



AFPRO

Action For Food Production

ANNUAL REPORT
2018-2019

CONTENTS

Aim, Vision and Mission	01
Governing body members & Development Partners	02
From Executive Director's Desk	03
Food Security and Livelihoods	
Better Cotton Initiatives	04-06
Supporting Resilient Practices to reduce vulnerabilities of tribal people due to climate change	07-08
Promotion of Rural Livelihoods through farm sector interventions by water conservation measures/structures for a cluster of 4 Project Villages	09-10
Holistic village development programme through multifaceted interventions in Bhilwara District, Rajasthan	11-12
Water and Sanitation	
Holistic development of the rural communities focusing on water conservation, drinking water and sanitation	13
Improving Hygiene and sanitation among Musahar communities	14
Reaching out to the unreached regions of Meghalaya	15
Holistic village development project in 19 villages in Kalahandi District, Odisha	16-19
Improving drinking water facilities and water conservation works through participatory management	20
Minimizing inequalities and vulnerabilities of tribal population of Dadra & Nagar Haveli by promoting livelihood options through sustainable interventions	21
Improving lives of people through adoption of integrated approach for water, sanitation and livelihood enhancement	22-23
Improving lives of people through adoption of selective approach for water and school infrastructural development	24
Watershed Management	
Augmenting water resources with community participation	25
Replenishing ground water through watershed interventions	26
Management of natural resources with community participation to mitigate climate Change	27
Developing community ponds and farm ponds are cost effective structures for rain water harvesting to enhance rural livelihood	28
Strengthening Resilience and Adaptive Capacities of tribal communities	29-31
Mitigating environmental degradation, depleted ground water sources & climate extremes	32
Land and Water Resource Management- the main approach to Mozambique Climate Resilience Programme	33
Ground water Recharge Enhancement Project at Harpalpur in Chattarpur District	34
Hydro-geological Investigation and Geophysical prospecting for locating suitable bore well sites	35
Human and Institutional Development	36
Financial Statement	



AIM



The aim of the society is development of weaker sections of the rural community and to move towards sustainable development, through overall increase in their knowledge and skills in the areas which directly affect their standard and quality of life.



MISSION



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.

VISION



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 which over the next decade will enable the marginalized rural groups to achieve enhanced socio-economic and personal status in the society through appropriate technologies for the management of natural resources.



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Our Development Partners

- Bajaj Auto LTD
- BCI Growth & Innovation Foundation
- Bharat Aluminium Company Ltd (BALCO)
- CocaCola India Foundation
- EdelGive Foundation
- Emerson Electrical Ltd
- HDFC Bank Ltd
- IDH Sustainable Trade Initiative
- IKEA Supply AG
- Mahindra & Mahindra Ltd.
- Mahyco Monsanto Biotech (India) Private Limited (MABL)

- Pernod Recard India Pvt.Ltd
- NABARD
- Voltas Ltd
- Coordination & Network with other NGOs & Grassroot Workers

Partnership with Governments

- Central and State Govt. in convergence with Niti Aayog, Ministry of Jal Shakti (Department of Water Resources, River Development and Ganga Rejuvenation, Department of Drinking Water and Sanitation) Ministry of Corporate Affairs, Ministry of Environment, Ministry of Forest & Climate Change, Ministry of Renewable Energy and Panchayati Raj.

From Executive Director's Desk



Climate Change requires special strategy on Water Conservation

Inter-governmental Panel on Climate Change (IPCC) - a UN Body has noted that droughts and floods are expected to increase in the subcontinent. Agriculture with its allied sectors is the largest source of livelihood in India with more than 80 % farmers being small and marginal, is projected to be affected by climate change and its future looks alarming with the prospects of declining crop yields, water shortages and degraded lands. Farmers suffer from droughts as well as floods. In this scenario, India's grain production is vulnerable to climate change.

India launched National Action Plan on climate change addressing climate mitigation and adaptation measures, which included National Water Mission with the objective of conservation of water, minimizing wastages and equitable distribution. It aims to support climate adaptation in agriculture through the development of climate-resilient crops, supporting sustainable agriculture, improved agricultural practices and judicious use of water to conserve it for future use.

It is observed that the likely impact of climate change on water resources could be in various forms including increased drought like situations due to overall decrease in the number of rainy days in many parts of the country as well as increased flood events with overall increased rainy days with great intensity. Some researchers highlight that weather situation may get worse in coming years with more uneven distribution

of precipitation during monsoon season compounded by rising temperatures which can adversely impact the yield of major crops.

While irrigation command areas have protection from drought with easy access to canal water, our main thrust of climate change adaptation mitigation activities should be on rainfed areas focusing on rainwater harvesting, soil conservation, land shaping, pasture development, vegetative bunding and watershed development on Integrated Water Resource Management principles (IWRM) and with participation of the user groups and Panchayat Raj Institutions empowered under eleventh schedule, Article 243G of Indian constitution.

Heavy Precipitation events which are likely to increase due to climate change can be of benefit to storage of water in the water conservation structures and aquifer recharges. However, we have also to consider structural safety of check dams and percolation tanks in case of very high precipitation events. In the light of predictions of increasing occurrence of extreme flood events due to climate change, water harvesting structures and their spillways have to be planned and designed to withstand extreme flood events.

Rain water harvesting - a time - honored tradition - can help us to adopt to climate change precipitation uncertainties. We should develop rainwater harvesting technology in such a way that maximum amount of storm runoff can be safely trapped and harvested so that the same can

be used for irrigation and ground water recharge to withstand drought spells. Rain water can be harvested not only through large reservoirs and water structures which have their own limitations, but through roof top rain water harvesting, conserving rain water in river's floodplains during heavy monsoon, scientific management of storm water and waste water treatment. It is said, surface run off should be trapped where it falls. All these measures adopted to conserve water can alleviate water scarcity for drinking as well as irrigation purpose and replenish earth's groundwater.

Water conservation is the main focus of the recently launched Jal Shakti Abhiyan by the Ministry of Jal Shakti. As we are to adopt water conservation in Mission Mode, I would recommend for more skills and capacity enhancements of Panchayat, Municipal Corporations, Government departments and NGOs in the field of planning, operation and maintenance of water conservation works. We need to give serious thoughts in designing buildings, houses, roads and other infrastructures to catch every drop of rain water as extreme rainfall in short spells is becoming a common occurrence. Schools, colleges and engineering institutions should also adopt syllabus and courses related to rainwater harvesting, micro irrigation and maintenance of water systems.

Mr. D. K Manavalan IAS (Retd)
Executive Director



Better Cotton Initiative

Project Background

To produce better cotton and improve fibre quality, AFPRO has been working with cotton farmers in 3 districts of Gujarat and Yavatmal district of Maharashtra where cotton is a major cash crop. The project area is mainly under rainfed agriculture. Rising pest attacks like dreaded pink boll-worm, sucking pests and white fly that are becoming increasingly resistant to chemical dosage and thus the production costs, climate variability and water scarcity, deteriorating soil health due

to excessive use of chemical fertilizers, have been plaguing the cotton growers in recent years. Pressure is mounting on them to switch to other crops since the escalating costs have squeezed their margins. To keep cotton production sustainable, AFPRO has been dealing with these issues and focusing on encouraging farmers to adopt scientific Better Cotton System (BCS) principles and support them with technical, on field support and capacitating them through training, demonstration plots and institutional building

Duration	April 2018-March 2019
Location	Gujarat-Dhangandhara, Wakaner and Dhoraji Dist. and Yavatmal Dist. Maharashtra
Beneficiaries	Gujarat-45098 farmers; Maharashtra-25088 farmers

Project Highlights

Capacity building and Institutional Development

- 2063 Learning Group (LG) formed and 70186 farmers covered in 511 Villages of Dhagandhra, Wakaner & Dhoraji and Yavatmal region.



- 2180 soil and water sample collected and micro nutrient test report analysis shared with farmers.
- Trained 55995 no. of farmers on adoption of HDPS (High Density Planting System) inter cropping and short duration BT hybrids, pre-sowing, sowing techniques and soil & water conservation techniques and also carried out demonstration of HDPS indigenous (Deshi) variety of cotton.



- Trained 37660 no. of farmers on use of recommended dose of chemical fertilizers and period of its application which has reduced overall use of chemical fertilizers.
- Conducted 1125 demo on composting, waste decomposer, Amrut Jal, inter-cropping, soil salinity management etc. which have encouraged the farmers for adoption of waste decomposer and inter-crop application.
- 6 demonstrations conducted on use of short duration hybrids for effective control of PBW, 16 demonstrations on mulching practice for critical water requirement of cotton crop in longer dry spell and 5 demonstrations on green manuring & 18 demonstrations on drenching of bio cultures for effective management of soil health.



- Trained 51594 no. of farmers on Windows based pesticide application and IPM strategy. Farmers are now not using chemical pesticide till 60 days, use neem oil or Beauveria Basiana (Bio Pesticides) as a first spray to conserve Beneficial Insects), use of Light Trap/Pheromone Trap for PBW etc. Farmers were supported with supply of 5200 Kg beauveria, 6000 no. of pheromone traps & 1700 Kg Tricoderma.
- Trained lead farmers of all PUs (Producer Unit) through KVK scientists, external experts and SAU scientists. Trained 38148 farmers on pesticides management and fiber quality improvement through campaigning and farm training. Staff capacity building exercise conducted on soil sample collection & soil management, mulching practices, BCSS principles, documentation, cotton cultivation practices, selection and implementation of demonstration plots, crop protection & water management, decent work - health & safety, pest scouting & pesticide management, salinity management, gender issues, zero budget & natural farming, new changes of BCSS concepts etc.
- Special events/rallies conducted on health & safety and child labor as part of decent work covering 18121 women and 24515 children.
- 75 no. of HDPS & New varietal demonstrations conducted for BT Hybrids and Deshi cotton demo with support of Cotton Research Station, Viramgam.
- 500 no. of demo conducted for Pink bollworm, mealy bug, thrips management using bio-pesticides like beauveria, verticillium, Metarizum, Pheromone & yellow trap.
- 50750 no. of farmers received SMS through KVK, Kryon, Reliance Foundation, JAU, etc. Advisory received on weather, INM, IPM, disease, market etc.
- 13 no. Whatsapp groups were developed for timely sharing of agro-advisory and information.
- Mobile Audio Conference (Satellite Communication) Live 05 Training Programs on INM, IPM and Fiber

Quality organized in collaboration with Reliance Foundation and JAU, Junagadh.

- Development of IEC material like HDPS, FFB, IPM Decent work, BCSS techniques etc. as per recommendation and Biodiversity management along with distributing saplings.

