marathwada Region
	Yavatmal in Vidarbha Region
Program Promotion and Resource Support	Government of Maharashtra
Implementing Agency	39 NGOs (Program Support Organizations)

AFPRO Field Unit I, Ahmednagar has successfully completed its involvement in the Government of Maharashtra program on reform of the Rural Water Supply and Sanitation sector. The program, titled "Jalswarajya" has been funded by the World Bank. The main objective of the program was to increase the access of rural communities to improved and sustainable drinking water and sanitation services; to institutionalize decentralization of rural water supply and sanitation service delivery to rural local governments and communities.

The program processes were planned against certain key principles – first: subsidiarity which meant that services be delivered by the lowest appropriate level; second: the adoption of demand driven and participatory approaches; third: a focus on village level capacity building; fourth: an integrated approach to water supply, sanitation and hygiene promotion; fifth: partial capital cost recovery and full operations and maintenance financing by users, and sixth: promotion of groundwater conservation and rainwater harvesting.

AFPRO had two roles in this program – a Capacity Building Consortium for 3 districts namely Satara, Osmanabad and Yavatmal as a district level facilitating agency for capacity building, and apart from this AFPRO had to develop model villages in each of the three districts. Another associated project under the program was the "Aquifer Management Pilot Project" in Jalgaon district.



Working in a multi-stakeholder environment was a challenging task but hard work, professional approach and concerted efforts have enabled the successful completion of the task. AFPRO positioned itself according to demonstrated trend and perceived futuristic need of water supply and sanitation sector for the State.

The Jalswarajya program aimed to take decentralization processes up to the lowest level of Panchayati Raj Institutions, so that Gram Panchayats (GPs) could plan, design, construct and manage their own water and sanitation facilities based on an inclusive approach. The reforms adopted under the sector in the last three years have shown encouraging results in terms of improving the access of water and sanitation facilities and community capacity building.

In all, as Capacity Building Consortium, AFPRO reached out to 437 villages with the help of 39 NGOs (Support Organizations) in the three districts through 224 Capacity Building events.

Table 1 1 A few statistics regarding AFPRO's support to the Jalswarajya Program

Sr. No	District	No. of Support	No. of Villages	Start of	No. Of trainings / workshops conducted	Completion of interventions
1	Satara	13	153	June 2004	74	May 2007
2	Osmanabad	12	145	Sept. 2004	71	Aug 2007
3	Yavatmal	14	139	March 2005	79	February 2008
	Total	39	437		224	March 2008

As a Capacity Building Consortium AFPRO was called upon to work with different stakeholders. The roles defined by the program are elaborated below:

#### **District level**

- Develop and implement a Capacity Building Plan for District and Block level stakeholders.
- Assist District Team in the accreditation of Support Organizations (SOs)
- Develop and Implement Capacity Building Plan for SOs

#### **Village level**

- Help district/SOs to develop Capacity Building Plan for individual project villages
- Assist District Team and SOs in identification and empanelment of Para-professionals and in developing their capacity building Plan
- Develop 3 "model villages" in each district

#### Other roles expected

- Develop and implement Capacity Building Strategy for Scaling-up activities (for the second and subsequent batches of villages)
- Assist district teams to design appropriate monitoring, learning and documentation system at different levels for monitoring project progress, process quality and impact;
- Document best practices, lessons, effective methodologies and tools used for Capacity Building activities

Training workshops were organized for district teams, elected representatives, support organizations, block level functionaries, technical service providers and village level stakeholders. Training need assessments were carried out before organizing any capacity building program. The training methodology included in-house training with more focus on participatory approaches and field level exercises. The training events can be divided into three major categories



- Project Orientation
- Building Skills & Knowledge
- Strengthening Systems & Processes

While AFPRO was called upon to develop 3 model villages in each of the 3 districts, by the end of the program AFPRO was able to complete model projects of water supply schemes in 5 villages, across the three districts with at least one in each. In these villages, the community demonstrated an ability for collective action in planning and execution of the water supply scheme and in achieving total sanitation coverage. Similar activities in 4 remaining villages assigned to AFPRO did not progress well due to different socio-political reasons.

Directly empowering the Gram Panchayats enables a completely decentralized approach to demand driven development. The 73rd constitutional amendment has empowered the Gram Panchayats in Planning and implementation of village development program. For managing the drinking water and sanitation program, village water supply and sanitation committee are constituted. It is a sub committee of GP. AFPRO has provided guidance to the support organizations to design training modules of individual project villages in such a way that village level committees can be empowered to plan, implement and manage water supply schemes. AFPRO has also assisted SOs in ensuring regular Gram Sabha, and participation of community for decision making.

Several steps were taken to ensure transparency at village level. AFPRO provided handholding support to SOs and village level accountant in establishing better financial management and record keeping systems at the village level. Support organization ensured that all financial transactions were discussed and approved by the Gram Sabha, and appropriate records maintained. Details of financial transactions were displayed publicly, and each village had an external audit of financial transactions

AFPRO designed and conducted detailed training modules for Technical Support





Providers (Engineers) and Support Organizations on the technical, quality control and supervision aspects of water supply scheme.

Systematic capacity building input was given to the village level committees and paraprofessionals on water quality aspects, disinfection practices and source strengthening measures. The concept of water budgeting was also introduced to ensure better water management at the village level

Efforts were made to ensure the participation of women in decision making process and conducting separate women Gram Sabhas. AFPRO had designed and promoted specific strategy to develop the skill of women and to capacitate them for setting up of small scale entrepreneurship activities.

AFPRO's inputs have led to the establishment of an improved monitoring and review system at the district level to assess the performance of various stakeholders under the project. Quarterly monitoring activities of SOs were planned which has helped to establish backward and forward linkages between the physical and financial progress of the project both at village and district level.

The program design is ideal for implementing community-driven water supply and sanitation projects. However a project cycle of 18 months was not sufficient in certain cases due to socio-political and economic reasons, and also due to the fact that the entire program activity was divided into a number of subprojects.

Care and patience needs to be maintained so as to allow various project related processes to be completed in a manner so as to ensure better results. The creation of physical infrastructure should never be the sole criteria to gauge project progress.

An important aspect in such programs is that selection of villages should be done with due prudence. The villages where communities do not genuinely exhibit a need for water, are difficult to mobilize throughout the processes of planning and implementation. In addition, the selection of engineers as technical service providers needs to be undertaken with due diligence, ensuring quality and capacity of the candidates.

#### **Water Balance Study in Bangalore Rural District**

State	Karnataka
Location	5 Gram Panchayats in Doddaballapur Taluk of the Bangalore Rural District
Resource Support	USAID
Program Coordination	PA Consulting

The agriculture sector in India is dependent upon groundwater utilization that is an energy-intensive operation. An example is the tendency of farmers to pump water when power is available, due to uncertainty of its availability rather than when crops actually need water. This irrational over extraction of water leads to lowered water tables with farmers using higher capacity pumps to lift water from even deeper levels.

USAID is supporting a program titled "Water & Energy Nexus Activity, Phase II", a four year technical assistance program in India. This is a special program based on the understanding that groundwater extraction has impact not just on the water sector, but energy as well.

The project "Water Balance Study in Bangalore Rural District, Karnataka, has been initiated by PA Consulting, who are implementing the project on behalf of the USAID. AFPRO is partner of the project for conducting the study in twenty seven revenue villages falling under the five Gram Panchayats in Doddaballapur Taluk of the Bangalore Rural District in Karnataka (India).

The major objectives of the water balance analysis study are to estimate

- The quantities of water available in micro-watersheds falling within the project area after considering the losses from evaporation, runoff and other wastage
- The use of water for irrigation from ground water and to what extent the crops are over/under irrigated
- Potential for ground water recharging in each micro-watershed in the project area
- Potential for savings in water use in the project area.

The project was initiated during the year of reporting. AFPRO Field Unit II, Bangalore carried out initial activities such a preliminary visit, and discussions for planning and generation of information.

#### Socio-economic Study for Integrated Water Resource Management in Wakal River Basin

Last year, AFPRO Field Unit III, Udaipur was called upon by World Vision ADP Navprabhat to undertake a socio-economic study of the Wakal River Basin in Rajasthan. The Basin is one of the three selected by Global Water for Sustainability Program (GLOWS), a consortium sponsored by USAID, for study of water resources and to find out site-based activities that seek to fosters sustainability through integrated water resources management (IWRM). The three river basins, the other two being Pastaza in Peru, and Mara in Kenya/Tanzania represent critical areas of the three continents Asia, South America and Africa. GLOWS is attempting to identify an approach of IWRM that integrates technical aspects with economic, organizational, and political frameworks.

The GLOWS program, launched in early 2005 in India, works on the ground to implement improved practices, build local capacity through multi level training, and share lessons learnt and advancements in IWRM with local and global partners.

State	Rajasthan
Location	Wakal River Basin
Collaborating Agency	ADP Navprabhat, World Vision
Program Promoting Agency	Global Water for Sustainability Program - GLOWS, a consortium sponsored by the U.S. Agency for International Development (USAID).

The objectives of the study were threefold – to understand community level socio-economic conditions in the Wakal River Basin, study the availability, accessibility, use and management of existing water resources, and study the role of women in water resource management and feasibility of formation of co-gender Water User's Association in the river basin.

The Basin is inhabited by 313 villages having 49110 households, and 71% of the population belongs to tribal communities. Water scarcity is a major problem in the basin. For drinking water people depend on open wells and handpumps; however as open wells do not have parapets, they are easily contaminated by direct intrusion of run-offs from agricultural fields.

Regarding agriculture, the region is characterized by lack of knowledge on improved farming and water management (irrigation) practices. Lack of irrigation facilities mean that farmers depend on erratic rainfall, which together with high input costs and other burdening costs add to make agriculture an unproductive and unremunerative option for the 84% local populace who are dependant on it for livelihoods. Lack of





knowledge in livestock management and health care worsen the scenario. Local employment options thus being limited, a large number of villagers migrate to urban areas, and end up working as unskilled labourers.

Further, lack of educational facilities and health care is a severe problem for the inhabitants. Child marriages are very common resulting in big families and poor health of mothers and children.

A combination of technical approaches along with appropriate capacity building inputs for villagers has been recommended for integrated water resource management and development of livelihood options. For improving agricultural opportunities, soil and water conservation measures, water harvesting structures, revival of traditional irrigation systems, seed banks for preservation of locally suitable varieties are some suggested options, together with capacity building of farmers on improved agricultural techniques and organic farming practices. Livestock options include capacity building on livestock management, health care, fodder preservation, and introduction of improved varieties. These need to be substantiated by development of open wells and other drinking water sources so as to prevent contamination of any kind.

Additionally, villagers intending to migrate need to be provided with skill development opportunities to qualify for urban jobs. Such training could be provided in masonry, carpentry, plumbing, electrical works, mechanics, and other job specific avenues. In addition other income generation activities could be promoted within the Basin area itself. Health and knowledge issues have to be addressed through need specific awareness and capacity building events.

Lastly, village level institutions will help in ensuring dynamism and continuity with regard to initiated development activities. Such institutions must be developed and helped in building linkages with government departments, research and academic agencies, and other relevant civil society and private institutions.

#### Water Pumping & Purification System (Water PPS)

State	Andhra Pradesh
Location	Coastal sites in Krishna, Vishakhapatnam and
	Vizianagaram Districts
Collaborating Agency	Solar Fabric, Germany

A new model of water purification system was tested in three villages of Andhra Pradesh. The novelty in this apparatus was the use of solar energy for pumping service water and supply of filtered water using mechanical micro-filtration processes. The project was funded by BMU (Federal Ministry for the Environment Nature Conservation and Nuclear Safety Dept, Germany) as pilot study. The system has been designed by Solar Fabrik AG, Germany.

The goal of the project was to facilitate provision of safe and hygienic drinking water to minimize the occurrence of water borne diseases in villages where bacteriological contamination of water is the main problem. Other objectives included analyzing the instrument's performance and reliability on a daily basis, identifying possible innovations, use of local materials to reduce the cost of the instrument, among others.

The project sites were selected in the coastal area of Andhra Pradesh, India where the water is bacteriologically contaminated. In order to identify the most deserving villages, based on NGO perceptions AFPRO Field Unit VI, Hyderabad conducted socio-technical feasibility study, and initial interaction and discussions to solicit willingness of village communities. The three villages finalized were Kothuru Tadepalli, Krishna District, G. Karakavalasa in Vizianagaram District, and Telugulapalem in Vishakhapatnam District. All the project



The Water PPS at Village G. Karakavalasa, Vizianagaram District

sites have already more often been affected by cyclones, floods and other natural calamities in the past.

The criteria for site selection included a population limited to 150-300 belonging to tribal or minority communities, having bacteriologically contaminated drinking water, as well as some reported incidents of water borne diseases, and willing to try out the system. In addition, facilities should be such that the daily demand of water should not be affected and there should be some alternate source of water in case of emergency.

AFPRO extended socio-technical and facilitation support for the entire project right from identification of local NGOs and villages, technical feasibility surveys, planning, capacity building of the community, building linkages with the relevant state government departments and coordination of the stakeholders.

AFPRO played a vital role in strengthening the partner NGO and in creating community awareness and motivating the community towards the system operation and maintenance. Gram Sabhas (village meetings) were conducted on regular basis during implementation of the project and decisions were taken based on the people's views. AFPRO also developed linkages with the local governmental offices and Rural Water Supply Departments (RWSD) for necessary permissions to implement the system and repair of existing bore wells to ensure that daily demands of water were not affected.

For detailed information about the water quality of each site before installation of Water PPS, a few field level physical, chemical and bacteriological tests were conducted for eg. PH, TDS & tests for bacteriological contamination using  $\rm H_2S$  vial. Water quality analysis was repeated in RWSDLaboratory to find the feasibility of the system before and at the time of installation. It was observed that in all the three bore well water was highly bacteriologically contaminated but chemically within the desirable limit.

Each NGO played an important role in creating community level awareness,





management of the system and recording of data, supervision of systems operation and cleaning of filters. In each case either a single village or a group was trained to operate the system and clean filters regularly. Water quality analysis was conducted on a monthly basis.

In village G. Karakavalasa, Vizianagaram District, Water Quality Analysis was carried out regularly and the results have been found to be good. Water samples from both taps, one carrying service water and the other filtered water, were tested.

In Kothuru Tadepalli, Vijaywada, the system was first installed on an existing bore well, one of two in the village. The main source of drinking water was a dug well about 200m away from the main habitation, was unaffected. The system worked well supplying good output that was appreciated by villagers. Midway, an electrical complication slowed the discharge of water. However this was rectified, restoring the discharge rate. Later, due to experienced benefits, the community requested shifting the Water PPS to the site of the dug well as the water tasted better, and the source was also perennial; the Gram Panchayat expressed their willingness to bear the cost of shifting and installing the system at the new site. The Water PPS has subsequently been shifted to the new site and is functioning well. The Gram Panchayat has expressed its willingness to finance and operate the system using Panchayat funds after completion project support.

The WATERpps in G. Karakavalasa of Vizianagaram District is running smoothly. The community voluntarily undertook construction of a wooden fencing for the system, as well as a separate cement platform for water collection at a safe distance so as to ensure sanitary conditions at the site. In each village, the community is making a small monthly contribution for maintenance of the system after it has been handed over to them.

The villagers are very happy about the project as before installation of the system, the water they used had an oily odour and turbidity. Many womenfolk reflected that the taste of food cooked using this water is much better than earlier and lasts for two days, saving them both labor and unnecessary wastage. It is noteworthy is that the villagers have established 'Chalivendram' i.e. free drinking water for the public, at the local bus stop. The average daily discharge from the system as it was observed from the data collected on daily basis was found to be about 644 litres.

The project has achieved its goal of providing filtered drinking water from bacteriological contaminated sources through micro filtration while using only solar energy for electrical power to pump service water. Villagers have reflected that incidences of health problems like knee pain, headache, fever and cough have reduced remarkably. The labor involved, especially for womenfolk, for drawing water using hand pumps or out of the dug wells has been far reduced. While the instrument's performance and reliability has been tested and proved, maintanence of systems by local communities too is affordable.

#### **Water and Democracy in South Asia**

State	Maharashtra
Location	Village Pahbal in Yavatmal District
Collaborating Agency	EED, Germany

This program was conceptualized at the first South Asia Partner Consultation on Water Issues conducted by EED, Germany in 2006 at Hyderabad. The program intended to facilitate capacity building, networking, lobbying and advocacy and exchange of experiences.

This concept is being addressed through four sub-components, and each partner of the consultation mentioned above was assigned specific responsibilities. These sub-components are (a) the development of a data and media base for future campaigns, (b) action on participatory people's monitoring of water and groundwater governance, (c)

capacity building on water monitoring and water policies and (d) and networking, campaigning, lobbying and advocacy.

AFPRO was working on the second and third themes, namely action on participatory people's monitoring of water and groundwater governance, the other, capacity building on water monitoring and water policies.

The specific objectives for these themes focus around strengthening of community capacities for effective understanding regarding water. These included developing simplified community monitoring tools for proper understanding of local water resource availability, capacitation of communities with necessary data, skills and knowledge to manage groundwater resources available in a sustainable manner and demystification of hydrological science through farmer involvement in data collection regarding groundwater and its utilization.

Pahbal in Yavatmal District, a tribal village has been identified for testing of community based monitoring tools. For these purposes, an analysis of primary and secondary data, inputs from the community during mobilization acitivities, and information derived from situational analysis was carried out. This was followed by setting up of observation wells, rain gauge meters, and water level indicators.

In addition Village Pani Samiti (Water Association) has been formed. Special formats have been developed for periodical monitoring of observation wells and include segments for water quality analysis. A water budgeting exercise has also been carried out.

Through systematic capacity building of local institutions on various aspects of basic hydrological science, the project aims to encourage and strengthen village level initiatives for groundwater management by taking steps that will lead to village level regulation and management of water supply from available sources. The communities will benefit in terms village level institutions and learn techniques such as water saving and improved agricultural practices.

#### **Addressing Water Quality Issues in Chhattisgarh**

State	Chhattisgarh
Location	District Rajnandgaon
Collaborating Agency	UNICEF Raipur

Chhattisgarh has a large rural population dependant on water supplies whose quality for consumption, as field realities suggest is uncertain. Diarrhea, jaundice and typhoid are among the more common illnesses that occur in Chhattisgarh. Sometimes in the monsoon season they take on epidemic proportions. Reports also speak of malaria, typhoid, tuberculosis, jaundice and diarrhea, which have been listed as common illnesses. The Bastar District Report points out that 71.3 percent of the people feel that unavailability of clean drinking water is one of the main causes of illness. Iron contamination that causes rusting in Hand pumps is prevalent in large areas of the state and is a big challenge faced by the state.

Provoked by this fact, UNICEF-Raipur and PHED, Rajnandgaon initiated a project for water quality analysis in Rajnandgaon district, with AFPRO Task Force, Raipur providing socio-technical support. Titled "Multiple District Assessment of Water Quality Safety (M-DAWS)", the project had three main objectives — to collect data regarding quality of water supplies from sources apparently considered to be safe sources of water, together with identifying capacity building requirements needed to address the issue, aiming at the protection of water supplies.

The project duration was for 11 months: from November 2006 to September 2007,





and has been completed. Based on the Cluster based sampling methodology, 400 water sources were tested from Hand Pumps (HP), Piped Water Supply (PWS) and Open/Protected Wells in four broad zones covering nine blocks of Rajnandgaon district. The water samples were tested on various parameters including Physical (Turbidity, PH, Conductivity, TDS), Chemical (Fluoride, Iron, Nitrate and Arsenic) and Bacteriological (Thermo Tolerant Coliform, Faecal Streptococci (FS) and H<sub>2</sub>S) parameters of drinking water safety. Another component of the project was Sanitary Surveillance Scores (SSS) that reflected on all conditions, applications and practices in the water supply system which could would cause health hazard for water users.

Observations, in general are that hand pump sources are not being maintained properly, from both sanitary and maintenance perspectives. By scientific standards, these pose a high health risk. For instance, about 250 of the sources tested are found to be contaminated by iron.

Cleaning utensils and bathing near water sources, open defecation near hand pumps on village outskirts, hazardous proximity of village drainage lines near hand pumps, stagnation of waste/drain water around many sources, absence of fencing to prevent contamination by animals, have been commonly observed. In addition structures themselves need repair and maintenance. Taps are absent from cisterns and standposts of the PWS which results in a huge loss of water. Installed Iron Removal Plants are found defunct primarily due to lack of awareness & maintainance.

A common feature is that communities themselves, above, have not reported any water related diseases. The reason obviously being lack of awareness regarding the linkage between hygiene, sanitation and health hazards.

People have a tendency to prefer hand pumps even if good dug wells exist in the vicinity, and hence do not maintain these wells. However, in times of scarcity, these dug wells play a very important role.

The solution lies in the provision of drinking water, hand pumps in the villages and regular bleaching of the existing water sources. Bacteriological contamination of dug wells and private water sources needs to be effectively dealt with.

However, some good examples were also noted, where drainage water was being used for recharging measures and kitchen gardening. An interesting observation was that waste water disposal systems were found well managed by communities of tribal dominated areas like Chowki, Mohala & Manpur blocks rather than the six remaining blocks.

The above project has led to two more similar projects being taken up under the Unicef banner. One, described in the next section is regarding water quality monitoring and surveillance in four relief camps of Konta Block, Dantewada District. The second is a short term assignment on support in facilitation and completion of M-DAWS project at Koraput District, Orissa in collaboration with UNICEF-Bhubaneshwar and Rural Drinking Water Supply & Sanitation Mission, Koraput District

#### **Water Quality Monitoring and Surveillance in Relief Camps**

State	Chhattisgarh
Location	Konta Block, District Dantewada
Collaborating Agency	UNICEF Raipur

As an immediate outcome of the M-DAWS project mentioned earlier, UNICEF Raipur initiated an excercise on testing water quality and sanitary surveillance in four relief camps of Dantewada district in Chhattisgarh. PHED, Dantewada.

AFPRO Task Force, Raipur and Vanvasi Chetna Ashram (VCA - the local NGO), are



A view of one of the relief camps in Dantewada District, Chhattisgarh

partners in this project called "Water Quality Monitoring & Surveillance in Relief Camps of Konta Block, Dantewada District, Chhattisgarh." Hand pumps are the main source of drinking water in these camps.