Key Impacts

- All Producer units are qualified (100% compliance with One year license) for growing better cotton.
- Developed linkage with Agricultural Universities to provide technical knowledge.
- An effective support system for facilitating the project is in place in all locations.
- Soil management practices improved the crop growth.
- Demo plots helped in cross learning and adoption of better practices.
- Average net profit is recorded between Rs. 40,000 to 50,000/ha.
- 15-16% reduction in cost of cultivation is recorded.
- Farmers started appropriate use of chemical fertilizers after soil testing. Also 20-25 % reduction in use of chemicals (fertilizer and chemical pesticide) is recorded.
- Farmers changed their attitude towards adult labour, child labour and they start thinking for labour safety and their facilities after sensitization on decent work.
- Development of training modules and IEC materials in the local language helped the farmers to understand various components under BCSS and new assurance programme.
- Quality of cotton is improved because of adoption of simple safe decent harvesting practices.
- Monitoring for nutrient and pest helps in regulating the fertilizer and pesticides applications.
- The habit of sharing of information and collective action related to farming inculcated among the community through LG trainings and meetings.



EXPERIMENT WITH RAISED BED

Experiment with raised Bed Paired Row Planting Techniques for Better Management of Natural Resources

Cotton farmers' livelihood relies on the predictability of precipitation and temperature to grow healthy crops with high yields. Knowing when to expect heavy rainfall or periods of drought impacts a farmers' decision about what management practices they follow. Over the last 15 years, weather patterns have become increasingly unpredictable in the area. Farmers must deal with extreme weather like severe droughts as well as deluge from excessive rainfall. This can cause a 20-90% variation in expected production yields. Scientists believe these extreme weather patterns will only worsen in the future due to climate change. It has been observed wilt and para-wilt condition in cotton due to several reasons like variation in day-night temperature, soil compaction on account of use of chemical fertilizer and dry weather, over irrigation, lower organic matter etc.

In the light of adverse weather conditions and other constraints, AFPRO trained the farmers to become smart by changing their farming techniques by introducing raised bed farming techniques which proved to be very effective for cotton farmers when risk of draught as well waterlog condition have become a frequent occurrence.

Raised Bed with Paired Row Farming

Raised bed cropping is a management strategy for removing excess surface water during plant growth. Raised beds are free standing beds constructed above the existing level of soil or grade of the soil with 8"-9" high. The planting area is raised above the existing soil level and usually enclosed within a structure to form a planting bed. The design of raised beds may be formal or informal, or rectangular or irregular shaped. Raised beds are covered with mulch to increase moisture and control weed growth. These types of seed beds promote optimum root growth and maximum aeration, infiltration and drainage. Paired row system increases the plant population than conventional system which helps in increasing crop yield. The requirement of water is also reduced because of the reduction in soil compaction and moisture availability maintained in root zone.



Normal single row Planting



Raised bed paired raw planting

Supporting Resilient practices to reduce vulnerabilities of tribal people on climate change



Project Background

The project is an extension of the previous project covering the same villages focusing mainly on improving the surface water management and water conservation measures to enhance irrigation

facilities, increase the command area and to improve the agricultural practices through training and dissemination of knowledge and skills leading to increased crop yield for optimizing income from small agricultural holdings of the marginal tribal farmers.

Project Title	Climate Change Accelerated land-Water bio-diversity degradation and Mitigation Measures & Adaptive Approach for Enhanced Agriculture Production
Funding Agency	BALCO- NABARD
Duration	January 2017 to December 2020
Location	4 villages viz. Bela, Rogbahri, Sonpuri and Bhatgaon village of Korba Block of Korba district, Chhattisgarh.
No and type of beneficiaries/families covered:	363 families comprising of 250 acres.

Project highlights and Impacts



- **Soil testing & using of Soil health cards covering 100 farmers:** Production increased due to management of nutrients according to the health card.
- **Promotion of SRI Technique covering 110 farmers, and 120 acre and SWI Technique: 35 acres & 32 farmers.** Rice production increased 1.5 times due to SRI and additional Rs. 33000/acre generated through wheat cultivation.
- **Multi-cropping (Paddy, Wheat, Pulse & Vegetable): covering 35 farmers and 32 acres.** Soil fertility increased due to proper cropping cycle. Income increased from Rs. 30000 to Rs.96000/ acre.
- **Irrigation - (alternative row, drip/ sprinkler irrigation: covering 38 farmers, 44 acres.** Production increased by 20% and reduction in water use to 40% due to micro irrigation through sprinkler and drip irrigation.

- **One Irrigation well dug-benefitting 3 farmers and 3 acres of land:** These farmers have access to assured irrigation for Karif crop and vegetable cultivation during Rabi season.



- **One Check dam constructed benefitting 12 families bringing 15 acres under irrigation:** Storage capacity increased by 750cum and vegetable crop also introduced in this land. Yield increased by 25% and income enhanced by 40% due to adequate water source for multi cropping.
- **Constructed 2 retaining walls of the check dam allowing 900 cum storage capacity:** bringing 27 acres of additional land under cultivation benefitting 32 farmers. Rabi and vegetable cropping started in 20 acres of land. Yield increased by 30% due to adequate water availability.
- **2 community Ponds renovated adding 6500 cum storage capacity:** benefitting 80 families for domestic use; 20 acres of land brought under cultivation adding Income @ 25000/family for 15 families through SRI and fishery.



- **Construction of one farm pond generating 950 cum storage benefitting 4 farmers** - covering 7 acres under SRI and SWI cultivation. Additional income generated through fishery for 1 family getting Rs. @ 10000/- per year.
- 5 Solar pumps distributed to 10 farmers-facilitating timely irrigation due to solar energy source covering about 6 acres of land.

Other significant activities

- Organic Farming Training Programme organized for 45 farmers.
- Fencing work completed in 39 acres of 36 farmers.

- Training and demonstration conducted through Vedanta Agriculture Resource Centre-attended by 110 farmers. Exposure Visits organized for 130 farmers.



- SHG empowerment programme organized for 20 women farmers of 2 SHGs supporting vegetable cultivation.
- 10 no. of training and capacity building of young farmers organized.
- Shade Net House provided for 2 farmers.
- One each unit of Solar Driers set up for 5 farmers.

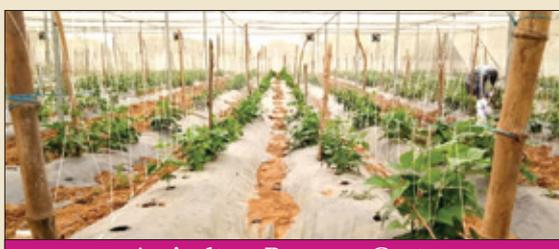
SUCCESS STORY

Farmer Producer Organization- a Ray of Hope for the tribal dominated villages of Korba District

Korba district in Chhattisgarh is a tribal dominated area having its 60% of population comprises of schedule tribes. Though agriculture is the main source for livelihood generation, farmers experience major constraints like lack of knowledge regarding modern agriculture practices, lack of cash flow for availing proper timely input for farming, lack of proper technical support, low market rates due to scattered selling of produce and zero bargaining power which restrains the aim of achieving a sustainable livelihood through agriculture and allied activities.

To empower the farmers to mitigate these constraints, under the technical guidance of AFPRO, jointly supported by BALCO and NABARD, a "Farmer Producer Organization" (FPO) was formed with 256 farmers from seven targeted project villages in the name of "Korba Krushak Unnayan Producer Company Ltd." which is a legal entity registered as a producer company under special clause of Indian Companies Act 2013 on 25th February 2019. Its objectives are to run as a one stop solution for the farmer community through formation of Agriculture Resource Centre, provide input support for the agriculture work, provide market linkage for the produce of farmers and provide better value addition to primary produce. So far, FPO has formed an Agriculture Resource Centre where total of 120 farmers are trained and demonstrated on different emerging Agri. techniques like micro irrigation, trellis method, organic farming etc. Soil testing and soil health cards are distributed to 150 farmers for better nutrients management. More activities have been planned in the coming 3 years in the areas of organic farming, promoting contract farming, bio-fish farming, heavy equipment supply to farmers, vegetable aggregation and delivery, grafted plant nursery units, hydroponic fodder units, dairy farming, own branded products, web application in input supply and village radio.

Certificate of Registration



Agriculture Resource Centre

Promotion of Rural Livelihoods through farm sector interventions by water conservation measures/ structures for a cluster of 4 Project Villages



Project Background

The tribal communities in Chhattisgarh depend mainly on agriculture for their livelihoods and paddy is their main crop. Water availability for irrigation plays a major role in improving the agricultural productivity. Therefore creating new water harvesting structures and renovating the existing ones and improving water

use efficiency to generate more water for irrigation and improve ground water resources are the main strategies to combat erratic rainfall and climate change. From this perspective, the Government is also trying to bring a model law on water resources regulatory mechanisms as the onus of replenishing water resources across the country.

Project Title	Promotion of Rural Livelihoods through farm sector interventions by water conservation measures /structures for a cluster of 4 Project Villages.
Funding Agency	EdelGive Foundation
Duration	January 2016-December 2019
Location	4 villages-Tengna Barpara, Nahanda, Kosmi and Kapermeta of Gurur block of Balod district CG
No and type of beneficiaries/ families covered:	526 farmers covering 630 acres.

Project highlights & Impacts

- **Community Pond renovation/excavation** – 3 no. of community ponds and 2.no.of check dams-creating new storage capacity of 22740 cum water which helps to protective irrigation for 371 acres of land benefitting 305 families.
- **Construction of farm pond (5% model)** – 7 nos-creating additional storage of 5986 cum water benefitting 25 farmers by bringing 14 acres of land under assured irrigation. Fish rearing introduced in the ponds and thereby additional income also generated.
- **Nallah/earthen channel/lining of channel** from Chindraw pond to agricultural field area, saving 1694 cum water from leakage. 25farmers of Kosmi village benefitted through this intervention
- **Promotion of SRI Technique/vegetable cultivation** -spreading over 107 acres benefitting 102 farmers. Production of paddy increased up to 7 to 8 quintals per acre as compared to traditional method.

- **Rabi crop diversification/vegetable cultivation** covering 102 farmers and 48.40 acres. Production increased from 22-25 quintal/ acre on an average to 65-70 quintal /acre this Rabi season. Crop rotation helps in increasing land fertility and decrease in water consumption
- **Supported mushroom cultivation** among 28 women as a family enterprise-bringing additional income to the family besides encouraging entrepreneurship among housewives.



Certificate of appreciation from EdelGive Foundation for the commendable work done among tribal families in Chhattisgarh to improve their livelihood

CASE STUDY

Integrating interventions (watershed and best practices in agriculture) multiply impact and promote aspirations of rural farmers

The farmer-Sarban Kumar Raute belongs to ST category from Kaparmeta village of Gurur block of Balood district, CG. He has a large family of 14 members to look after and his sole source of income is agriculture. Paddy is the main crop during Kharif season and he used to cultivate vegetables in 0.55 acres of land during Rabi season. He tried bitter gourd and okra cultivation in his land but the production was very low due to the limitations of using old traditional practices and lack of irrigation facility.