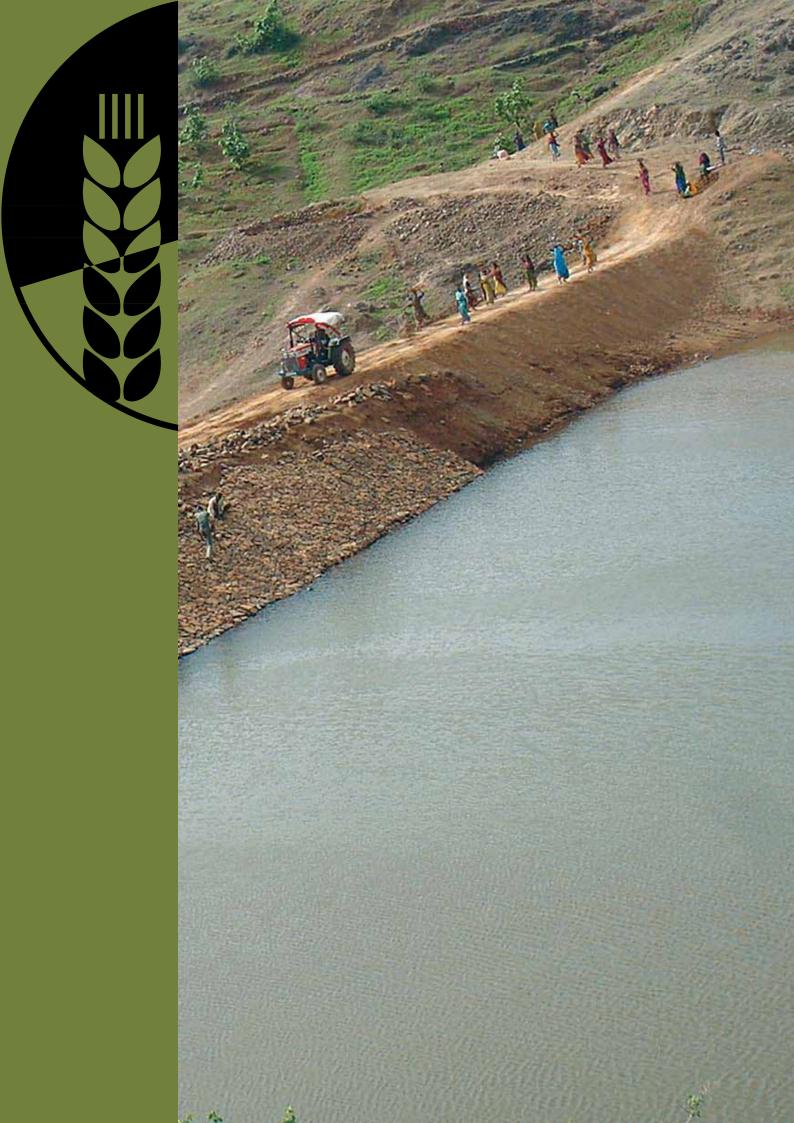
The four relief camps viz., Dornapal, Injaram, Errabore and Konta, are among the largest Salva Judum (local anti-Naxalite movement) Relief camps of the district and are being supported by the State Government and UNICEF.

All the infrastructural facilities, including the requisite laboratory, have been set up by UNICEF-Raipur at "Dornapal Relief Camp", Dantewada district. AFPRO is providing capacity building inputs to VCA staff on sanitary surveillance and sample collection, VCA is conducting the camp level study and submitting filled formats for detailed analysis by AFPRO.

Presently, all the water sources in the four relief camps, numbering 223, have been assessed. After analysis of submitted formats and testing of water samples, 48 water sources under High Sanitary Risk have been recommended for further physio-chemical and microbial analysis. Some activities undertaken at Dornapal relief camp were given technical support by AFPRO. These included construction of 54 boy's toilets in the camp school, 27 individual toilets, kitchen, generator room and production centre, training on vermi-composting for school teachers and students, and setting up of a demonstration vermi-composting unit. Additionally, a Plain Table Survey has been carried out in the Dornapal Relief camp for marking out the precise location infrastructures created, and a location map of the camp has been prepared.

Similar activities have been planned for the extended phase of the project. Importantly, 24 more villages have been identified apart from the camps for inclusion in the project. A seasonal repetition of sample collection and lab testing processes of those sources that had a High Sanitary Risk Score has been planned for the four relief camps as well as the 24 additional villages. The reports will finally be submitted to the PHED, Sukma Block, Dantewada District for appropriate remedial action.





# **Watershed Management**

#### **Integrated Natural Resource Management Project**

State	Karnataka
Location	District Chickmagalur
	3 villages of N. R. Pura Taluk
Resource Support	Manos Unidas
Implementation	Social Welfare Society (SWS)

Occasional droughts over the past decade and lack of proper soil and water conservation measures have caused acute drinking water scarcity and low agricultural production in N.R. Pura Taluk the project area. AFPRO Field Unit II, Bangalore conducted detailed technical studies to develop a comprehensive plan to combat the situation, both for drinking and irrigation purposes, and to effectively manage the natural resources.

The objective of this 2-year project was to introduce suitable soil & water conservation measures, develop sustainability in agriculture, ensure safe drinking water and alternative livelihood support (IGPs). Both the SWS staff and the project beneficiaries were given oriented on the need of the project, its components and the implementation procedure. Till March 2007, 150 acres of cultivated land was treated with 600 mtrs of bunding & trenching, 10 gully plugs, and 7 farm ponds. Two tanks were desilted to store more rainwater, 10 shallow open wells are dug to ensure drinking water in the 3 villages.

The villagers were trained on improved composting and its relevance to good farming. Twenty composting tanks (11 Vermi-compost & 9 Nadep compost) have are already constructed that are fully functional. Horticultural activities were undertaken and a diverse variety of trees have been planted. Around 1500 fruit tree saplings were distributed to promote horticulture in a scientific way. As an Income Generation Activity, the beneficiaries were trained in mushroom production. Presently, 65 families are engaged in producing mushroom while 20 are engaged in bee-keeping. Areca nut leaf plate and soap powder making are the other two IGPs that are being followed up. One herbal garden was set up in one of



the project villages. The community there maintains more than 50 herbal species. Women members were found to be more active than their counter parts in Vermi-composting and Mushroom production.

#### **Integrated Watershed Development for Tibetan Settlements**

AFPRO has been providing need based socio-technical support to a few Tibetan Settlements in India earlier. This year AFPRO has provided socio-technical guidance to 4 more Tibetan Settlements; three on developing land and water resources, and to one on water quality analysis.

As per Tibetan Demographic Survey Dharamsala 1998, there are about 85000 Tibetans in India, with a continuous in flux of more refugees entering India each year. Therefore one of their major concerns is unemployment, especially of educated Tibetan youth.

#### **Phuntsokling**

State	Orissa
Location	Chandragiri, Gajapati District
Collaborator	Phuntsokling Tibetan Settlement

Based on a directive of the Central Tibetan Administration (CTA), representatives of Phuntsokling Tibetan Settlement at Chandragiri, Gajapati District, Orissa requested AFPRO Task Force, Bhubaneswar to carry out studies for land and water development, and promotion of allied livelihoods in the settlement. The objectives for the project include building capacities of the community for sustainable natural resource management and related well-being of the society, community empowerment through socio-technical inputs for interventions regarding land and water management, water and sanitation aspects and overall socio-economic development in the context and lastly, encourage participation and partnership for maintaining social harmony with planned interventions.

The settlement comprises 5 camps covering 2170 acres of land. AFPRO had initial discussions with the community, followed by processes of rapid appraisal and detailed technical surveys on geo-hydrological and engineering contexts. The technical analysis resulted in identification of probable location specific resource base solutions together with appropriate technologies. The findings and recommendations of the study were shared with the leaders of the settlement, finalizations were based on their suggestions in a detailed project report and submitted to the CTA.

As a result of the intervention, the community will adopt best practices of soil and water conservation, water harvesting and ground water management in the camp. This in turn would exert great influence on productivity of agricultural fields and water levels, leading to socio-economic development and employment opportunities in agriculture for youth of the settlement. This would benefit all the 531 families who are resident in Phuntsokling

#### **Phendeyling**

State	Chhattigarh
Location	Mainpat, Sarguja District
Collaborator	Phendeyling Tibetan Settlement

Similar to the project earlier, the representative of Phendeyling Tibetan Settlement, Mainpat, Sarguja District, Chhattisgarh and AFPRO Task Force, Raipur agreed on a project for integrated watershed development and management for the settlement. AFPRO Raipur

conducted technical studies including hydrogeological and topographical surveys for improvement of land and water resources, for promotion of socio-economic prospects. The report has been submitted.

Seven camps and a monastery are part of this settlement which is located in the upper catchment of Gunguta naala on the Mainpat Ghats and falls under Gunguta River basin. Of these, three are scattered among Indian villages. Interestingly, all the camps are situated in the ridge portion. Gunguta is the main stream that flows between camp nos. 1 and 2, and rest of the streams are found to be small tributaries of Gunguta, Manchari, Mangarda and Koerga streams. The topography of the area is undulating and has a gentle slope adjacent to the streams.

The total population in the settlement comprises of 278 families. It was reported that agricultural production, their mainstay, was declining resulting in almost a third of the population migrating for employment or trade in woollen garments. Financing such trade, which is the only alternate means of livelihood, has been affected due to the fall in agricultural production.

The society reflected a culture of hardwork and gender equality, with sex ratio among working adults being equal. Migration takes place during the months of October and November till February, before the Tibetan New Year.

#### **Dhargyeling**

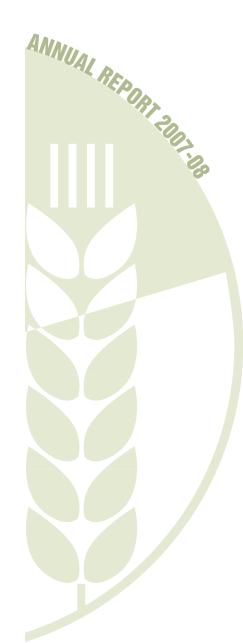
State	Arunachal Pradesh
Location	Tezu, Lohit District
Collaborator	Dhargyeling Tibetan Settlement

AFPRO Task Force, Guwahati has been working with the Dhargyeling Tibetan Settlement, Tezu, Lohit District, Arunachal Pradesh, on two projects. Namely Soil and Water Conservation, and the other on a model for agriculture development.

The settlement has five camps with a total area of approximately 1,839 acres. The major concerns of the settlement were similar, low agricultural yield that is being attributed to the deteriorating soil fertility, and a need for water resources both for drinking and irrigation. The project envisaged development of 1236 acres of agricultural land adopting soil and water conservation measures to enhance soil moisture, as well as sustainable agricultural methods such as composting and crop rotation to improve soil fertility.

AFPRO conducted a detailed technical feasibility study of the existing natural resources including water bodies, drainage patterns, ground water potential and vegetative/forest cover. This was done with community's involvement through discussions, a transact walk, studies of the hydrogeology and land use patterns and condition. The proposed interventions include soil and water conservation measures, field bunding, and composting pits for organic manure.

Though the texture of the soil is clay, the inhabitants of the settlement as well as Rural Works Department, at Tezu, state that the soil is mostly of the sandy loam type. Apparently, up to approximately 0.5 m from ground level, there is rock mixed with sand having around 30% sand and rest clay. Soil erosion is not visible in the settlement, except for one camp, as the drainage lines change their course due to lower gradient. However in some cases soil erosion causes damage to paddy fields as the sandy soil aggravates the erosion. In comparison to the upper area, the low lying area contains more sand as all the soil gets transported to that area.







The impact of an Earthen Dam constructed in Village Himmatgarh, World Vision India, A DP- Ratlam

#### **Partnership with World Vision**

AFPRO continued to work in partnership with World Vision in many of its ADPs across the country, providing socio-technical support for implementation of land and water resource development activities. The collaboration extended across ADPs Mahasamund, Durg, Rajnandgaon in Chhattisgarh, Malda in West Bengal, Jamui in Bihar, Singhbhum and Giridih in Jharkhand, South Tripura in Tripura and Udalguri in Assam, Ratlam, Dewas, Jabalpur in Madhya Pradesh, Aprajita and Barabanki in Uttar Pradesh, Baran in Rajasthan, Palani, Usilampatty, Kalrayan Hills, Manampathy, Gingee in Tamil Nadu and Uttar Kannada in Karnataka.

Specific details from interventions with World Vision in Madhya Pradesh are highlighted here. While one reports on a project based approach where processes have been initiated for awareness and capacity building, the other is a case study depicting the impact of interventions made with socio-technical support of AFPRO.

#### **Ratlam Watershed Project**

State	Madhya Pradesh	
Location	Gopalpura Panchayat and Pipulkuta	
	Panchayat of Ratlam District	
Collaborator	World Vision, ADP Ratlam	

World Vision, ADP Ratlam and AFPRO Field Unit V, Gwalior initiated the Ratlam Watershed Project that is being implemented in 12 villages of two clusters, Gopalpura panchayat and Pipulkuta panchayat of Ratlam District. The 12 villages have 1472 households and cover 10405.7 acres, of which 4552 acres are agricultural land and 3912.2 are forest land.

The area selected is mostly inhabited by the Bhil community (a backward tribe). The area was degraded due to improper management of natural resources but had scope for improvement through soil and water conservation measures. The villagers were very poor,

small and marginal farmers dependant on rainfed agriculture, unable to overcome the undulating topography, rainfall scarcity, lack of adequate irrigation facilities. They were not knowledgeable about agricultural and animal husbandry practices; neither did they have any alternate sources of income.

Groundwater of Ratlam district is affected by fluoride contamination, reflected on the health of village children in terms of strength of teeth and bones. A high rate of water borne diseases such as diarrhoea, cholera and jaundice, have been reported, which reflects bacteria contamination in drinking water. Not surprisingly, the village was poor on the indices of health, sanitation and hygiene.

The activities proposed include awareness creation and exposure visits, training, soil and water conservation measures, water resources management (including surface and Groundwater), safe drinking water and sanitation, on farm demonstration, forest and horticulture management and IGP. The time period for project completion is 5 years.

The watershed development plan of the two clusters was prepared through regular interactions with the community and intensive field surveys in the watershed villages, that included reconnaissance visits of the villages, followed by meetings, PRA and socio-technical studies. The data collected during the exercise were analyzed and crosschecked with secondary sources. The technical components were identified based on the findings from PRA and technical studies for identification of sites for earthen and masonry dams, wells, tube wells, gully plugs, field bunding, marginal bunding etc.

The villages chosen for the project were severly distressed and poor. Community participation and responsiveness had to be ensured. The activities planned were focused towards increasing community level awareness and responsiveness for project implementation, and post project operation and maintenance. A representative group of 100 members from the 12 villages of Gopalpura panchayat and Pipulkuta panchayat, including about 20 womenfolk, were taken in batches of 50 each, on an exposure —cum-awareness building visit to Ralegaon Siddhi, the place where the story of watershed development in India began.

The visit made a deep impact on the villagers and they returned with many learnings that they shared with the other villagers on their return. Village level resolutions were passed on stopping alcoholism (nashabandi), felling of trees (kuralibandhi), and undisciplined grazing (shramdaan). At Kesarpura, Nepal, and Satwalia villages of Gopalpura Panchayat people have stopped felling trees. They have unanimously decided to graze their livestock at select places only. The village committee of Khari under Pipulkuta Panchayat has taken decision of ultimate nashabandi i.e. stopping of consumption of all forms of addictives including alcohol, cigarettes, pan masala etc, within the jurisdiction of their village.

The exposure trip was followed by specific trainings related to potable water sources – hand pump repair and maintenance, and water quality testing. In order to help repair the significant number of defunct hand pumps in the area, as well as to also provide alternate livelihood options, 22 villagers in the project area, 12 - from Pipulkuta cluster(3 villages) and 10 from Goplapura cluster(5 villages), have been trained on hand pump repair and maintenance. Two sets of repair tools have been distributed to each of the two clusters to facilitate their work.

In addition, 15 individuals, 6 from Pipulkuta cluster and 9 from Gopalpura cluster, were trained on water quality testing. Two sets of tool kits were provided to each of the two clusters. The villagers were trained on scientific benchmarks of water quality, such as turbidity, alkalinity/basicity, temperature, fluoride, bacterial contamination etc. and the health implications if standards were breached. The trained villagers have begun sharing their findings at both the village and panchayat levels to spread awareness of water quality in the area.





#### **Case Study**

#### **Interventions with ADP RATLAM**

What is most amazing about water is that, when this resource is respected and taken care of, it brings life to all natural elements around it. This makes it the mother of all natural resources and the nurturer of life. While AFPRO's experiences regarding this principle have been many, the water resource development activities that have been undertaken with World Vision ADP Ratlam in Madhya Pradesh, once again reflect nature's joy at being replenished & guarded.

The process included a participatory appraisal of potential in the region, followed by participatory planning and designing of interventions, subsequent capacity building of the community through trainings, exposure visits and field demonstrations. The Focus Group Discussion and transact walk revealed that there was immense potential for the water resource development in the area, and that villagers themselves gave highest priority to water resources as the main linkage for overall development.

As AFPRO Field Unit V evaluated the potential of the region to be in keeping with the dreams of the villagers, it initially recommended a small scale water resources development program to the community. Eventually, additional components were added on the basis of people's requirement and assessment of potential.

During the year, 3 earthen dams, 1 concrete masonry stop dam, and 1 culvert - cum - Stop Dam have been constructed while 2 ponds have been renovated. Farm Bunding was undertaken in two villages, Kesharpura and Tumdipada. About 60 acres of land belonging to 28 tribal farmers have been treated during the year.

The villagers were required to deposit an agreed sum of money towards a common village fund which could be used for operations and maintenance of the structures.



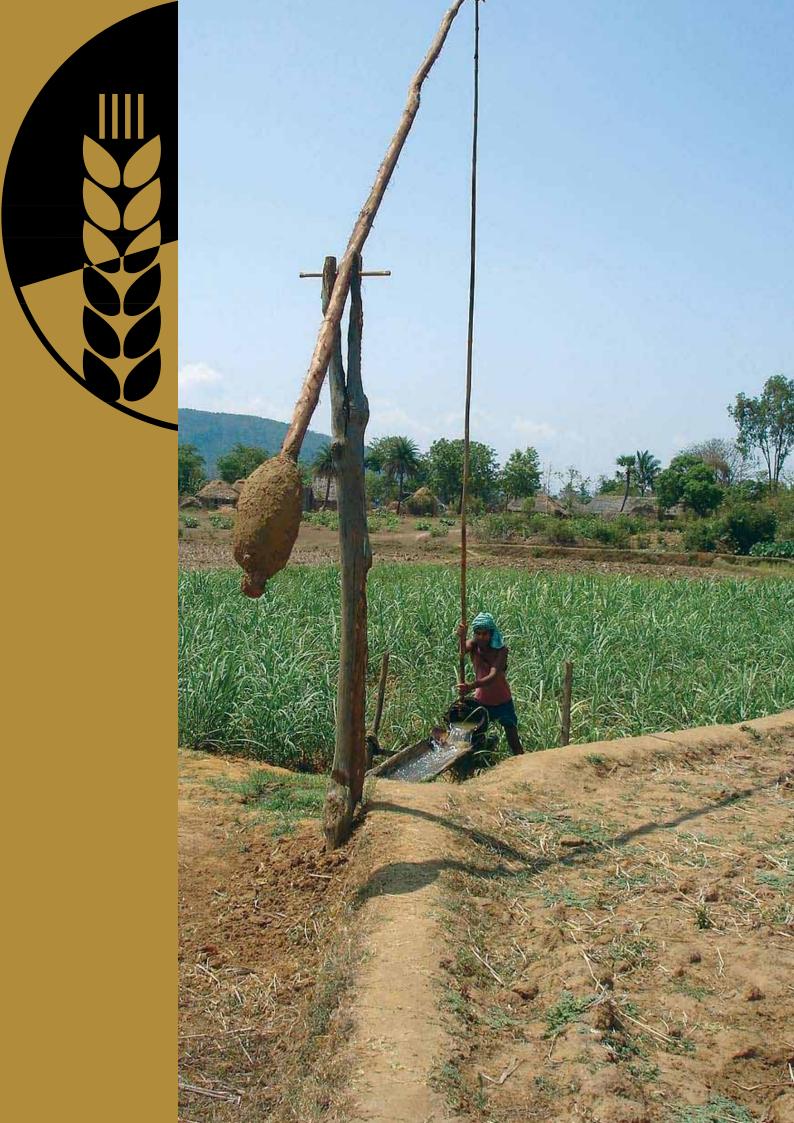
Masonary stop dam constructed in village Chhatargarh World Vision India, ADP- Ratlam

The results of the interventions are that wells have been recharged, and rivulets have become perennial, against the pre-intervention scenario when these dried up after October. The irrigated and cultivated areas have increased, and cropping patterns have changed to support enhanced livelihoods. The program is already being acknowledged in the region, as successful and sustainable intervention.

A highlight of the activities is the involvement of women in construction work; with equal wages being paid to both genders, approximately 70% of 33300 person-days of labor employment generated was supplied by village womenfolk. The table below provides more information on the impact of the interventions.

#### **Impact of Water Resources Development Activities with ADP Ratlam**

Indicator	Village-wise Details			
Name of Village	Chhatargarh	Khari	Himmatgarh	Kesharpra
Types of structure	Masonry Stop Dam	Earthen Dam	Earthen Dam	Earthen Dam
Total H/Hs	35	175	60	20
Beneficiaries H/Hs (All ST)	24	30	40	24
Indirect Beneficiaries H/Hs(Employment etc)	3 villages	2 villages	5 villages	4 villages
Employment Generated (33300 person days out of which-70 % women)	3600	6200	15400	8100
Women days (23310)	2520	4340	10780	5670
Total Cost (Lakhs)	13	7	22	5
Length of structures (m)	32	92	83	78
Height of structures (m)	4.6	7.2	11.3	9.2
Stored Volume (Cum)	4250	5107	55440	11300
Well Recharged (Nos.)	5	9	20	3
Irrigated Area increased (Ac)	40	20	60	17
Cultivated Area Increases (Ac)	5	0.9	2.0	1.4
Migration Reduced (%)	80	20	80	70
New Crops Adoption	Cash crops (Tomato, Brinjal and Potato)	Vegetables	Rabi Maize, Wheat, Gram	Chillies
Crop Shifting	Wheat, Cotton, Tomato	Vegetable and Wheat	Chillies Wheat	Wheat, Cotton, Tomato
Livestock Drinking	50	112	200	130
Fisheries	-	-	Yes	Yes
Domestic	Bathing and Washing Clothes	Bathing and Washing Clothes	Bathing and Washing Clothes	Bathing and Washing Clothes
D/S rivulet survive	Live: it was dry earlier	Live for more time period than earlier	Live: it was dry earlier	Live: it was dry earlier
Village Institution	VDC	VDC	VDC	VDC



# **Food Security and Livelihoods**

#### **V & A Program**

States	Rajasthan and Andhra Pradesh
	Rajasthan
	District Udaipur
	Village Amda in Jhadol Tehsil
	Village Kundai in Vallabhnagar
Location	Tehsil
Docation	Andhra Pradesh
	Mahabubnagar District
	Village Srirangapur in Kondurg Mandal
	Village Kothur in Midjil Mandal
Resource Support	SDC Global Environment Fund
International Consortium	INFRAS
International Consortium	IC, Switzerland
	AFPRO (Field Units Udaipur and
National Consortium	Hyderabad)
National Consolution	MSSRF, Chennai
	MANAGE, GoI
	Rajasthan
	Vikas Sansthan, Village Amda
Implementing Agencies	Sahyog Sansthan, Village Kundai
	Andhra Pradesh
	Eco-Club, Mahabubnagar

Four villages, two each in Rajasthan and Andhra Pradesh, are the part of a critical four year program seeking to establish a grassroots level response mechanism to climate change, based on natural resource management. The Program titled "Vulnerability Assessment and Enhancing Adaptive Capacity to Climate Change





A harren at Village Amda: Traditionally an unlined irrigation channel that carries water under the force of gravity from water harvesting structures upstream, this structure has been provided lining as an adaptive measure.

in Semi-arid Areas of India," (V&A Program) is funded by SDC's Global Environment Fund, and has been developed on the basis of the outcomes and experiences gained from earlier projects under the fund. This is a multi stakeholder program consisting of a National Consortium comprising M. S. Swaminathan Research Foundation (MSSRF, Chennai), AFPRO, represented by Field Unit III, Udaipur and Field Unit VI, Hyderabad, and The National Institute of Agricultural Extension Management (MANAGE), together with an International Consortium comprising INFRAS and Inter Cooperation, Switzerland.