During modern agriculture training programme conducted by AFPRO & supported by EdelGive Foundation, he attended the training sessions and learned the new techniques - SRI for paddy cultivation & Single Line Trellis method for vegetable cultivation. He took interest and last year he initiated SRI system of paddy cultivation in 1.25 acres of land during Kharif season and bitter gourd cultivation in 0.55 acres of land in SLT method during Rabi season. In 2018, approx. 2 acres of his barren land was brought under irrigational facilities through repair of one check dam nearby his field area under EdelGive supported activity. After the renovation work, the storage capacity of the check dam increased from 540 cum to 1140 cum. He purchased a diesel pump by the profit earned from bitter gourd cultivation and initiated vegetable cultivation in 2 acres of his barren land this year. He preserved bitter gourd seeds from the last season and initiated bitter gourd cultivation this year and saved up of Rs. 5,000/- of seed cost. Also, he cultivated okra this year in line sowing method. The table below shows the tremendous result achieved by this marginal farmer.

In 2017 he harvested 30 Quintals of paddy from 1.25 acres of land and earned Rs. 46,200/- and his total input cost was Rs. 22000/-. Using trellis method, he cultivated bitter gourd in 0.50 acre and 490 kg of bitter gourd was produced and he earned a total of Rs. 25,200/- after spending a total of Rs.14000/- as input cost. Compared to 2017, in 2018 paddy was cultivated in 3 acres of land under SRI cultivation producing 84 quintals of paddy, earning a total of Rs. 150,000/- and his input cost was Rs. 41400/-. His vegetable cultivation of bitter gourd increased to 2 acres of land under trellis method and he earned Rs. 106000 after spending Rs. 48000/- as input cost.

Particulars	Input cost (year 2017)	Output /income (year 2017)	Input cost (year 2018)	Output/Income (year 2018)
SRI system of paddy cultivation	Rs. 22,000/- for 1.25 acres of land	30 Quintals of paddy from 1.25 acres of land and earning Rs. 46,200/-	Rs. 41,400/- in 3 acres of land under SRI Cultivation	84 quintal from 3 acres of land & income of Rs. 1,50,000/-
Vegetable cultivation	For bitter gourd cultivation Rs.14000/- for 0.50 acres of land	Through trellis method, 490 kg of bitter gourd produced and earned a total of Rs. 25,200/-	Rs. 48,000/- for 2 acres of land.	Rs. 1,06,000/- from 2 acre land

Watershed



Pre intervention scenario

The side wall of check dam was broken and completely silted due to which no or partial storage of water in the check dam

Agriculture



Due to lack of irrigation facilities all vegetables used to dry up in lean period giving partial or no yield.

Post intervention scenario

New side wall with wing wall constructed by using stone masonry, repair of Apron with surplus weir repaired, de-silting done to enhance the storage capacity from 540 cum to 1140 cum. Also 3 pairs of iron gate provided to store water during post-monsoon season.



The Sarban Kumar Raute used to cultivate Brinjal in 0.55 Acres of land (August to December) during Rabi season. Now he cultivates cluster beans, brinjal, bitter gourd, cucumber, pumpkin, okra, cauliflower, coriander etc. during monsoon & non-monsoon season by the help of this check dam.



Holistic village development programme through multifaceted interventions in Bhilwara District, Rajasthan



Project Background

Bhilwara district is known for its textile industries and mineral wealth. The selected villages for the project interventions have positive and more negative effects due to the presence of these industries. The presence of textile and other industries have severely affected the ground water, surface water and land due to contamination and over exploitation of ground water by these industries which has marginalized the poor farmers of the area making farming unviable. As per the ground water scenario report published by Central Ground Water Board, the district is marked

as over-exploited in terms of ground water resource. 75% of irrigation is done by extracting ground water through tube wells and the rest by water bodies like pond, river etc. There is 50 to 60% decrease in Rabi farming in villages due to short of rainfall. In this scenario, AFPRO with the support of HDFC Bank Ltd intervened to help these farmers through various interventions in the field of natural resource management, livestock development, water and sanitation and community development programme to improve their agronomical practices, thereby regain their lost wealth and health from their existing resources.

Project Title	Holistic Rural Development Programme in Bhilwara district, Rajasthan
Funding Agency	HDFC Bank Ltd
Duration	October 2017 - September 2020
Location	6 villages in Bhilwara block -Suwana, Rupaheli, Dariba, Kotri, Mandpiya & Billiyan Kala
No and type of beneficiaries/families covered:	3563 HHS with 17232 nos. of people in six villages

Project highlights and impacts

Natural Resource Management:

- Two community ponds de-silted and renovated, three farm ponds constructed; 125 farm lands developed by constructing farm bunds with waste weir; fodder production carried out in 25 hectares of community pasture land; plantation of forestry sapling carried out in all six villages. The water harvesting interventions have created additional storage capacity of about 43.75 lakh litres of water.



Livelihood Promotions

- To promote livelihood interventions, diversified activities were carried out in the farming community. Demonstration plots with 60 farmers each for Kharif season and Rabi season carried out in maize and wheat crop. The activity has focused on cost reduction through reducing seed rate and fertilizer application and yield increase through applying bio-fertilizers, Vermi compost & farm yard manure (FYM), protective irrigation to assure Kharif/Rabi crop & cash crops that would contribute to food security and income growth at family level.
- Two drip irrigation systems installed benefiting 8 farmers saving water up to 70%; 46 vermi-compost units installed in all 6 villages and farmers use the vermi compost in their field of vegetables. The concept of Nutritional Garden promoted among 180 women by distributing vegetable seed kits.
- 18 farmers were supported with raw material -poles and bamboos with galvanized wire - for developing trellis method of vegetable cultivation along with good quality seeds of different varieties.

Livestock Promotion

To improve the quality of livestock, the existing animal husbandry practices were strengthened by providing community bucks, cross breed cows & buffaloes; deworming, vaccination, cattle camps, calf-rally, artificial insemination, conducting regular health check-ups were part of this activity. All these interventions are



reflected in the form of good health and better breed of livestock, increased milk production, better feeding practice and improved health of the families. Low cost Cattle sheds were constructed for 30 farmers. 51 Dove and 12 Breeding Bucks of Sirohi Breed were provided with vaccination, de-worming and insurance benefiting 21 families with a unit of 2+1 (Two Dove + One Breeding Buck).

Drinking water, Sanitation and School infrastructure

- Drinking water facility improved by repairing existing platform and installing 2000 Ltr drinking water tank in Billiyankala village benefiting 225 families.

- 46 solar street lights were strategically installed in all 6 villages. For maintenance and repairing of such lights training was provided by the supplier for the local youth.
- The defunct toilet blocks in 3 schools were repaired benefiting 1212 school children. BALA painting work completed in 6 schools-colored with the norms of government and BALA features. Repair work of school Infrastructure at Girls'school of Suwana village completed.

Formation of People organizations for enhancing people's capacity

Sustainability of any intervention depends on the capacity of the community to manage it independently. With this intention, AFPRO team formed in each village, Village Development Committees (VDC) with 12 members with 30% women participation. Soft skills and managerial skills were developed through continuous trainings & exposure visits. 24 women SHGs formed for collection & internal loaning between them followed by regular meetings & trainings. Volunteer group (Prerak) at village level was formed who became the change agent to assist the villagers in their livelihood interventions. Over the period, they became the base to facilitate implementation of the project components.

CASE STUDY

Production of Organic Vegetables

The story tells about how Mr. Jamna Lalji Sharma, a small farmer from Suwana village turned into organic vegetable producer. He is a small farmer having 4 Bigha (1.5 acre) land. He used to cultivate paddy and other millets in his small plot of land for self-consumption. He used to buy vegetables from the market which cost him minimum Rs.50/-per day which is often stale and full of pesticide residues, at the same time very costly too. But he never thought of cultivating vegetables in his field or making at least a small kitchen garden for self-consumption. His whole perception changed when he got involved with Rural Development Programme organized by AFPRO supported by HDFC Bank LTD. Under the programme he was given 36 bamboo poles, wire to make scaffolding and climber vegetable seeds. He also took part in training for vegetable cultivation, using organic manure. He was also told about the advantages of using the organic manure and how to prepare it. He started cultivating vegetables for the first time using organic manure he produced at home. He says "I get the inner satisfaction of eating pure fresh vegetables produced with my own hands. I need not buy vegetables from the market, thus saving lot of money spent on buying vegetables. I also sold the excess vegetables to my neighbours and got around Rs. 8000/- I am grateful to AFPRO for motivating me to take up vegetable cultivation in my farm and thank HDFC Bank for their support in buying materials necessary for vegetable cultivation"





Holistic development of the rural communities focusing on water conservation, drinking water and sanitation

Project background

AFPRO in collaboration with Mahyco - Monsanto Biotech (India) Ltd has been working in the states of Maharashtra, Andhra Pradesh, Telangana and Karnataka since the year 2015 for the holistic development of the rural communities focusing on water conservation, drinking water and sanitation. The collaboration has shown positive impact on the

community in terms of improved access to safe and sustainable drinking water and sanitation services and economic development of women through entrepreneurship development. During the year 2018-19, in order to scale up the interventions with selective approach, the interventions were limited to water conservation, drinking water and sanitation facilities and capacity building of the communities.

Project Title	Improving lives of People in distress through integrated approach of livelihood enhancement and water & Sanitation services
Funding Agency	Mahyco-Monsanto Biotech (India) Ltd
Duration	April 2018-March 2019
Location	5 Villages-(Thulasigere, Honnakatti, Hiremagi & Bevinal Villages in Bagalkot District and one village-Kadanur in Bangalore Rural District)-Karnataka 4 Villages in 3 Districts of Andhra Pradesh and Telangana Makkinavarigudem & Chinthampalli Villages in West Godavari District of Andhra Pradesh; Shahpur Nagar in Ranga Reddy District and Jaganguda in Medchal District of Telangana 4 villages in Maharashtra-Persoda, Bhivgaon and Sanjarpurwadi in Aurangabad District and Bhivgaon in Jalna district
No and type of beneficiaries/families covered:	Appxo.6000 people

Project highlights

Drinking water and Sanitation

- Construction of school toilet complex at ZPHS, which has reduced absenteeism in the schools especially among girl students and a sense of hygiene instilled in children.
- Two 100 LPH school RO plants with steel guards commissioned for providing safe and purified water for students at Kuvempu, Govt. Higher Primary school in Thulasigere and Govt. Higher Primary School, Bevinal village in Bagalkote district. The intervention has improved enrolment of students and reduced absenteeism in schools associated with drinking non potable water, thereby contributing to a productive society.
- Constructed 212 household toilets in 10 villages benefitting 1060 people ensuring especially safety and privacy of women and elderly, preventing contamination of land and water source.