The program is attempting to arrive at a model to secure livelihoods of rural poor and vulnerable communities in the face of adverse impacts of climate change. The thrust is on capacity improvement through appropriate guidance for enabling the communities adapt to such impacts. In order to support such adaptive capacity, the service delivery mechanism needs to be streamlined to accommodate the now unavoidable phenomenon of climate change. The program is working on a hypothetical approach viz;- Energy, Water, Agriculture and Livestock.

Energy refers to alternatives that are adoptable at the village level. In the scope of this program, the focus is on energy options oriented towards biomass. Water refers to appropriate rural water resource solutions, which are planned, implemented, operated and maintained by the village communities. A special emphasis of this program is to capacitate communities with

simple meteorological instruments so as to enable up-to-date knowledge and analysis of impact of climatic variations on village resources, especially water.

The hypothesis, Agriculture, refers to village level capacities to plan crop selection for cultivation in local conditions based on different rainfall scenarios (drought, normal, excessive). For this, the program is challenging itself to develop crop options decided in a participatory manner in the light of both agronomic principles and traditional knowledge. Under the Energy component, improved biomass conversion measures have been promoted in the four villages. Trainings have been provided for construction, use and management of the stoves. A study on 'Prosopis' has been initiated in Village Kothur for testing its viability as an energy source for alternative livelihood. 'Prosopis' refers to the genus of tropical or sub-tropical branching shrubs or trees. Initial findings reveal that 150 villagers are managing biomass as livelihoods and 90 percent of families are dependant on Prosopis for domestic energy needs in Kothur village. A study has also been taken up for identifying methods to improve upon charcoal preparation techniques.

#### **Case study**

#### Designing a Water Bank in Darjia Talai, Village Kundai

Only one well exists in Darjia Talai locality of Kundai village and it is being shared by 12 tribal small and marginal farmers for irrigating their fields and also for drinking purposes. The well is located in the valley and agricultural fields are located comparatively at higher levels. While the total area under command of this well is 20 bighas i.e. about 4.2 hectares, irrigation is limited to only those fields that are closer to the well. The farmers are using plastic pipes and open drainage channels for irrigation as the existing system is incapable of irrigating the entire area, since it lacks an efficient water conveyance and distribution system to fields at higher levels. The farmers of this village have often discussed in the meetings for need of having a better irrigation infrastructure so that they may irrigate maximum land to enhance their earnings and availability of water can be assured even during water stress period.

Series of meetings with the farmers of Darjia Talai were held wherein concept of a water bank was discussed. The community accepted the concept and made additional suggestions. A plan of action was drawn up – conducting a topographic survey, preparation of a land use map, conducting a baseline survey, yield and pumping test of the dug well, data analysis, and preparation of structural designs.

A topographic contour map of the area was prepared with one meter contour interval depicting elevation of different land holdings and reduced level of well has been marked. Then the land use map of Darjia Talai has been prepared on the basis of land record data from revenue department and field mapping of different land units. Production data of different crops in Kharif and Rabi were compiled for the year 2006-07. This was followed by a baseline survey of 12 sample households of Darjia Talai.

The yield test and short duration pumping test was carried out in the open dug well of Darjia Talai. Although the yield capacity of well was good, there were at least 3 diesel pump operating around it. Further, one side of the well had collapsed, risking more damage to the structure. Well renovation was taken up with the participation of the stakeholders, for which only cement was provided from the project grant.

After analyzing the data, the engineering design of two water storage tanks with 50,000 and 10,000 ltr capacities, together with lay out of pipes was shared with farmers for their suggestions and finalized.

All the beneficiaries were requested to participate during the process of construction, right from the time of marking out layout of pipes, through till the end.







Cotton now grows in P Janardhan Reddy's field at village Kothur. The field has alkaline soil that was successfully treated through the application of charcoal, sand, gypsum, farm yard manure and bio-agents

The Water Hypothesis is being developed against strengthening of existing water resources and promotion of innovative solutions. Based on participatory approaches, renovation of indigenous water harvesting systems like Bhutiya (Amda), and Doodh Thali (Kundai), renovation of wells (Kundai), lining of irrigation channels (Kundai) including indigenous irrigation channels called Harrens (Amda), have been undertaken in the project. The concept of Water Bank was promoted in a locality of Village Kundai inhabited by 12 families having agricultural fields at a comparatively higher altitude that the single well they depend on for water.

Community Based Water Management Committees have been organized and trainings and exposure trips conducted for them on management of groundwater and observation of water levels in borewells (Kothur and Srirangapur). Four tanks have also been renovated (Kothur and Srirangapur). Drip Irrigation systems have been promoted for promoting water efficiency (Kothur and Srirangapur). Demonstration models of sprinkler irrigation systems for fodder cultivation have been established in two plots of village Kothur and one in village Srirangapur.

The Agro-Meteorological Laboratories established in the four villages are being well-managed. Trainings have been conducted on use of instruments for recording information, analysis of data and dissemination of findings. Weather managers, village volunteers and NGO staff have participated in these trainings. These readings include maximum and minimum temperatures, dry bulb and wet bulb readings, wind velocities in the morning and afternoon, relative humidity on a daily basis, and rainfall. Weather analysis data is being regularly recorded and displayed at important locations in these villages, and being discussed at village meetings.

Under the Land Use hypothesis, activities are mainly being undertaken in project areas in Andhra Pradesh. An inventory of land use based on soil type, slope, ownership, access to irrigation, and cropping patterns has been taken up in the project areas in Andhra Pradesh. Results of experiments on soil reclamation is saline soils undertaken with three farmers in Kothur were documented. A study is also being undertaken on traditional agronomic practices in the area. Horticultural plantations have been promoted as alternatives for rural livelihoods. The 14 beneficiaries, of whom 2 are women, have grown these crops in 2.81 ha



Madhu, the weather manager at Village Kothur, next to the Stevenson's Screen in the Agro-met Lab

planting species such as Amla, Sapota and Mango. In order to encourage reduction in the use of chemical pesticides and fungicides, 38 farmers of Kothur were trained on Botanical extracts preparation for Non Pesticide Management wherein they learnt preparation of neem leaf extraction, chilli garlic extract, vitex leaf extract and Panchagavya. Vermicompost units have been set up for 18 farmers.

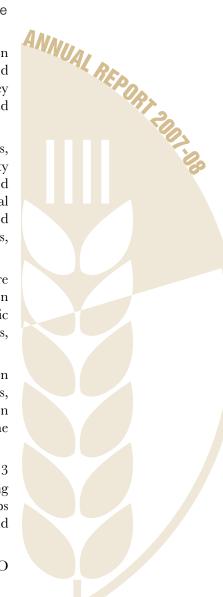
Training was conducted for Smart Farmer's Clubs on various functional roles, management of crops, collective decisions, resource mobilization, purchases of quality seeds, fertilizers, bio- fertilizers and agriculture equipments. The SFC organized monthly meetings with State Departments such as Agriculture, Horticulture, and Animal Husbandry, and with Block level officials. Thirty farmers from each village participated in the preseason workshops on themes such as dryland agriculture, alternate options, increasing cultivation of dry crops and reduction of irrigated crops.

The Livestock Hypothesis is being taken up in project areas in Rajasthan, where pastureland development and breed improvement is the focus. Livestock, focuses on sustaining the livelihood option as viable alternative in the face of changing climatic patterns. The program is working on fodder security reflected through "buffer" stocks, together with identification of good breeds.

In Kundai village, 12 farmers of Darjia Talai have developed 10 hectares of common pastureland through fencing and necessary soil & water conservation measures, including a small check dam. This has resulted in an improvement in the production of grass - 12,000 bundles were collected this year as compared to 6,000 - 8,000 in the past.

From 8 improved bucks (goats of Sirohi breed) distributed last year, 5 in Amda and 3 in Kundai, 50 progeny were born in Amda village and 86 progeny in Kundai. Existing bucks were castrated for promoting the improved breed and regular de-worming camps for the newborn goats were conducted. The newborns are being closely monitored and studied.

A team of international journalists from South and South-East Asia visited AFPRO







The team of international journalists and inhabitants of village Kundai engaged in discussions

Field Unit III, Udaipur from 29 – 31 October 2007. They participated in a three day exposure tour to village Kundai, one of the two project villages in Rajasthan.

The initiative was taken by SDC in collaboration with UNDP, that had organized an International Workshop to educate journalists on Climate Change that was held at Delhi in November 2007. The journalists visited Representatives from SDC, M S Swaminathan Research Foundation, Inter Cooperation, local NGO partners and AFPRO participated in the visit.

After a briefing meeting on the first day, the group visited the village on the second day and studied the interventions made. These included the Agro-met laboratory, Rainwater harvesting structures, Pastureland development, Improved chullahs (Wood stoves), and work on Well renovation, among others. They also interacted with the villagers to understand their perspectives regarding climate change and the work that had been done in the project. The exposure trip concluded with a de-briefing session by the visiting journalists on the third day.

#### **Development of a Model Organic Farm for Capacity Building**

State	Tamil Nadu
Location	Mettupalayam, 47 km from Coimbatore
Collaborator	Coimbatore Multipurpose Social Service
	Society (CMSSS)

AFPRO Field Unit II, Bangalore has been providing socio-technical support for the development of a model organic farm for capacity building at Mettupalayam, foot hills of Ooty, about an hour's drive from Coimbatore, Tamilnadu. The project was initiated in September 2004 and most of the activities were completed by August 2007. AFPRO has been involved both at the stage of proposal development as well as implementation.

The farm has been developed on a 73 acres farmland contributed by CMSSS. Manos Unidas, Spain has provided funding support for establishment of the farm, its various farming activities and capacity building programs for three years.

Named MANOS Garden, the farm has been established as a platform for propagating

eco-friendly natural resource management based agricultural practices. It will serve conveniently for exposure trips and educational tours for grassroots NGOs of South India.

A variety of farming techniques are now demonstrated on the farm. For soil and water conservation, canal, bunds, gully plugs, a farm pond, a percolation pond, and micro-irrigation systems like drip, pot and sprinkler irrigation have been set up. The ponds presently need repair as they have been damaged on account of floods.

As models of Agriculture and Forestry, the agro-forestry varieties of agri-silviculture, silvi-pasture and Agri-silvipasture, Herbal Gardens, Three-tier farming approach, Mixed orchards, Nursery raising, Lowland Plantations, Organic farming, Live fencing, Fodder Production, and use of Traditional Seeds, have been demonstrated.

Allied farm activities such as pisciculture, animal husbandry, poultry, bee-keeping, piggery, animal feed mixing units, and biogas plants have been established.

A marketing center has been contructed for sale of products. The training center constructed covers 2730 sq. m of area, where trainings are regularly conducted, About 600 people have been trained.

#### **Backward Regions Grant Fund**

States	8 States (details on next page)
Location	13 Districts
Resource Support	Ministry of Panchayati Raj, GoI
Implementing Agency	Panchayats of the District, Intermediate
	and Village Levels

AFPRO was been empanelled as Technical Support Institution with the Ministry of Panchayati Raj & Planning Commission's Backward Regions Grant Fund (BRGF). The program is being promoted for District Plans in backward districts as well as Special plans for Bihar and the Kalahandi-Bolangir-Koraput (KBK) districts of Orissa. It seeks to open up the process of District level planning for purposes of the Eleventh Five Year Plan to Panchayati Raj Institutions and Municipalities. Being implemented in 250 identified backward districts, it makes PRIs at three tiers of governance –village, intermediate and district –responsible for respective five year plans and annual plans. These are to be drawn up on participatory identification and prioritization of local felt needs. Such sub-plans will be suitably amalgamated at the district level by District Planning Committees to arrive at the Comprehensive District Development Perspective Plan.

Through this initiative the Central Government has launched itself onto the path of integrated development. Even though, the focus of development has always been equitable growth, sectoral development initiatives of the government have served the development of the more educated or attitudinally progressive sections of grassroots Indian society. The Mid-term appraisal of the Tenth Five Year Plan has revealed that regional imbalances have increased over the past 15 years, including intrastate regional disparities, some of which were noticed even within some prospering states. Perceiving the limitation of existing planning approaches, the National Common Minimum Program of the present government, had envisioned a variety of development programs, one of which was a special program for development of backward states. The Backward Regions Grant Fund (BRGF) was conceived and promoted to this end.

AFPRO is supporting 13 districts in the District Planning segment of BRGF (table on the next page). The role of technical support institutions is to provide capacity building and facilitation support to PRIs and Municipalities in the district, as well as for final convergence of all sub plans into the District Plan.





The BRGF seeks to adopt a bottom-up participatory district planning process that involves converging and supplementing various development initiatives of the government already in place. The process involves first planning against funds of existing development initiatives of the government - the District Segments of State Plans, Centrally Sponsored Schemes, Flagship Programs (Employment Guarantee, Sarva Shiksha Abhiyan, Rural Health Mission and Bharat Nirman), and any Grants-in-Aid. Once details have been chalked out, BRGF resources will be used to fill gaps, bring convergence and add value with regard to various components.

The aim is to effect a plan process for improvement of local infrastructure and other development requirements, strengthen performance and delivery capacities of Panchayat and municipality level governance in planning, decision-making, implementation and monitoring, with the support of professional agencies.

Activities are underway in most of the districts where AFPRO has been identified for support. A TSI such as AFPRO has to support plan processes at all levels in the district – Gram Panchayat, Block Panchayat and District Panchayat, as well as Municipalities. The role includes conducting workshops, meetings for orientation of elected representatives and officials, visioning processes for identification of objectives, long term priorities, key issues, facilitation of development of Five Year and Annual plans by identification, prioritization of needs, and finally further facilitation for consolidation of all such sub-district plans into a single plan for approval by the District Planning Committees as the Comprehensive District Development Perspective Plan.

#### Districts being Supported by AFPRO as TSI under BRGF

State	Districts
Maharashtra	Ahmednagar
	Nandurbar
	Yavatmal
	Dhule
Karnataka	Davangere
	Gumla
Jharkhand	Latehar
	Hazaribag
Andhra Pradesh	Medak
Assam	Dhemaji
Meghalaya	Ri Bhoi
Chhattisgarh	Mahasamund
Orissa	Deogarh

#### **Ensuring Food Security Through Community Participation**

AFPRO and United Way, Mumbai are jointly working on "Ensuring Food Security Through Community Participation", a program being implemented from 2008-2011 in the states of Maharashtra, Gujarat and Andhra Pradesh. These states have been selected as marginal rural communities here are faced with the prevalence of rainfed agriculture, limited irrigation facilities, and limited knowledge regarding agricultural practices and opportunities. This in turn limits the nutritional intakes of these families.

The project is divided into sub-projects on a regional basis. In Maharashtra, the sub-project is "Addressing Household Level Food Security Issue Through Homestead Cultivation And Capacity Building Of The Tribal Community In District Yavatmal". The title of the sub-project in Gujarat is "Empowering 2000 Women And Adolescent Girls Through Homestead Cultivation In Rapar Block Of Kutch District". "Self Reliant And Sustainable Development

Of Women And Children In Rural Areas And Training Farmers In Advanced Farming Techniques" is the sub-project title in Andhra Pradesh

State	Maharashtra, Gujarat, Andhra Pradesh
Location	Maharashtra
	38 villages of Maregaon and Zari Zamni Blocks, Yavatmal
	Gujarat
	10 villages from Rapar block of Kutch District
	Andhra Pradesh
	16 Habitations from 5 Gram Panchayats
Implementing Agency	Maharashtra
	Gramin Samasya Mukti Trust (GSMT), Maregaon
	Dilasa, Zari Zamni
	Gujarat
	Cohesion Foundation Trust
	Andhra Pradesh
	Chaitanya Society for Agriculture and Rural development (CARD)
Resource Support	United Way, Mumbai

The project objectives include (i)increase of nutritional intake and overall well-being of the project beneficiaries, (ii)increase in their food production and food security levels, (iii) capacity building of farmers on improved agricultural practices for better livelihood and income generation options, (iv) behavioural changes on sanitation, hygiene and health, (v) women's empowerment, (vi) maternal & child health, and promotion of health seeking behavior.

#### **Livelihoods Studies for World Vision**

State	Andhra Pradesh	
Location	Narsapur and Eluru, West Godavari	
	District Machilipatnam, Krishna District	
	Shadnagar, Mahbubnagar District	
	Vizianagaram, Vizianagaram District	
Collaborating Agency	World Vision India	

Rural Livelihoods in developing countries and underdeveloped countries are themes that continue to challenge government planners and grassroots development workers alike. In India, we seek assurances from a variety of well-intentioned sectoral broad-spectrum government schemes, emanating at Center as well as State- yet these have not been effective in delivery. Good voluntary efforts have been practiced by civil society based on bottoms-up inclusion of rural communities, which present a myriad of models as options. However, even though these models have common generic principles, their effective implementation on a national scale would undoubtedly continue to nonplus. This would lend substance to the call for a private investment model rather than the public subsidy model of development for the grassroots.

An opportunity to study rural livelihood strategies in Andhra Pradesh presented itself to AFPRO when World Vision approached AFPRO Field Unit VI, Hyderabad for





studies in project areas of four districts viz. West Godavari, Krishna, Mahbubnagar, and Vizianagaram. The five studies are summarized below as key learnings.

The majority of villagers are involved in agriculture and allied activities - while large to medium farmers engage primarily in cultivation, small and marginal farmers depend both on farming the little land available with them or on agricultural wage labour as livelihood options. There are others who practice dairy keeping, poultry farming and herds, and depend exclusively on livestock for livelihoods. The last category is the landless who work as labourers either on agricultural fields or with livestock.

#### **Agricultural Sector**

The agricultural sector improves through employment generated from a combination of interventions that address natural resources, village institutions, community awareness and mobilization. Improvement in physical capital (e.g. soil & water conservation structures, implements and bullocks), in skill sets (e.g. vermi-composting, thrift and credit groups) and financial investment (government inputs), are elements that need to be taken up, that will result in increase of agricultural productivity and with it rural livelihoods, thus curbing migration. Further, the earmarked project areas can be improved through adoption of soil fertility management, a methodology that involves applying the practices of organic farming and nutrient management including bio-nutrients, minimizing unproductive loss of nutrients from the system and maximizing recycle of nutrients within the farm.

Institutional arrangements such as organizing farmers into formal institutions based on the crops cultivated by them will provide them social strength in production and marketing. Membership of each should be restricted to about 20 and these institutions need to be regularly strengthened. The concept "first for family, next for market" should be encouraged. Inputs for enhancing productivity and value addition to products such as improving storage life, need also be provided. Facilitation should be provided for developing market linkages and market intelligence. Small scale financing options in the form micro credit and capital investments at low rates of interest should also be explored.

The crops grown in these regions include Paddy, Maize, Sunflower, Groundnut, Castor, Jowar, Cotton, Vegetables, Fruit Plantations, Floriculture and Coconut. Farmers adopting organic farming must be supported with suitable incentives so as to bring them competitive strengths when facing produce of farmers practicing non-organic practices. Such support could include improved varieties of seeds, loans and training for organic inputs, livestock, and agroforestry. Communities need to be enabled to adopt certification methods, develop markets for rainfed organic produce, and function as collectives for ensuring a good price. Poor people should be supported to produce and market organic fertilizrs. Special godowns could be setup for product and seed storage.

#### **Allied Livelihoods**

Among allied activities, livestock, fisheries, non-timber forest produce (NTFP) and apiaries are possible alternative livelihoods that could be promoted. These need to be promoted by strengthening the community resource base towards improved and marketable produce, while ensuring proper management and care.

Facilities for value addition in fisheries such as drying racks, packing units, cold storage and support for fish pickle production would help improve marketability of fish. Inland fisheries require good variety of seeds and feed, as well as proper care while fish are still in the tanks. Boats need to be provided to fisherfolk on group rather than individual basis to promote livelihoods. Various boats such as large fibre boats with engines, or Fiber Reinforced boats-Catamarans, Wooden catamarns and smaller boats, together with a fishing apparatus such as nets need to be provided based on information regarding field level realities.

Similarly, livestock seen in terms of milch animals, sheep and poultry rearing need support for improving quality and value addition. The farmers also need to be connected with fodder cultivation patterns, use of fecal material for organic manure, etc. Livestock provides an alternative livelihood option to cover for risks of land based livelihoods, a factor which holds a high level of importance for small and marginal farmers and landless labourers. In continuous drought conditions, the poor increasingly take refuge in dairy activities for livelihoods.

Dairy activities need to be formally streamlined around commonly accepted practices for care and enhanced productivity. This would include local veterinary support in the form of locals trained on basic veterinary knowledge and skills, and on the other, possible avenues for animal insurance. The progressive elements in good dairy management would be value addition through processing of ghee, butter, cheese, paneer, curd, and linkages of village cooperatives with external markets.

NTFP collectors need to be trained on best practices for harvesting, post harvest activities, grading, storage, quality control, packing, and transport of produce, as well as regeneration of the forest. They should be given necessary small capital investments for functioning, and supported in developing market linkages with the bulk consumer. Further facilitation on processing of products for market requirements would also be warranted.

## **Non-Farm Sector**

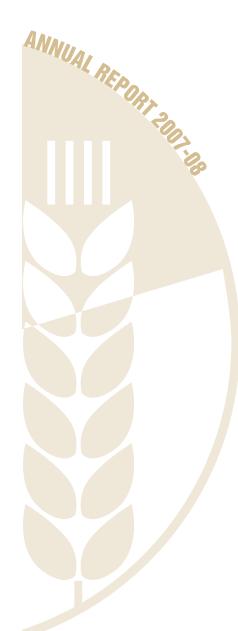
Support to the non-farm sector should be located on micro-credit and market linkages. Micro-credit would free them from the high rate of interest charged by non-banking entities such as moneylenders. Farmer's cooperatives for each sub-activity needs to be established based on the laws of the land and become the central pillar of price or wage determination.

A variety of non-farm sector activities are underway among the villagers. These include assembling and selling of artificial flowers, tailoring and embroidery, masonry and works, carpentry, stone cutting and supply, painting, fruit and vegetable vending, rickshaw pulling, and so on.

The daily earnings among the most remunerative of the above would be about Rs. 100/- to 150/- per day. Innovative solutions need to be picked up from local situations. For e.g. in places where there are only 2-3 tailors who are not able to meet the demand, women can be trained to take up tailoring. Upgradation of skills for all skill-based employment and support for shop owners with small amount of capital investment for extending their business for meeting village requirements are other options.

Similarly, salt-making businesses require drying units, processing units and weighing bridges for accuracy in weight measurement. Those involved in decorative lace-making require further training on independent marketing skills and a special market needs to be set up for the purpose. Again construction of minor infrastructure like washing platforms for dhobis (washermen) and shops for barbers, small investment support for purchase of equipment for barbers and dhobis, are possible interventions.