Water Conservation - nallah widening & deepening

The nallah widening and deepening activity has been completed on 2033 mts length of nallah in Persoda and Bhivgaon villages. This has created additional water storage of 69 TCM (Thousand Cubic Meter) and around 210 acre area will be brought under assured irrigation. The activity has benefitted 220 no. of farmers and will recharge 85 no.of wells.

Capacity Building

Awareness and capacity building events were organised in all villages among the communities and school children about improved health, hygiene and sanitation practices, importance of usage of toilet, hand washing with soap and ill effects of open defecation. Water management through variety of conservation and augmentation measures was another important content of the training. Approximately 4500 people participated in these events.

Improving Hygiene and Sanitation among Musahar communities



Project Background

Khairimal Village of Jamunia Panchayat, Chakia Block, in East Champaran District, Bihar, is inhabited by Musahar community-one of the most backward and marginalized communities in India.They are mostly landless labourers, living under temporary roof in very unhygienic conditions. Open defecation

is common practice prevalent among them. AFPRO has been working with these communities since 2016 to improve hygiene and sanitation among them by constructing household toilets and bringing in behavioral changes through training and awareness campaign with full community participation.

Project Title	Stepping towards “Swachh Bharat” through improved Sanitation in Bihar, Block - Chakia, District - East Champaran, Bihar
Funding Agency	Monsanto India Ltd
Duration	December 2017 to December 2018
Location	Khairimal village, Block - Chakia, District - East Champaran, State - Bihar.
Beneficiaries (Total no. of HHs, as per Social Groups)	250 households

Project highlights

- A total of 250 individual household superstructure toilets with twin leach pits and water tanks for storing water were constructed during the reporting period.
- 27 no. of sensitization training conducted on sanitation & hygiene, use and maintenance of the toilets etc. During the training and campaign, the community was made aware of the roots of faecal contamination and its effect on health.The message also was conveyed to the parents by motivating school children.



PEOPLE'S VOICE

In line with Swachh Bharat Mission

Kishore Sahni (35 years) is living at village Khairimal (Ward no. 9) of Jamuniya Panchayat in Chakia block of East Champaran district, Bihar. The family belongs to Mushahar community-one of the least developed scheduled caste in India. His father Hardeo Sahni is 68 years old. His wife Kiran Devi is about 35 years old. He has six children with 5 daughters and one son. Kishore Sahni is a landless agricultural labourer and he has no capacity to make a toilet for his big family. Therefore open defecation was their daily routine. His old father and female family members faced lot of difficulties for relieving themselves whenever they want to, due to lack of privacy and safety as they had to go to deep forest and look for cover or wait for nightfall. There was fear of snake and insects bite during open defecation. Due to open defecation, diarrhoea and other water borne diseases were very common in the community.



All these difficulties have disappeared with the construction of household toilet with twin leach pit by AFPRO supported by Monsanto India Ltd. Community hand pump is near to their house from which they draw water and fill the water tank attached to the toilet. Kishore says “My father is the happiest man as he need not walk long distance for toileting”. His female members are very happy as they have privacy and safety in meeting their basic need. Besides providing toilet, AFPRO has also given training and awareness on sanitation and hygiene for the whole community due to which their lifestyle and behaviour have changed. They wash their hands by soap after toileting and keep the toilet clean. They are less affected by water borne diseases with the use of toilet and adapting hygienic practices in their lives.

Reaching out to the unreached regions of Meghalaya



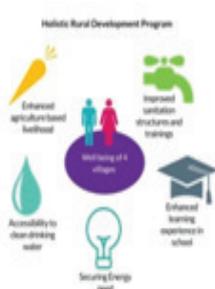
Project Background

Ri-bhoi is one of the most backward districts in India. The area is plagued by unemployment, low agro productivity, low literacy rate along with non-communicable roads and devoid of basic necessities. People's livelihood is based on daily wage labour and agriculture. Agriculture is predominantly Jhum cultivation, facing challenges by climate change like irregular rainfall, pest etc. Working in these villages, one realizes about the emptiness of the big claims of development by all concerned. Even in the 21st

century and after 72 years of independence, people have to walk for 10-12 kms to fetch their daily food items as the unlined village roads become un-motorable even at the slightest rainfall. They depend on natural streams and springs for drinking water; neither there is power connection and the people have to live a life as if in the pre electricity period. AFPRO reached out to these villages in the sectors of livelihood improvement, sustainable agriculture, school improvement, accessibility to drinking water and sanitation and interventions in renewable energy.

Project Title	Holistic Rural Development Project, Meghalaya
Funding Agency	HDFC Bank Ltd
Duration	August 2017 to July 2019
Location	Barbalu, Santipur, Umsarang, Upper Balian in Umling block, Ri-bhoi district, Meghalaya
No and type of beneficiaries covered	226 households with 1565 nos. of people in four villages

Project highlights & Impacts



Drinking water:

Established stand posts (17) and water tanks (2) in 2 villages providing safe drinking water to the communities.



Sustainable farm based livelihood:

152 farmers were provided with planting materials and training to develop kitchen gardens which resulted in earning extra income to the tune of Rs.1000 to Rs. 5000/- after self-consumption of home grown vegetables. To add extra income from their arecanut orchard, 2432 cuttings of black pepper were distributed for mixed cropping with arecanut.

Sanitation:

The existing traditional non-durable unhygienic bamboo toilets were replaced by "two leach pit toilets" for 115 families in 3 villages thereby improving awareness regarding sanitation and diseases among villagers.



Education

AFPRO renovated one school in a village in Upper Balian as the school building was in dilapidated condition, which has helped over 40 students and teachers to have good seating arrangements and increased safety of the class rooms.



Energy and Climate change

AFPRO provided 5 street lights each in 4 project villages covering common places and roads inside these villages. In addition to the above, 158 smokeless stoves distributed to the villagers. This provided better living conditions to the villagers.



Holistic village development project in 19 villages in Kalahandi District, Odisha



Project Background

Agriculture is the main source of employment and income for the people of Kalahandi district. About 80 percent households are engaged in agricultural activities. The district is susceptible to natural calamities like drought and floods. To arrest the

adverse impact of droughts, floods and climate change in the district, focus has been on minor irrigation to improve water storage capacity, crop diversification, soil and water conservation and comprehensive watershed development measures which would lead to improved livelihood of the marginal farmers.

Project Title	Holistic village development project in 19 villages in Kalahandi District Odisha
Funding Agency	HDFC Bank Ltd
Duration	Phase-2 October 2017 to September 2018 Phase-3 October 2018 to September 2019
Location	19 villages in Kalahandi district, Odisha
No and type of beneficiaries/families covered	4149 tribal families

Project Highlights	Outcome and impact
<p>Water conservation structures created/renovated:</p> <ul style="list-style-type: none"> • Community ponds-6 • Construction of farm ponds-10 • Digging/renovation of irrigation wells-38  <p>Skill development and improved agricultural practice for enhancing livelihood</p> 	<ul style="list-style-type: none"> • Water availability to domestic use for 1600 no. of families and 3500 nos. of livestock. • Additional storage capacity of 27994 cum created and ground water recharge by 74307 cum. • Protective irrigational facilities in 461 acres covering 390 farmers; indirectly increase in ground water level (Previously it was 25 to 30 ft below ground level and presently it is 18 to 22 ft bgl). • Initiation of Rabi crops in 114 acres for 100 farmers. Fish rearing in 12 community ponds and farm ponds, getting average of Rs. 75000 per village worth of fish and 10000-15000 per farm pond per year respectively. • Enhance family income from Rs 27000 to Rs 45000 from farm based activities like vegetable cultivation, SRI etc. from irrigation wells. • SRI (System of Rice Intensification) spread to 58 acres covering 52 farmers, enhancing yield on an average 20 quintal/acres/getting an income of Rs.30,000 which is increasing year by year with reduced input cost and water consumption which in turn saves ground water, whereas from normal broadcasting, they get only average-15 quintal/acres-an income of Rs. 20000. Seeing the actual field result of SRI, 35 self-motivated farmers without project support adopted SRI technique in 50 acres of land which is a big success and brought massive change in the area. • Crop diversification through Vegetable cultivation through normal and trellis method intensified. After getting technical guidance and practical training and exposure, farmers adopted better agronomical practices raising their income about Rs. 6000/- to Rs. 7000/- per acre with normal cultivation. In the case of trellis method, covering 13 acres benefitting 145 farmers, they are earning Rs.10000/- to Rs.11500/- on an average. Migration to cities also reduced due to increased income and labour availability in their own farm.



Health & Sanitation



- **Household toilets:** 186 nos of Individual household toilets constructed benefiting 186 families in 16 villages, ensuring proper sanitation and hygienic facilities to avoid contamination of food and water and transmit diarrhea-related diseases among the communities. One village has been declared as ODF (Open Defecation Free).



Construction of bathing steps



Veg. cultivation trellis method - Sankhaimal

- **Supported Mushroom Cultivation** among 81 farmers in 15 villages- Adding extra income of Rs. 2000-2500 to the rural households especially women through this intervention. It also ensures consumption of nutritious food especially for malnourished children, pregnant women, feeding mothers and children.
- **Farmers training and exposure visit.** Two farmers' exposure visits and ten training programmes organized benefitting 100 farmers to motivate them to adopt sustainable practices and new technologies on different advanced agricultural practices for different crops and vegetables, poultry and goat rearing.
- **Drinking water supply:** 15 new hand pumps installed, 50 hand pumps repaired, 4 nos of solar piped water supply in 4 villages(250HH) making available safe drinking water in a hygienic environment for 340 families and two schools. It also helped to decrease microbiological contamination and water borne diseases in the area.



- **Community bathrooms:** 20 nos of community bath rooms have been provided for safe bathing facility to around 1000 women to enhance their cultural practice/ self- esteem in the society. Pollution of the surrounding of hand pumps has been reduced where women used to take bath.





School education & infrastructure development



- **Construction of bathing steps** for 20 community ponds were completed providing better sanitation facility and domestic use of 2890 families in 13 villages.
- **60 nos. of wall paintings** on WASH at community level benefiting 19 villages. Near about 4500 families became aware on WASH. Gradually behavioral changes have been reflected in day to day life of the people. They have stopped open defecation and have better awareness of health and sanitation, environment protection, cleanliness etc.
- **8 nos. of domestic animal health awareness camp**, deworming, vaccination camps organized in 8 villages covering 425 participants from 19 villages. Now farmers have adopted good hygienic practices and caring of animal health. It has also minimized medical expenditure leading to additional cash at disposal.