Further down the livelihood chain are basket weavers, leaf plate makers and Dasari (singing beggars). Basket weavers and leaf plate makers can be provided training on improved skills such as preparation of decorative items need be provided based on assessment of the market demand. Dasaris can be taught about entertainment events based on folk arts and provided adequate skill and knowledge along with small capital investments to support their troupe or alternatively set up some other gainful employment.





## **Human and Institutional Development**

## **Capacity Building Interventions**

Capacity building is a crucial component of AFPRO's approach, which is heavily dependant on it for program implementation. As AFPRO provides socio-technical inputs for Natural Resource Management based projects for rural development, training events conducted by AFPRO focus on basic socio-technical concepts and issues relevant to natural resource management for improved sustainable livelihoods. This strategy provides a simple and yet effective format for grassroots empowerment.

AFPRO undertakes capacity building events either based on project-specific plans, or separate need-based events. The themes on which AFPRO conducted trainings during the reporting year are given below:

## Water and Sanitation

- Hand Pump Repair and Maintenance
- Construction of Ferro-cement tank for rainwater harvesting
- Water and Sanitation
- Water Quality Monitoring and Surveillance
- Bamboo based leach pit latrines

## Watershed Management

- Participatory Watershed Planning
- Soil and Water Conservation
- Watershed
- Natural Resource Management
- Construction of Farm Ponds
- Land and water management
- Wasteland demarcation

## Food Security and Livelihoods

- Efficient Land Use
- Management of Agro-Met Laboratory in V&A Program

- Improved Agricultural Practices
- Horticulture
- Vermi-composting
- Organic farming
- Integrated Pest Management
- Sloping Agricultural Land Technology
- Termite Protection
- Livestock development and management
- Small animal management
- Barefoot Veterinary Technician's training
- Pig rearing, Poultry rearing and Dairy keeping
- Animal Health Care

## **Project Management**

- Participatory Rural Appraisal
- Project Implementation, Monitoring and Evaluation
- Financial Management
- Environment Impact Assessment

Training on hand pump maintenance and repair, conducted for World Vision India, ADP Uttar Kannada



## International Coastal Clean-Up day and Hand Wash Campaign

AFPRO Task Force, Bhubaneswar organized a Coastal Clean-Up and Hand Wash Campaign at Gopalpur on Sea in Orissa on September 16, 2007, a day that is annually commemorated as International Coastal Clean-Up Day. This day is marked by voluntary coastal clean-up campaigns on beaches across the world.

Based on the international campaigns, the aim was to highlight negative impacts of rising marine debris and beach pollution on beach ecologies and bio-diversity, and bring about an appreciation of the need for maintaining cleanliness on beaches and coasts. AFPRO added the hand wash campaign to the day's program to maximize leverage of the outreach opportunity.

Those who supported the event included local partner NGOs like Water Aid, PREM, UAA, OTFWU, SAMUDRAM, the Orissa Marine Resource Conservation Consortium OMRCC (including Greenpeace), and other network partners. Volunteers of these organizations were joined by students and staff from nearby schools and colleges, elected representatives and State, District and Coast Guard officials, community level leaders and SHG members in cleaning up the Gopalpur beach, followed by the hand wash campaign to highlight and assert the importance of hygienic practices.

The 350 participants, of which 250 were students, set about collecting debris lying across the 1.5 KM stretch from Palm Beach to Haripur Creek. After an hour long exercise, the collected debris were gathered at a common point. The list of debris included a huge amount of non-degradable items in the form of consumer wastes like discarded plastic bags, bottles, plates and cups, plastic sheetings, worn out fishing paraphernalia like lines and nets, and surprisingly, hotel wastes.

The debris filled 20 dustbins and weighed about 100 kgs. It has been segregated and safely disposed by Notified Area Council, Gopalpur.

## **Promotion of Better Management Practices in Cotton**

IKEA, Sweden represented by its India office in Gurgaon, Haryana, and AFPRO have agreed to implement a project on Cotton cultivation through Better Management Practices (BMP) in district Yavatmal, Maharashtra. The eventual objective is to produce qualitative cotton for the open markets without using environmentally and socially harmful practices.

Current practices of cotton cultivation are dominated by heavy use of pesticides as the crop easy prey for insect pests and rodents, diseases and weed growth. Besides it is a water-intensive crop grown in dry regions so as not to damage the quality of fibre. As these practices have a degrading impact on the environment, the specific attempt of this project is to support the development of a better model for management of cotton production for the open market.

The components of this project will be promotion of pesticide free cotton, using IPM techniques, capacity building of farmers for adequate transfer of knowledge and technology, and promoting farmer's groups for ensuring good market prices.

## **Information Technology Systems in AFPRO**

In order to keep up with the changing mode of organizational functioning and engagement in the contemporary working environment, AFPRO has been supported by SDC with a special grant to establish an appropriate information technology (IT) infrastructure at AFPRO Head Office, New Delhi.

The IT infrastructure has been fully installed and operationalized. The network architecture consists of the following hardware and software together with appropriate firewalls and securities:





- Domain Controller
- Additional Domain Controller and Mail Server (MS-Exchange 2007)
- Program Monitoring Information Solution (Project Web Access PWA, using MS Projects 2007 Server & Professional Editions with Share Point 2007 and SQL)
- Web Server (AFPRO Website)
- Enterprise Resource Planning Server (FACT Accounting Software)
- Network Added Storage running Microsoft Storage Server
- Magnetic Tape Back up Device

With the help of the new infrastructure AFPRO is able to relate in real time with all its offices across the county. The PMIS solution assists the field office and AFPRO Head Office to monitor projects effectively and provide appropriate solutions with minimum down time.

## **Geographical Information Systems**

Geographical Information Systems have revolutionized the world of information and research. Together with Remote Sensing and Global Positioning Systems, GIS provides effective assistance in decision-making. While these are very useful in public sector works and corporate circles, their use is equally important in environmental conservation and natural resource management.

AFPRO now offers Geograhical Information Systems (GIS) based technical services as part of its socio-technical mandate. It has established a GIS lab at AFPRO Head Office for Geo-spatial application based action research aimed at supporting projects with integrated geo-spatial solutions at each stage, i.e. planning, facilitating, technical guidance, capacity building and monitoring solutions

Using sophisticated software, AFPRO is able to provide a variety of service inputs. GIS services take the form of Application of GIS and Remote Sensing techniques for assessing, managing and monitoring natural environments. Another service is Database management including generation and updation of time-series and cross-sectional data on natural resources and the environment at various levels. Image interpretation is a very important aspect that includes satellite and aerial photo interpretation services, including both visual and digital image processing. This would be used for mapping rural and regional planning, livelihoods, watershed development, energy, environment impact assessment, land use, climate change, geomorphology, forestry, etc. Lastly, inputs can also be in the form of designing and development of Spatial Models and decision support tools. These apart, AFPRO is also planning to offer GIS and Remote Sensing training programs for its partners.

AFPRO organized a one-day symposium on "Application of Remote Sensing & GIS in Natural Resource Management" at its Head Office in New Delhi on 20th July 2007, in collaboration with Indian Society of Remote Sensing, Delhi Chapter and Indian Institute of Sustainable Development, New Delhi. Dr. S. K. Panigrahi, Director (Environment and Forests), Planning Commission, and Vice-President, Indian Society of Remote Sensing, Delhi Chapter made the inaugural address on "Geo-Informatics in Natural Resource Management". The symposium was also addressed by senior technical and scientific personnel from IARI, All India Soil Survey and Land Use Planning, and TERI. There were 34 participants including practioners, technical experts, academicians, planners, students.

The themes covered include application of Remote Sensing and GIS in water resource management, land use management, soil quality analysis, agriculture, forestry, climate change, impact assessment and emerging trends for micro level planning in Rural Development. AFPRO shared its experiences in the application of GIS for an impact assessment project titled "Impact of Tehri Dam on Natural Resources & Socio Economic Conditions of Pratap Nagar & Jakhanidhar Block of Tehri Garhwal".

## **International Exposure**

## **Climate Change and Poverty Reduction**

Mr. S C Jain, Program Coordinator, AFPRO participated in Consultation of Civil Society Organizations at Guyana to discuss Climate Change and Poverty Reduction. Held from 18 – 20 July 2007 in the capital Georgetown, the objective of the consultation was to arrive at consensual commonwealth civil society priorities, issues and recommendations on developing an agenda for growth and livelihoods. A total of 36 participants from 14 countries took part in consultation.

The phenomenon of Climate change is accepted across the world as a reality, it is important to distinguish the issue and address it as a complex of negative impacts and relative opportunities. To this end the consultation drew on the collective experiences of Civil Society representatives to aim at adaptation strategies and measures for mitigation.

Of two lead presentations, the first focused on prioritized mainstreaming of sustainable development for climate change on the national and global agenda, and the second made a case for valuation of forest resources by including the environmental and livelihood costs. Other papers discussed the need for separate financial allocations within international and national plans for addressing the issue of climate change through appropriate response plans and communications strategies, promoting models of good governance for addressing climate change, and addressing the issue of gender as women and children were most vulnerable to impacts of climate change and a shrinking resource base.

After the discussions, the Civil Society Organizations agreed on a common statement that was presented at the Special Theme Session of the Commonwealth Finance Ministers Meeting hosted by the Government of Guyana from 15 - 17 October 2007.

## **United Nations Climate Change Conference 2007**

Mr. P. K. Dutta, Unit Manager, AFPRO Field Unit III, Udaipur attended the CoP13/MoP3 workshop of United Nations Framework Convention on Climate Change (UNFCCC) held from 3 to 12 December 2007 at Bali, Indonesia. UNFCCC meets annually through the CoP to review implementation of the convention.

Among the important issues stressed on by CoP 13 was the urgent need to cut carbon and methane emissions from tropical forests. Another important aspect vis-à-vis livelihoods of rural communities is a resolution that has been adopted on an adaptation fund to help poor nations to cope with damage from climate change impact like droughts, extreme weather conditions or rising sea, has also been adopted by CoP 13.

## Course on Groundwater Governance in Asia – Theory & Practice

Dr. Asad Umar from AFPRO Field Unit I, Ahmednagar, and Dr. S. Srivastava from AFPRO Task Force, Raipur, participated in an international training and research course on Groundwater Governance in Asia conducted by the International Water Management Institute. The four month course, conducted during the period November 2007 – March 2008 was participated by 35 Young Professional Research Fellows, nine Senior Professional Research Fellows and two Media Fellows.

The basic theme of the course was promotion of conditions that facilitate proactive governance of groundwater socio-ecology for improved productivity, equity and sustainability of groundwater irrigation. The course was divided into three parts viz. theory sessions on different aspects of groundwater; theme based cross-cutting research and a synthesis workshop. While the course sessions were mainly held at New Delhi, the final synthesis workshop was held at Kathmandu in Nepal.

More than 45 trainers including regional experts from renowned international institutions enabled the participants to gain and share extensive knowledge on challenges, tools and approaches to groundwater governance in South Asia, East Asia region and other regions.