- **11 schools renovated** benefiting 2045 students, providing conducive study environment in the school, like better seating facility, sanitation and drinking water facilities etc. which reduced dropout rate by 20% and increased attendance rate by 12%.
- **3 normal toilets and 4 model toilets** with ramp constructed with water facility at 5 schools, benefiting 610 students and 9 physically disabled students.
- **In 8 schools, library established** with good furniture, books, playing materials and first aid kits, sports kinds etc. ensuring better seating and study environment. It has enhanced general & geographical knowledge and contributed physical & mental development of approximately 1800 students.
- **Solar piped water supply installed** in one school, ensuring regular drinking water supply to the school and water availability for 110 no of girl students in the hostel.
- **29 nos. of WASH programs organized** in 21 schools benefiting more than 2500 students. 200 nos. flex boards installed in 19 schools. Students are aware on WASH and gradual behavioral changes are taking place in their lives.
- **Refurnished 17 Anganwadi centres** with playing materials, wall paintings, safe drinking water supply improved toilet facilities etc. creating joyful environment for 1200 students. It has enhanced children's curiosity, creativity and eased the process for visual learning. With all these facilities, dropout rate decreased by 10% and increased attendance rate by 30% in the Anganwadi centres.

Improved Practices of vegetable cultivation add up to sustainable income to the rural household

Kubera Budhia is a marginal farmer of Kanakpur village, which is situated at a distance of 4 kms away in the north part of Bhawanipatna, Kalahandi district. His family consists of four members, self, wife, and two school going children. He is a marginal farmer having 1.5 acres of land in which he used to cultivate paddy in 0.8 acre and vegetable in 0.3 acre and the remaining 0.4 acre was left unused because he could not meet the high input cost of cultivation. His total annual income was Rs. 40000/- which was barely enough to maintain his family. Unfavourable climatic condition, irregular rainfall and improper agricultural practices as well as insufficient water for agriculture were the major factors leading to poor return from his agriculture which was the only source of income for the survival of four family members.



Then he came across AFPRO's interventions in his village to improve agricultural practices to get better yield from the same plot by adopting new method of cultivation. Soon he joined Village Development Committee and attended various training organised by AFPRO on modern



sustainable agricultural practices. He took keen interest in vegetable cultivation. Equipped with new knowledge and adopting proper agronomic practices he started vegetable cultivation in his field with bed preparation under the supervision and guidance of AFPRO staff. AFPRO supported him with seeds of ridge gourd for 20 decimal, cucumber for 10 decimal land with limited support of organic fertilizers and pesticides. The bore well in his field met the water requirement for his vegetable cultivation. All together his total investment was about Rs. 12000/- including his labour for vegetable cultivation. After proper caring, at the end, he harvested 20 quintals of ridge gourd with a market value Rs. 30000/-, 17 quintals of cucumber with a market value Rs. 24000/- from his total 30 decimal of land. As compared to previous years where he could make hardly any profit after

self consumption he made a profit of Rs. 52000/- from the same plot of land. After meeting all his household and educational expenditure, he has a saving of Rs. 15000/- in SBI Bank, Karlapada, which he wants to invest further for expanding his vegetable cultivation in future. His determination and new skills on agronomic practices have changed his outlook on agriculture and allied activities.

Improving drinking water facilities and water conservation works through Participatory Management



Project Background

AFPRO in collaboration with Mondelez India Foods Pvt. Ltd. has been working in the states of Maharashtra, Himachal Pradesh and Madhya Pradesh since the year 2015. Under this collaboration, a selective and need based approach was adopted to address the critical issues and problems associated with degradation of environmental resources. Today many states have introduced Eco Village development programme for environmental management through

active participation of local communities for management of available natural resources. With the experience of the first phase, AFPRO has further assessed opportunities to create larger impact in the schools and school children as next generation leaders. Thus, phase 2 of the project was launched under Shub Aarambh Programme addressing the need of upgrading the school infrastructure (Drinking water & Sanitation). In this phase, it is planned to cover total of 105 schools from Baddi, Malanpur and Induri under "Water, Sanitation & Greening project"

Project Title	Improving the Lives of People through Participatory Management of Environmental Resources (Water & Greening)
Funding Agency	Mondelez India Foods Pvt.Ltd
Duration	June 2015 - June 2018
Location	10 villages in Pune district, 5 each in Baddi Industrial Area, HP & Malanpur Industrial Area, MP

Project highlights and Impacts

	PHASE-I ACHIEVEMENTS & OUTCOMES		
	Induri	Baddi	Malanpur
Safe Drinking Water	<ul style="list-style-type: none"> Installed 5425 meter of drinking water pipeline covering 6-Villages benefitting 450 HHs. Installed 3 Community RO Systems along with provision of Water ATM in 2-villages benefitting 2500 HHs. Installed RO System at 2-Schools benefitting 489 school children. All these structures ensured safe drinking water to the communities & school children. 	<ul style="list-style-type: none"> Installed 3 Community RO Systems along with provision of Water ATM in 3-villages benefitting 380 HHs, ensuring safe drinking water to the communities. 	<ul style="list-style-type: none"> Installed 1 community RO Systems benefitting 400 HHs. Repaired 18 hand pumps benefitting 800 HHs. Provision of three borewell & storage tanks benefitted 160 HHs. All these structures ensured safe drinking water to the communities.
Water Conservation	<ul style="list-style-type: none"> 183 TCM(thousand Cubic Meter) of water storage has been created through desiltation of check dams & construction of water harvesting ponds. This has resulted in improved ground water table due to enhanced recharge capacity. More than 120 Ha area will be brought under Irrigation. 	<ul style="list-style-type: none"> Constructed of 1 check dam & 21 gabions in the upper catchment area of Kalyanpur village which has prevented soil erosion and improved water conservation in the area. Created 3300000 Ltr storage capacity through construction of reservoir ponds & desiltation of existing pond. 	<ul style="list-style-type: none"> Deepening, de-silting & renovation of two community ponds enhanced storage capacity upto 21400 cum 3.5 km drainage line development assured irrigation for 700 bigha agricultural land benefitting 50 farmers.
Greenery Development	<ul style="list-style-type: none"> A total of 10486 tree plantation done on road sides, school premises & panchayat common land, thus improving greenery and environment fixing 890 tonnes of CO2 in the villages. 	<ul style="list-style-type: none"> Around 4000 tree plantation done on road sides, school premises, dispensary & in forest area, creating better environment for living. Developed one children park. 	<ul style="list-style-type: none"> 1400 tree plantation done on road sides, school premises and mandir premises. This has created enhanced general awareness about plantation and developed positive attitude towards greenery development. One park developed in Bhind Dist.
	Community capacitated via different IEC tools, continuous meetings, discussion, training, awareness drives, etc. ensuring sustainability of the assets created in the project.		

Minimizing inequalities and vulnerabilities of tribal population of UT of Dadra & Nagar Haveli by promoting livelihood options through sustainable interventions



Project Background

The process of national integration of tribal communities in India is progressively improving, but they are still at the periphery of mainstream development due to lack of sufficient opportunities and appropriate interventions. Under this project, AFPRO conducted a need based assessment

study in 5 villages inhabited by tribal population and planned tailor-made programmes to improve their livelihood and raise their living standard. All the hamlets/Faliyas in the project villages are 100 % tribal populated and belongs to ST Category. The project has directly benefitted 60% of the target population/ households through different interventions.

Project Title	Provision of Community Irrigation, health and sanitation in the UT of Dadra and Nagar Haveli (Silvasa)
Funding Agency	Voltas Ltd
Duration	January 2016-May 2018
Location	5-Villages-21 hamlets/pada in the UT of Dadra and Nagar Haveli
No and type of beneficiaries covered	4797 tribal population covering 824 Households

Project highlights & Impacts

Training and Capacity building



Skill based training on Packaging, By-products, marketing for mushroom cultivation organised for 16 members in village Nanarandha.



Exposure Visit cum Training event organised for 65 farmers of Village Nanarandha at Krishi Vigyan Kendra (KVK) Village-Ambeti.



Training on goat rearing organised for 21 beneficiaries from Dadra and Nanarandha village.

Training on Fishery organised for 10 farmers of Nanarandha village.



Natural resource Development

Installation of two micro Irrigation Kit at Village Nanarandha.



Two bore well recharge pits installed in village Nanarandha (Khorl Pada) for recharge of the existing bore well.

Improving the lives of people through adoption of integrated approach to water, sanitation and livelihood enhancement



Project Background

Vidarbha region comes under semi-arid climatic zone where agriculture is mainly dependent on rain-fed farming (93 % of the net cultivable land) with mono cropping. For the past few years, farmers in this region have been in great distress caused by decreasing productivity and profitability from their sole livelihood due to various factors like high climate-vulnerability, high production cost, price fluctuations, lack of market access and lack of agri-business opportunities. The issues related to growing water scarcity, degrading land resources, land fertility and conventional farming added fuel to their crisis. To alleviate from this distressed situation, AFPRO came up with integrated and efficient management of all inputs, both conventional and non-conventional and introduced multifaceted activities to improve their livelihood options.

Project Title	Integrated Village Development in 8 Villages of Akola district of Vidarbha region of Maharashtra
Funding Agency	HDFC Bank Ltd
Duration	July 2017-June 2020
Location	8 Villages of Akola district
No and type of beneficiaries/families covered	5023-Individual Households & 900-School Children

Project highlights & Impacts

- Organized 73 no. of farmers' training on sustainable agriculture and practices in which 2244 farmers gained improved knowledge on crop management practices which will help in optimization of crop production with reduced input cost.
- Construction of 112 Vermi-compost units in eight villages, capacitating as many farmers in preparation & production of vermi compost & vermi wash. It is expected to produce 142 tonnes of vermi compost and 40000 litres of vermi wash.
- 12 farmers' exposure visits organized attended by 237 farmers for exploring the improved agricultural practices/ technologies to enhance their knowledge on better crop management practices, soil & water conservation and allied agriculture business.
- 96 crop demonstration plots developed on sustainable agricultural practices. These farmers cultivated new crop varieties like Chickpea crop and got better crop production with reduction in cost of cultivation.



- 228 soil samples tested from 8 villages which helped farmers to use appropriate dose and type of fertilizers to be used to improve soil fertility.
- 1835 trees planted in eight villages in common land to mitigate environment degradation.

Livestock development

- 1471 animals were diagnosed & vaccinated through animal health camp along with creating awareness among farmers about animal diseases and the effective use of vaccinations.



Women empowerment through livelihood promotions

- 271 women were motivated for micro entrepreneurship development through skill-based training programs. Consequently 3 Women SHGs (30 women) started Goat rearing & 1 women SHG (10 women) started Dal mill processing unit and 24 landless & marginal families started poultry rearing unit.



Drinking water, sanitation, health and hygiene

- 918 women capacitated on personal hygiene & sanitation practices to improve their health status.
- One RO System installed in a School improving access to safe drinking water for 151 students.
- Construction of sanitation units in six-schools which benefitted 465 school children including 317 girls with improved sanitation facilities followed by training on improved WASH practices.

- 12 no. of health checkup camps organized in which 1201 people participated. The diagnosed patients were linked with referral hospitals for further treatment through community health camps. Six participants underwent their cataract surgery through linkage. Besides, 28 health and hygiene awareness camps were organized in which 918 people participated.



Improving lives of people through adoption of selective approach for water and school infrastructural development



Project Background

Majority of villages of Khedand Maval block in Pune district are located in the fringe of Indrayani River and blessed with various dams like-Jadhawwadi, Panshet, Asarikheda, Mulshi and Andhra. Due to fast growing industrialization in the area, uncontrolled release of effluent into the river bodies and high use of chemical fertilizers and pesticides in agriculture, the water sources both surface and subsurface have got contaminated and have adverse effect on the health of the community. Though the rainfall of

the area is more than 1200mm, still availability and sustainability of water particularly in the post monsoon season is a major challenge due to absence of proper measures of conservation and management of water in the area. The school infrastructure is also very poor in the area which needs immediate attention on upgrading basic infrastructure in the schools to have enabling environment for learning and better health. To address these needs, a pilot project was launched by AFPRO in collaboration with Emersion Electrical Ltd.

Project Title	Improving lives of people through adoption of Selective approach for water and school Infrastructural development
Funding Agency	Emersion Electrical Ltd
Duration	January 2019-December 2022
Location	4 villages of Maval/Khed Block of Pune District, Maharashtra
No and type of beneficiaries/families covered	750 school children and 1200 families

Project highlights & Impacts



School Infrastructure

Installation of five E-Learning Systems in 5 Zillha Parishad schools of Maval/ Khed block which have ensured the quality of education through improved E-Learning facility to 400 school children.



One each RO system has been installed in five schools for ensuring safe drinking water benefitting 350 school children.



Organized training events on behavioral change communication in Mindewadi, Jadhawwadi, and Thakurvasti school.



Water conservation

Deepening and widening of existing earthen nallah bund carried out in Shinde and Karanjvihire villages creating additional water storage of 9670 cubic meter benefitting 50 farmers and 25 surrounding wells.

WATERSHED DEVELOPMENT



Augmenting water resources with community participation

Project Background

The project villages fall under drought prone area with scanty and erratic rainfall. Poor water harvesting structures existing in the area and lack of appropriate water management initiatives further aggravate the situation for making available sufficient water for drinking and irrigation. The livelihood of the people primarily depends on agriculture with 80% area cultivated under rainfed conditions with mono cropping pattern making them highly vulnerable to

crop failure if monsoon fails. Due to the prevailing situation, the farmers with small land holdings are going through an economic crisis due to diminishing return from their farm land on account of high input cost and climate variability. Therefore the project is mainly concentrating on water and soil moisture conservation, water use efficiency, supporting climate resilient agriculture practices to enhance productivity and capacity building and institutional development for sustainability.

Project Title	Bajaj Water Conservation
Funding Agency	Bajaj Auto Ltd.
Duration	November 2017 to March 2022
Location	22 villages in Gangapur block of Aurangabad District, Maharashtra
No and type of beneficiaries/families covered	5057 households with 275676 population and 12669 ha

Project highlights & Impacts



Water Resource Development

- Nallah Deepening & Widening (NDW) work of 3.5 km nallah completed in six villages with 105411 cum excavation work done creating a total of 105.41 TCM (Thousand Cubic meter) water storage capacity.
- Desiltation of percolation tank work completed in one village and total of 90247 cum of fertile soil shifted to agriculture land creating a total of 90.2 TCM storage capacity.
- 6 farm ponds constructed in three villages for water recharge.



Training & Capacity Building

- Village Development Committees (VDC) formed in 20 villages through gram sabhas.
- 11 nos. of exposure visits conducted from 11 villages and a total of 150 farmers participated in exposure visits.
- Training for Gram Panchayat members conducted in 12 villages for their roles & responsibilities in the execution of the project.
- 12 new Self Help Groups (SHG) formed and SHG trainings conducted for old and new SHGs.
- 15 awareness training on Health & Hygiene conducted in 22 villages covering 408 women
- 13 User Groups (UG) formed for NDW work and PT desiltation work.



Agriculture Development

Soil testing of 172 soil samples completed and reports shared with the farmers, imparting knowledge on how to improve the soil health with appropriate mixture of fertilizers and chemicals

Replenishing ground water through watershed interventions



Project background

The project is an effort towards conservation of surface water which plays an important role in the regulation of ground water resources and providing irrigation facilities during dry spells. Collaborating with Coca Cola India Ltd, AFPRO has been executing this project in three villages situated within the proximity of 5 km from the Coca-Cola factory location Pirangut, with an overall objective

of water resource conservation by means of Check dam and spillway construction, renovation and de-siltation of existing CNB and ENB, percolation tank, farm ponds and bore wells. The villages have been identified for the conservation of water resources for improving lives of marginal farmers by availing surface water and recharging of ground water for protective irrigation. Though the area receives good rainfall, the village community has not given serious thoughts about surface and sub-surface water management.

Project Title	Water Conservation and Artificial recharge Project
Funding Agency	Coca Cola India Pvt.Ltd
Duration	September 2017 - August 2020
Location	3 Villages - Pirangut, Mukaiwadi and Urawade of Pune District, Maharashtra
No and type of beneficiaries/families covered	4571 households with 18481 population

Project highlights & Impacts



Desiltation and Construction of New Spillways for existing ENB at Mukaiwadi (Inzai Dara)

It created around 42.4 TCM (Thousand Cubic Meter) of additional water storage to irrigate 18 acres of agricultural land of 10 farmers. Water level in 10 bore wells and 4 dug wells elevated which helped farmers to take a second crop. Availability of water also influenced soil moisture regime and rejuvenating local forest ecosystem.



Renovation and de-siltation of existing CNB (Near to Smashan Bhumi) at Mukaiwadi

The intervention have increased the water storage capacity by 3.5 TCM and water retention period increased helping recharge of bore wells and open wells in the surrounding area which influenced more than 75 acres of agricultural land.



Desiltation of Existing Percolation Tank (P.T.) at Chorghewadi (Urawade)

De-siltation and strengthening of earthen dam at Urawade has created around 51 TCM of additional water storage in the dam, that can be used for irrigating approximately 125 acres of agricultural land, increased water level in 55 wells making more water available for drinking and irrigation and immensely influenced soil moisture regime.



Construction of New R.C.C. check dam at Akhada Pirangut

Construction of RCC check dam at Pirangut site has provided good scope for the surface water conservation in the area. Around 45 TCM of water storage created to irrigate approximately 30 acres of agricultural land and increase water level in the surrounding 25 wells.

Management of natural resources with community participation to mitigate Climate Change



Project Background

Land and water are finite natural resources, which are diminishing due to indiscriminate and unscrupulous exploitation and gross neglect on conserving it through proper technological interventions. India is more vulnerable to such scenario in view of the dependence of its huge population on agriculture and excessive pressure on natural resources. With shrinking land and water resources, improving land and water productivity is critical for ensuring food, nutritional and livelihood security of the population. As water is the medium

of expression of the impact of climate change, land and water management is at the centre of climate change adaptation strategies especially for agriculture. The project “Enhancing Land & Water Productivity through adoption of Land Capability Based Land Use System & Conservation of Water Resources” has been implemented in 11 villages of Pandharkawada block in Yavatmal district of Maharashtra with an overall goal of building capacity of the farming community to cope with the impact of climate change through systematic management of land and water resources.

Project Title	Enhancing Land & Water Productivity through adoption of Land Capability Based Land Use System & Conservation of Water Resources
Funding Agency	IKEA Supply AG
Duration	April 2018 - March 2019
Location	11 villages of Pandharkawada block in Yavatmal District of Maharashtra
No and type of beneficiaries/families covered	3000 farmers, 4500 acres



Project highlights

Promotion of Capability based land use System:

- Soil testing of 500 samples from all the 11 villages have been analyzed for understanding the health of the soil. The reports were shared with the farmers along with proper analysis of the soil parameters and recommended dose of chemicals/fertilizers. The land capability assessment is done in the project villages and the maps were developed for understanding of present land use & cropping pattern.

Improved Water Productivity and Water use efficiency through well inventory and water budgeting exercise:

- Water budgeting and well inventory exercises were conducted in all 11 project villages with active participation of the village community. Awareness training on the importance of water budget was conducted in all the project villages. The water budgets of the respective village were displayed in every village at strategic locations.

Establishment of Observation Well, Water level Indicator

25 observation wells established along with installation of water level indicator in every observation well to record the observations during every season. The water committees have been formed and strengthened in every project village.

Ground water augmentation through artificial recharge through Nallah deepening and widening and construction of farm ponds



The nallah deepening and widening activity was carried out in 5 project villages to increase the water storage capacity in the project area. A total of 4.4 km of nallah has been de-silted and 75 TCM (Thousand Cubic Meter) water storage capacity created in the project area. In addition to NDW exercise, 37 farm ponds also were constructed of various size as per the demand of the individual farmers in 7-project villages which helped farmers to cope with moisture stress during dry spells with supplementary irrigation.

Capacitating village community for sustained community action

The village wise community groups were formed and capacitated for sustained community action for operation and maintenance. The IEC material is developed and disseminated in every project village on land capability classification, soil and water management etc.



Developing community ponds and farm ponds are cost effective structures for rain water harvesting to enhance rural livelihood



Project background

With increased climate variability and rapidly depleting groundwater tables, large parts of India are reeling under water stress. In this scenario, farm ponds can play a vital role for detention of rain water which occurs with high intensity in short spells due to extreme weather events. They are cost - effective structures that can transform rural livelihoods. They can help enhance water control, contribute to agriculture intensification and boost farm incomes. To help the tribal farmers in Kherdi village

of UT of Dadra & Nagar Haveli, whose livelihood is agriculture and considering the local geography of the area, AFPRO planned to create farm ponds with polythene lining to harness rainwater for improving irrigation potential and enabling the farmers to intensify their cropping system. Poly- farm pond prevents water losses due to lateral seepage and vertical percolation. The stored rain water is lifted or drained out by gravity for crop irrigation. The stored water is found to be useful for critical irrigation of paddy crop, ensuring better crop growth and yields which can improve livelihood of these tribal communities.

Project Title	Water Conservation project in Kherdi Village
Funding Agency	Pernod Recard India Pvt. Ltd
Duration	April 2018-March 2019
Location	Kherdi village-UT of Dadra & Nagar Haveli
No and type of beneficiaries/ families covered	40 families

Project highlights & Impacts



Dug out farm pond having a dimension of (60 L × 60 B × 10 H) feet constructed in Kherdi village. The entire pond area including bottom and embankment is blanketed with a 425 GSM tarpaulin (90 L × 90 B) feet. The pond has created additional water storage of one TCM (Thousand Cubic Meter) of rainwater and will bring 2 acres of area under assured irrigation.