# **Financial Statements**

# ACTION FOR FOOD PRODUCTION: NEW DELHI BALANCE SHEET AS AT 31st MARCH 2008

Particulars	31st March 2008 (Rs.)
SOURCE OF FUNDS	
Funds and Reserve	119,462,390.97
Program Balances	1,847,377.50
TOTAL	121,309,768.47
APPLICATION OF FUNDS	
A) Fixed Assets	
i) Gross Block	64,426,784.97
ii) Less: Depreciation	46,194,513.18
iii) Net Block	18,232,271.79
iv) Capital Work in Progress	<u>5,253,346.17</u>
	23,485,617.96
B) Investments	69,981,564.00
C) Current Assets	
i) Interest Accrued on Deposits	4,161,826.43
ii) Recoverables & Prepaid Expenses	6,244,438.02
iii) Cash & Bank Balances	<u>21,788,776.01</u>
	32,195,040.46
D) Less: Current Liabilities & Provisions	7,312,691.29
Net Current Assets	24,882,349.17
E) IGP - Aligarh Deficit	2,960,237.34
TOTAL	121,309,768.47

As per Books of Account, explanations & information provided to us

-sd-Cyriac Mathew Chief Finance Officer -sdD. K. Manavalan IAS (Retd.)
Executive Director

*-sd-*Dr. Jimmy Dabhi Treasurer -sd-(Martin P. Pinto F.C.A.) for Pinto M. P. & Associates Chartered Accountants

Place: New Delhi Date: 26.09.2008

# ACTION FOR FOOD PRODUCTION : NEW DELHI INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31st MARCH 2008

Particulars	31st March 2008 (Rs.)
INCOME	
Program Contributions	6,644,938.00
Training Course Receipts	6,300.00
Miscellaneous Receipts	310,253.20
Sale / Disposal of Assets / Old Items	457,386.00
Interest - Savings & Deposits	1,024,931.50
TOTAL	8,443,808.70
EXPENDITURE	
Core Integrated Development Program	
Human and Institutional Development	1,860,844.58
Socio - Technical Personnel Cost	17,272,001.10
Outreach Support	4,484,531.92
Information Services	373,617.29
Administrative Cost	
Admn Personnel Cost ( F & A )	3,345,672.28
Outreach Support	333,473.50
Office Exepenses	4,389,091.40
Hired Services	1,315,183.00
Capital Expenses	1,907,842.44
ED's Discretionary Fund	41,000.00
	35,323,257.51
Excess of Expenditure over Income Transferred to:	
Program Fund	8,960,309.73
General Reserve	17,919,139.08
TOTAL	8,443,808.70

As per Books of Account, explanations & information provided to us

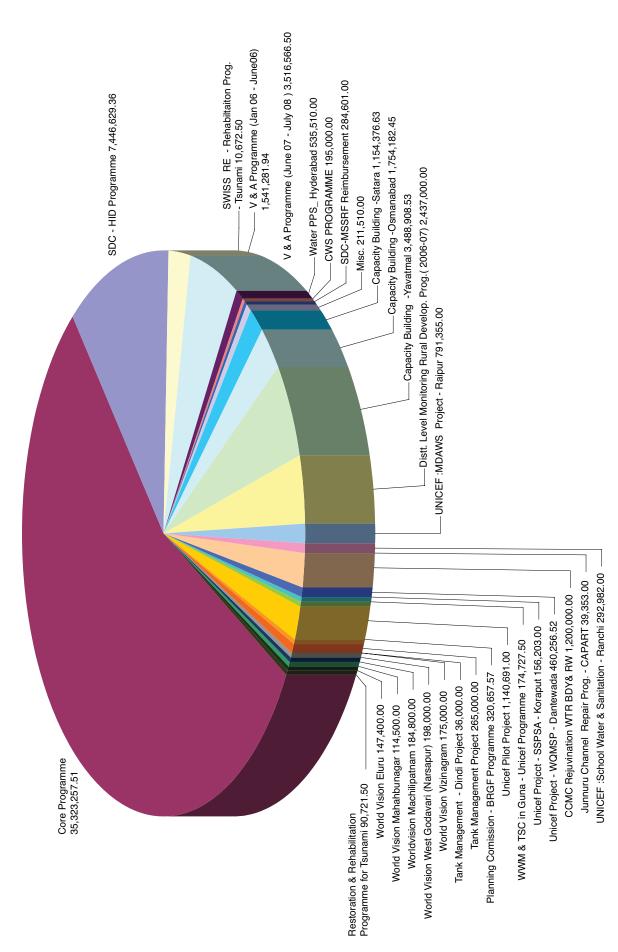
-sd-Cyriac Mathew Chief Finance Officer -sdD. K. Manavalan IAS (Retd.)
Executive Director

*-sd-*Dr. Jimmy Dabhi Treasurer -sd-(Martin P. Pinto F.C.A.) for Pinto M. P. & Associates Chartered Accountants

Place: New Delhi Date: 26.09.2008

# **Expenditure on AFPRO Projects**

# 2007-08



## SIGNIFICANT ACCOUNTING POLICIES & NOTES TO ACCOUNTS

## 1. SIGNIFICANT ACCOUNTING POLICIES

## (i) Basis of Accounting

The financial statements have been drawn up under historical cost conventions, on accrual basis of accounting.

## (ii) Revenue Recognition

- a) Contribution received towards the core program are recognized as income to the extent of the expenditure incurred on this program. Contributions, grants, donations and receipts received without any specific direction are recognized as income.
- b) Funds received for a particular program / project (other than the core program) are recognized as Program Contributions in the Balance Sheet and expenditure incurred against such funds is reflected against the particular fund. The unutilized portion of such contributions, grants, donations are retained as part of Program Balances for utilization as per the donors' directions. Where AFPRO meets the stipulations provided for accessing particular funds for its own use, such income is transferred to a Program Fund forming part of Funds and Reserve in the Balance Sheet.
- c) Interest earned on savings bank accounts is reflected in the income and expenditure account after allocation of such interest derived on unutilised donor funds, which is allocated to the relevant program balance accounts and in the case of the core contributions it is recognized as income and forms part of such core contributions.
- d) Interest earned on investments allocated for a particular fund is credited directly to that particular fund. Interest earned on other investments i.e. fixed deposits placed for more that one year, is credited directly to the general reserve.
- e) Foreign Contributions are accounted for on the basis of the credit advice received from the bank.

## (iii) Fixed Assets

Fixed Assets are stated in the Balance Sheet net of depreciation, with a corresponding credit to the Capital Fund Account. Assets received as donation in kind, are incorporated at a value stated by the donor and adjusted for depreciation.

The cost of assets is charged in full to the relevant program in the year of acquisition. Cost of acquisition is inclusive of freight, duties, levies and any directly attributable cost of bringing the assets to their working condition for intended use.

## (iv) Depreciation

Depreciation on fixed assets are charged on the Written Down Value (WDV) method at the rates prescribed under the Income Tax Rules with a credit of the assets account and correspondingly reflected in the Capital Fund Account.

## (v) Investments

Investments include long term fixed deposits having a maturity period exceeding one year at the time of placing the deposit and reflects principal amount placed as deposit. Mutual funds reflects the amount invested.

## (vi) Retirement Benefits

Contribution to Provident Fund is charged to the relevant program as attributable to the concerned staff.

Encashment of leave at the time of retirement is permissible and in special cases at the discretion of the management during the tenure of employment. A Group Leave Encashment Scheme insurance policy to cover the liability has been taken with Life Insurance Corporation of India (LIC). The amount paid to LIC is charged to the revenue.

Gratuity payments are covered under the Group Gratuity Scheme of Life Insurance Corporaion of India (LIC). The premium paid during the year is charged to revenue.

## 2. NOTES TO ACCOUNTS

- (i) Action for Food Production has been notified by the Government of India as an institution of national importance in terms of Section 10(10C)(viic) of the Income Tax Act 1961.
- (ii) No provision for taxation has been made as the Society is registered under Section 12A of the Income Tax Act 1961 and claims exemption under Section 11 of the Income Tax Act 1961.

# **GOVERNING BODY MEMBERS**

Mr. T. Thomas	Mr. Sushant Agarwal
President – AFPRO Gov. Body	C/o. Church's Auxiliary for
National Council of YMCAs of India	Social Action – CASA
1, Jai Singh Road	Rachna Building,
New Delhi – 110001	2, Rajendra Place, Pusa Road
	New Delhi - 110008
Ms. Rekha Kapila	Fr. Davis Aricatt, sdb
Vice President – AFPRO Gov. Body	Member – AFPRO Gov. Body
G-259, Palam Vihar	Bosco Reach-Out,
Gurgaon -122017	B.K Kakati Road,
Haryana	Bholanath Mandir Byelane,
	Ulubari, Guwahati 781 007
	Assam
Rev. Dr. Jimmy Dabhi	Rev.Fr. Joseph Marangattikala, sdb
Treasurer- AFPRO Gov. Body	Member - AFPRO Gov. Body
C/o. Indian Social Institute	Don Bosco Vocational Training Institute
10, Institutional Area Lodi Road	Nangloi Road, Najafgarh
New Delhi – 110003	New Delhi 110043
Rev. Fr. Varghese Mattamana	Prof (Mrs) Janet Vasantha Kumari
Member - AFPRO Gov. Body	Member – AFPRO Gov. Body
C/o. Caritas India	Madurai Institute of Social Science
CBCI Centre	599, K.K. Nagari, Madurai – 20
A 1 1 DI (C 1 D 11 )	Tamil Nadu
Ashok Place (Gole Dakhana)	ramii Nadu
Ashok Place (Gole Dakhana) New Delhi – 110001	ramii Nadu

## **Abbreviations Used**

New Delhi

Secretary cum Ex-Officio Member

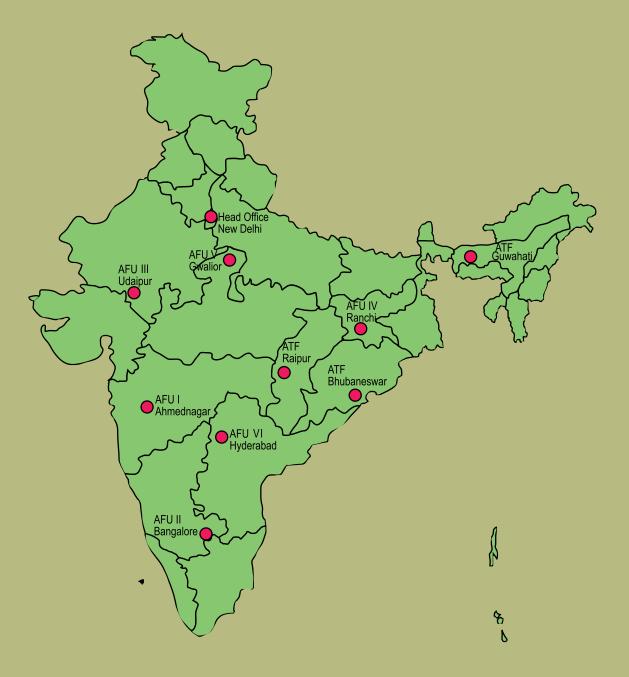
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ADP	Area Development Program	PHED	Public Health Engineering Department
AFPRO	Action for Food Production	PRA	Participatory Rural Appraisal
BPL	Below Poverty Line	PRI	Panchayati Raj Institutions
CBO	Community Based Organizations	RRHS	Rooftop Rainwater Harvesting System
DRDA	District Rural Development Agency	RWH	Rainwater Harvesting
EED	Church Development Service	SC	Scheduled Caste
GOI	Government of India	SDC	Swiss Agency for Development
HID	Human and Institutional Development		and Cooperation
ICT	Information Communication Technology	SHG	Self-Help Groups
IEC	Information, Education and Communication	ST	Scheduled Tribe
IGP	Income Generation Program	SWC	Soil and Water Conservation
ITDA	Integrated Tribal Development Agency	TSP	Technical Service Provider
IWRM	Integrated Water Resources Management	UNICEF	United Nations Children's Fund
LWR	Lutheran World Relief	UNDP	United Nations Development Program
MoRD	Ministry of Rural Development	VDC	Village Development Committee
NGO	Non-Governmental Organization	WUA	Water User's Association
NRM	Natural Resource Management	WVI	World Vision India



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