Reconstruction of existing Pond carried out in the Government land in order to plug water leakage and fast percolation of water from the pond. The embankments have been reconstructed and strengthened and the leaky outlet has been aligned and reconstructed with proper RCC spillway. Cut off trenches constructed and cleared protruded rocks and rock mass from the pond area resulting in more water storage capacity and increased water detention period after the monsoon. Approximately 40 families regularly use the water for agriculture and indirectly 6 open wells and 10 to 15 bore wells get recharged.



Strengthening Resilience and Adaptive Capacities of tribal communities



Project Background

The impact of climate change directly affects food, water and livelihood security. Therefore AFPRO has been engaged in climate change mitigation activities since 1986 by way of watershed development, renewable energy, climate resilient agriculture, taking up water conservation measures and structures, organizing trainings and workshops on climate change, identification of climate change adaptation measures and conducting research studies and surveys.

AFPRO has been working with tribal communities in Chhattisgarh region capacitating them to cope with the adverse impacts of climate change by achieving inclusive sustainable and climate resilient growth and development. To reduce the vulnerabilities, conservation and management of surface water resources and its effective management and adopting climate resilient agricultural practices were considered as the appropriate strategies in the light of depleting ground water and erratic rainfall pattern prevailing in the region.

Project Title	Integrated Sustainable Rural Development Programme in Chhattisgarh
Funding Agency	HDFC Bank Ltd
Duration	April 2018 to March 2020 (1 st Phase). July 2017 to June 2019 (2 nd Phase). January 2019 to December 2020 (3 rd Phase).
Location	8 villages in Mahasamund Block - viz., Lohardih, Amajhola, Jalki, Fusheradih, Bhorling, Ghodari, Achanakpur&Chhaporadih (3 rd Phase). 5 villages viz. Khallari, Omkarband, Dhansuli, Kosrangi and Navagaon Mahasamund block called "Khallari Cluster" (2 nd Phase). 13 villages viz., Pitaiband, Bakali, Kumhi, Borsi, Basin, Koma, Kirwai, Dhamni, Tila, Kathiya-2, Patewa, Chipridih and Dongitari of Fingeshwar, Abhanpur & Rajim blocks of Gariyaband and Raipur district, Chhattisgarh (1 st Phase).
No and type of beneficiaries/families covered	328 families, covering 452 acres and 650 School children (3 rd Phase) 303 families covering 255 acres (2 nd Phase). 546 families covering 392 acres (1 st Phase).



Promotion of SRI



Check dam renovation work

Project highlights

Interventions	Outcome and Impact
<p>Livelihood promotions & skill enhancement</p> <ul style="list-style-type: none"> Promotion of SRI technique covering 317 farmers and 273 acres; diversification of Rabi Crop covering 211 farmers and 209 acres; Land leveling - covering 20 farmers, 20 acres; organizing 17 no. exposure visits for Promotion of modern agricultural practices covering 650 farmers; mushroom Cultivation - 1 Units- 1 SHG with 12 families; establishing 18 agriculture resource centres benefitting 480 Farmers.  <p>Supporting Rabi Crop Diversification</p> <p>Natural resource management</p>  <p>Construction of Nadep</p> <p>NADEP units: 69 nos. benefitting 69 families</p> <ul style="list-style-type: none"> Watershed management training program-291 farmers. Community ponds renovation-13 nos-cascading 69604 cum water covering 379 acres of land, benefitting 1022 families; check dams-2 covering 40 acres of land and 33 farmers; Nallah treatment: 2 nos. covering 40 acres of land and 33 farmers; Farm ponds: 27 nos. covering 75 farmers & 59 acres and generating 9548 cum water. 	<ul style="list-style-type: none"> Through the use of SRI technique the production rate increased about 1.5 times than the normal traditional broadcasting and transplanting methods and the COP decreased in the range of 40% than the normal method. Farmers initiated Rabi crop, wheat, gram, vegetables, thereby increasing family income. The farmers get various information/training about different modern techniques of improved farming like organic farming, horticulture, banana farming, mushroom production etc. Use of organic fertilizers and pesticides and by use of modern agro equipments have reduced the COP and also increased the production rate and the health of the soil. Under mushroom cultivation the cumulative yield was 55 kg sold @ 200/- per kg, generating an income of Rs. 11,000/- Helps to improve the hygienic condition of the village, minimizing water pollution. Producing organic fertilizers by applying solid waste management improved soil fertility by directly using it in the field. Tendency to use farm yard manure increased in the community. The concept of water management, water budgeting and conservation of natural resources introduced and inculcated in the farming communities. Providing domestic water use & protected irrigational facilities to surrounding areas during lean period of monsoon, converted more land into irrigation land. The new water bodies helped to increase the ground water level of the operational area. Depending upon the availability of water, farmers also do fish rearing in the ponds.
	

- Energy efficient 509 chullahs distributed among as many families.
- Solar street lights-192 nos covering 1990 families in 18 villages.

Drinking water

- **To address the problem of drinking water-** constructed 8 Solar PWS and renovated existing water supply system and Pipe Line in 20 places-covering 2860 school/anganwadi children and 315 families.
- **Hand pumps and platform repaired-**48 units covering 970 School children & 230 nearby families from all 13 project villages.

Education/WASH programme and school infrastructure

- **School toilets/WASH Programme:** 26 no. WASH training programme organized. Awareness and orientation on sanitation & hygiene and on personal hygiene conducted covering 2319 school children and 540 villagers.
- **Repair of school infrastructure:** 11 schools and 5 anganwadis covering 940 school children and 143 anganwadi children with furniture support for 2 schools; setting up 14 mini science lab benefitting 2830 children; wall paintings-18 school and 20 Anganwadies, benefiting 1950 school children and 492 anganwadi children covering 13 villages.
- **Roof top RWHS:** 18 nos-Approx. 1050 students of various schools benefitted.

- Decrease in carbon dioxide emission into environment. Saves 60-65% of fuels & cost of firewood expense. Smoke free environment created for cooking which improves the health of the family members especially women.

- Families are getting together during night time for important discussion, children are studying under street light; saves 8250 KW-H/year electricity energy per year.

- Drinking water is available throughout the year in a clean environment for the communities and school children. Generates 862 KW/Year and save up to 5940 unit/year approx. Rs. 47000 to Rs. 55000/-



Drinking water supply at schools

- 60 % of the community now knows the way to clean their hands and also the importance of sanitation. This is very much helpful for the improvement of the health and hygiene of the people. Gradual behaviour changes are being observed among communities and children.

- It has provided conducive study atmosphere as the sitting conditions are better and the look of the school has also increased. Science lab provides a practical learning experience to the students on different aspects of science and its experiments and will help in building better future of the students. Wall paintings facilitate the process for visual learning of the children.

- Groundwater recharge increased up to approx. 350 cum on an annual average. It creates a hygienic condition in school premises as well as near the hand pumps as there used to be water logged areas which led to unhygienic conditions around the hand pumps.



Community wash programme - village Tumgaon



Mini Science Lab in the school

Mitigating environmental degradation, depleted ground water sources & climate extremes



Project background

Coca-Cola India Foundation and AFPRO came together to strengthen livelihoods of poor rural families through conservation of water resources. AFPRO in close consultation with Department of Agriculture initiated the process of conserving surface water in these micro-watersheds by taking up small water conservation measures. The project adopted the

strategy of aquifer recharge by constructing water harvesting structures across existing streams. Check dams were constructed at 6 locations in a single stream in Hulikal Village of Anantapur District, Andhra Pradesh and 5 check dams across Ponniyar river basin covering 4 villages of Dharmapuri District, Tamil Nadu, where water availability is a major problem.

Project Title	Water Conservation project
Funding Agency	Coca-Cola India Foundation
Duration	November 2017-October 2018
Location	4 Villages of Dharmapuri District in Tamil Nadu, namely Chinnampalli, Bolanahalli, Nammandahalli and Periyapur Hulikal village, Anantapur district, Andhra Pradesh
No and type of beneficiaries/families covered	About 635 HHS&62 farmers covering over 235 acres in and around the check dam and about 1500 livestock

Project highlights

These check dams are simple structures of water harvesting and storing of surface run-off for future use and recharging of groundwater. It is expected that with adequate rainfall in the catchment area, groundwater levels in adjoining wells will gradually increase, addressing issues of scarcity of water for drinking purposes and access to critical irrigation.

However, since gradients in these micro-watersheds are gentle and porosity of rocks highly variable, impacts on groundwater would be highly localized benefitting only surrounding farmers. For recharge of underlying 'aquifers' to take place rainwater harvesting in these areas needs to be intensified both in terms of amount of water being recharged and greater proximity of structures.



New check dam in Dharmapuri



Check dam after monsoon

Interventions

- **Constructed 6 check dams in Hullikal village**
- **Constructed 5 check dams in 4 villages of Dharmapuri**

Impacts

- The check dams are expected to economically benefit over 195 farmers cultivating various crops in over 745 acres in the zone of influence of the check dams with improvement in the crop yields around the check dams.
- Around 800 households will indirectly benefit due to recharging and general increase in soil moisture of the intervened villages. Hence the project will directly and indirectly benefit a population of over 3000.

Water storage and recharge capacity

Dharmapuri: Each time when all the check dams are full, the structures are expected to hold 14055 cubic metre of water and inject 1124 cubic metre of water into the soil layers, thereby recharging 51 open wells and 68 bore wells.

Anantapur: When all the check dams are full, the structures can hold 18450 cubic metre of water and inject 1325 cubic metre of water into the soil layers, nearby recharging 48 bore wells.

- Increased availability of fodder for grazing animals, thereby directly impacting farmers' income.
- In addition to this, it will enhance bio-diversity of the area.

Land and water Resource Management – the main approach to Mozambique Climate Resilience Programme



Project Background

The project was conceptualized in consultation with IDH to address the threat emerged due to climatic variability in five villages of Northern Mozambique. Mozambique has a rich bio-diversity and variation in cropping patterns but small holders of the region is dependent on rainfall. Climate variability poses serious challenges to the production system as the farming is being done by traditional practices in which no efforts are made for managing the water resources and improving the cropping system so that risks can be minimized. AFPRO provided socio-technical assistance to local NGOs for

implementing various activities in the areas of land and water resource management, crop production, crop management, livestock development and capacity building of communities. Having completed the two phases of the project, the third phase was initiated as a consolidated phase to achieve the project objectives. During the previous phases, the project has achieved notable impacts on water resource development, improved drinking water facility, increased area of cultivation, yield improvement, crop diversification and capacity building of the communities to adapt climate resilient practices.

Project Title	Mozambique Climate Resilience Programme
Funding Agency	IDH Sustainable Trade Initiative
Duration	April 2018-December 2018
Location	Mozambique
Coverage	2546 families

Project highlights & Impacts

Water Resource Development (Water Conservation & Water harvesting)

- Constructed four earthen embankments and three artificial recharge structures, three check dams and renovated one check dam. Through these water harvesting interventions, water storage capacity enhanced by about 8000 m³ which benefited about 90 farmers covering 95 ha of land.
- Constructed six open wells which benefitted around 100 families for drinking water purpose and 20 farmers with 20 ha of land for irrigation.

Soil Conservation and Land Development

- 39 Gully plugs constructed and a total of around 5662 metre farm bund constructed in 215 ha of land, harvesting annually over 6 Million m³ water which will support to improve the soil moisture condition, crop growth and yield.

Irrigation (water management)

- Lift irrigation scheme installed and user group formed in Muape village. 7 User groups formed under group irrigation activity and provided water pumps in Lalaua, Palacua and Titimane villages covering about 14 ha of land for second crop.

Crop Diversification

- Technical support provided for vegetable cultivation as a second crop to about 100 farmers covering 12 ha of land.
- On-site training and demonstration carried out on nursery raising, transplantation, irrigation, application of fertilizers & pesticides.

Alternative livelihood activities

- Five goat rearing training conducted with 65 families and 19 youths are trained as veterinary health workers.
- Vaccination and de-worming events were carried out.
- 61 individual women are trained and supported for poultry intervention.



Ground Water Recharge Enhancement Project at Harpalpur in Chattarpur District Madhya Pradesh



Project Background

Harpalpur is a Nagar Panchayat city which is an emerging township in Bundelkhand region of Chhatarpur district, Madhya Pradesh. Drinking water is an acute problem of the communities due to depleting ground water and shortage of rainfall over the past years. Most of the dug wells are dried up in the area. The Nagar Panchayat supplies limited number of water tankers and for additional requirement, people themselves buy water from private suppliers spending around Rs. 35000/

year per family. Therefore the project is focusing on enhancing ground water recharge by taking up artificial ground water recharge measures like construction of roof top rain water harvesting units, pond desiltation, construction of water recharging shafts in new/old water bodies, nallah treatment etc. Community sensitization programme on water conservation, judicious use of ground water and mobilization for water efficient agricultural practices and restoration of environment are part of the project interventions.

Project Title	Ground Water Recharge Enhancement Project at Harpalpur, Dist.Chattarpur, Madhya Pradesh
Funding Agency	Mahindra & Mahindra Ltd.
Duration	August 2018 to March 2020
Location	Block Harpalpur Dist. Chattarpur
Coverage	Harpalpur village - 4000 HHs

Project highlights & Impacts



Organized 24 no. of training and awareness programmes for community organization, water conservation and rain water harvesting, covering 15 wards of Harpalpur. Community is sensitized to recharge ground water through roof top rain harvesting system. Awareness programme has made good impact on the community as they are coming forward for adopting RWHS for ground water recharge.

5 nos. of roof top rain water harvesting connected with dry bore wells for ground water recharge covering 5500 sqft roof area, which will recharge ground water aprox. 332 cum considering avg. annual rainfall of the area 1000mm. Community pond renovation work also initiated.



Community pond renovation



Result of community pond renovation

Time to time service provided by AFPRO

Hydro-Geological Investigation and Geophysical Prospecting for locating suitable bore well sites

Project Background:

The villagers in the Latehar block of Latehar district, Jharkhand are facing irrigation problem for their crops as the groundwater availability is low to moderate in this area. Extracting the existing ground water resources and using it judiciously has become life line for sustenance of these poor marginal farmers.

Project highlights

To solve the irrigation problem, AFPRO was approached by Vedic Society, Latehar, Jharkhand to conduct Hydro-Geological investigation and Geophysical prospecting at different villages to find

out suitable sites for drilling bore wells to provide solar based irrigation facilities for rural communities.

After conducting the feasibility study, 5 sites were selected for drilling bore wells and subsequently solar based submersible pumps were installed with suggestions, recommendations and training for sustainability. Now more than 75 farmers are using solar based submersible pumps for irrigation. They have taken wheat crop cultivation in the Rabi season. Awareness is also generated in the community for water saving irrigation and repair & maintenance of the pumps. The assignment was completed within 3 days and the expense was covered directly by Vedic Society.

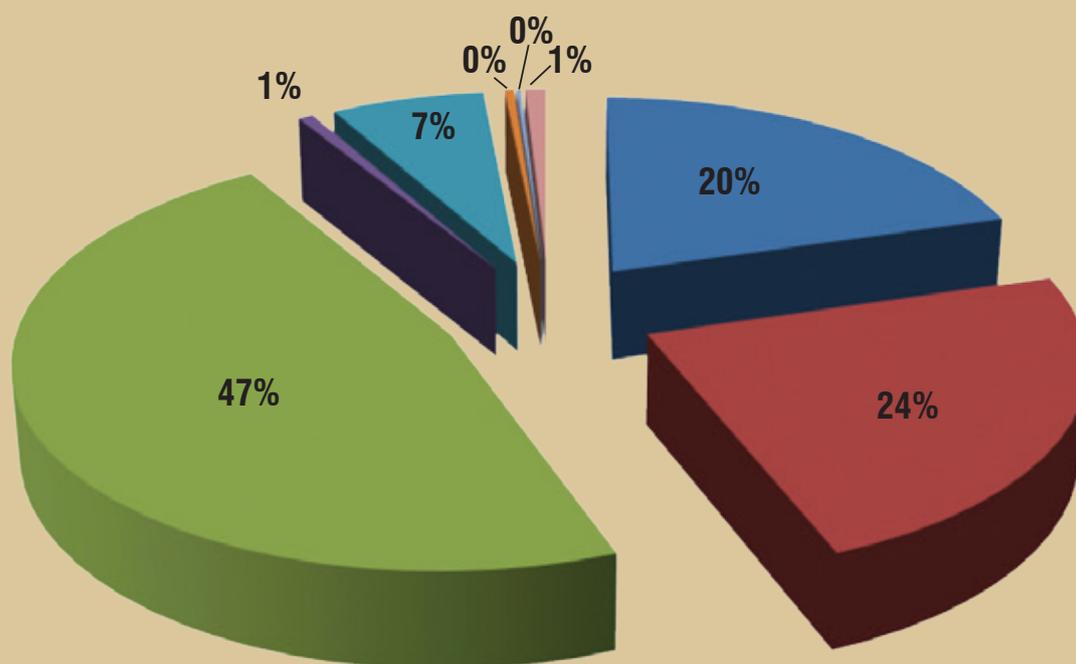
Ground water investigation at Latehar Block



HUMAN AND INSTITUTIONAL DEVELOPMENT

Concentrating on sustainability of project interventions, AFPRO has been constantly focusing on the Institutional building at the local level with structured capacity building support and liaisoning with the local Government for developing end to end projects in the villages. The capacity of any organization and the resources available with it, are to be meaningfully utilized for achieving the desired goals and objectives. Therefore planning and decision making process with all stakeholders is a major activity of AFPRO for its effective functioning and field implementation in a time bound manner. When people get opportunity to participate in every

stage of development and when they are well informed and capacitated, they start owning the project which is a key to sustainable development as it is said "Sustainability of any intervention is only possible when ownership is with users". Hence, theme based trainings, workshops meetings and exposures were part of Human and Institution Development programme both for AFPRO staff and other stakeholders to update their existing knowledge and skills and to create awareness for the new agriculture technologies, empowering them with new progressive socio-technical informations and strengthening the existing local competencies and resources.



Improved Agriculture Practices	34251
Management of Water Resources	17188
Sanitation Health & Hygiene	14902
Livestock and Fishery	4795
Institutional Development	667
Soil and Water Conservation	496
Income Generation	308
Renewable Energy	164

FINANCIAL STATEMENT



ACTION FOR FOOD PRODUCTION : NEW DELHI BALANCE SHEET AS AT 31st MARCH 2019

Particulars	31 st March 2019 (Rs.)
SOURCES OF FUNDS	
Funds and Reserve	86,740,823.49
Programme Balances	113,872,274.35
TOTAL	200,613,097.84
APPLICATION OF FUNDS	
A) Fixed Assets	
i) Gross Block	57,805,479.43
ii) Less: Depreciation	47,243,041.86
iii) Net Block	10,562,437.57
iv) Capital Work in Progress	-
	10,562,437.57
B) Investments	88,201,355.00
C) Current Assets	
i) Interest Accrued on Deposits	3,802,236.54
ii) Recoverable & Prepaid Expenses	1,771,800.55
iii) Cash & Bank Balances	110,534,644.13
	116,108,681.22
D) Less: Current Liabilities & Provisions	14,259,375.95
Net Current Assets	101,849,305.27
TOTAL	200,613,097.84

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

Cyriac Mathew
Manager - Finance & Admn

D. K. Manavalan IAS (Retd.)
Executive Director

Martin P. Pinto F.C.A.)
(Membership No. 085006)
for Pinto M. P. & Associates
Chartered Accountants
Firm Regn.No.006002N

Place: New Delhi
Date: 23.09.2019

ACTION FOR FOOD PRODUCTION : NEW DELHI
INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31st MARCH 2019

Particulars	31 st March 2019 (Rs.)
INCOME	
Programme Contributions	511,118.00
Miscellaneous Receipts	158,343.96
Sale / Disposal of Assets / Old Items	378,970.00
Interest - Savings & Deposits	2,836,902.11
TOTAL	3,885,334.07
EXPENDITURE	
Core Integrated Development Programme	
Human and Institutional Development	1,477,937.00
Socio - Technical Personnel Cost	29,115,451.70
Outreach Support	697,307.05
Information Services	254,556.00
Administrative Cost	
Admn. - Personnel Cost	8,386,109.15
Outreach Support	132,223.00
Office Expenses	4,556,101.09
Hired Services	2,243,871.75
Capital Expenses	119,160.00
ED's Discretionary Fund	-
	46,982,716.74
Excess of Expenditure over Income Transferred to: Programme Fund	(43,097,382.67)
TOTAL	3,885,334.07

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

Cyriac Mathew
Manager - Finance & Admn

D. K. Manavalan IAS (Retd.)
Executive Director

Martin P. Pinto F.C.A.)
(Membership No. 085006)
for Pinto M. P. & Associates
Chartered Accountants
Firm Regn.No.006002N

Place: New Delhi
Date: 23.09.2019

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 programme is recognized as income to the extent of the expenditure incurred on this programme. Contributions, grants, donations and receipts received without any specific direction are recognized as income.
- (b) Funds received for a particular programme / project (other than the core programme) are recognized as Programme 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 Programme 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 Programme 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 unutilized donor funds, which is allocated to the relevant programme 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 than 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 programme 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 reflect the amount invested.

(vi) Retirement Benefits:

- Contribution to Provident Fund is charged to the relevant programme 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 Corporation 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.

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