KAMALNAYAN
JAMNALAL BAJAJ
FOUNDATION

Annual Review
2013-2014
Wardha District Map
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GLIMPSES OF WARDHA PROGRAMME AREA

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<th>Villages Covered</th>
<th>Families Benefitted</th>
<th>Population Covered</th>
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<td>501</td>
<td>69,393</td>
<td>4,16,358</td>
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*Figures in bracket are achieved during the year 2013-14; rests of the figures are cumulative achievement*

VILLAGE INSTITUTIONS

- 2252 Village Institutions Established (1324)

WATER RESOURCE DEVELOPMENT AND SOIL CONSERVATION

- 82 Rivers/Streams of 120.23 running km Area Rejuvenated (61)
- 67 Check Dams Constructed (27)
- 1654 Farm Ponds Constructed (805)
- 1235 Wells Recharged (488)
- 177 Group Wells Constructed (51)
- 799 Bori-bandhs Installed (578)
- 876 Lift Irrigation Devices Installed (653)
- 14 Percolation Tanks Constructed (5)
- 1961 Drip and Sprinkler Irrigation System Installed (938)
- 83 Water Storage Tanks Installed (50)
- 1225.86 Acres of Farm Bunds Formed (126.24)
- 876 Gabion Structures Formed (438)

PROMOTION OF SUSTAINABLE AGRICULTURE PRACTICES

- 6859 Families covered under Convergence of Agricultural Interventions in Maharashtra's, CAIM (4717)
- 2500 Families adopted Better Cotton Initiative Programme (2500)
- 3970 Families Benefitted under WADI Project (1900)
- 830 Farmers adopted Natural Farming (830)
BIOGAS: A BOON FOR THE RURAL COMMUNITY

- 1131 Biogas Plants Installed (513)

INDIGENOUS COWS PROMOTION PROGRAMME

- 2286 Families adopted Indigenous Cows (1043)

WOMEN EMPOWERMENT

- 1156 Self Help Groups Formed (503)
- 15021 Families Covered (5463)
- 1550 Families Benefitted under Rural Enterprise (884)

OUR PARTNERS

- Rural Community of Wardha District
- Sir Ratan Tata Trust (SRTT)
- Carnegie Mellon University, Pittsburgh (USA)
- Cotton Connect South East Asia (BCI)
- National Bank for Agriculture & Rural Development (NABARD)
- International Fund for Agriculture Development (IFAD)
- Government of Maharashtra
- Riverside School, Ahmedabad
- SEWA-Self Employed Women’s Association
CHAIRMAN’S MESSAGE

I am pleased to share annual review of the year 2013-14. A small beginning made in 38 villages in 2009 has out reached to 501 villages in Wardha district. The major cause for agrarian distress in Vidarbha region is rainfed farming and traditional cropping pattern. Despite average rainfall of 1057 mm, total area under irrigation in Wardha is 20% which is much less than state and the national average.

In consultation and active participation of the local community, need based development interventions have been carried out at micro level addressing the distressed agrarian community and environmental concern.

Our integrated Water Resource Development programme focused on rejuvenation of Rivers/streams, construction of check dams, farm ponds and installation of lift irrigation schemes etc. has shown the way to overcome the agrarian distress in Wardha district.

Situation in rivers and streams is the major problems due to damaging of the upper catchment areas across the country. Rejuvenation/revival of river is feasible, cost effective and environment friendly solution to address this gigantic problem. The need based intervention of rejuvenation of rivers for water harvesting has created good impact and strengthened the livelihood of distressed farming families in more than 91 villages. Rejuvenation of river is the model to address agrarian distress not only in Wardha district but across the Vidarbha region of Maharashtra state.

Excessive use of chemical fertilizers, pesticides and insecticides has resulted in declining of agriculture yield and damaging the entire ecosystem. The basic challenge for sustainable agriculture is to make better use of indigenous resources. This can be done by reviving the age old and time tested agriculture practices. A beginning of indigenous cow based natural farming has been made with 830 families in Wardha District. Significant results have been achieved with substantial reduction of input cost and increased yield by using locally available resources.

Self-confidence and entrepreneurial spirit of more than 15,000 women self-help group members has been significantly improved. They have been actively involved in range of income generation activities, rearing of indigenous cows and other programme interventions.

Nature has given abundant resources; one of them is non-conventional energy resources. There is no need to cry for expensive fuel like LPG and fossil fuel. Biogas has been proved as a cost effective, one time investment and environment friendly alternative energy resource.

The pattern of climate is tremendously changing and we must be ready to take precautionary and proactive measures such as plantation of trees on mass scale, adopting appropriate cropping pattern, creating infrastructures like water harvesting, efficient and judicious use of natural resources and new technologies etc. through multi stakeholder participatory approaches.

For the results achieved, I wholeheartedly admire cooperation and active participation of the community of our Wardha programme area who have shown full confidence in us and extended their unequivocal support in planning and implementation of all the development interventions. These achievements have been made possible with the dedicated efforts of all our team members.

I would like to extend my heartfelt acknowledgment to Sir Ratan Tata Trust, National Bank for Agriculture and Rural Development, Government of Maharashtra, International Fund for Agriculture Development, Cotton Connect, local community and all others who have joined us in our journey of reaching out to the people of Wardha district.

-Shishir Bajaj
FOREWORD

Traditional cropping pattern and lesser area under irrigation are the major cause of agrarian distress in Wardha district. Fulfilling the need and exploring the potential of the people and the area, we have focused on innovative and integrated water harvesting measures, diversified cropping pattern and encouraged rural enterprise for strengthening livelihood of the rural community.

We have rejuvenated rivers/streams in 91 villages along with various other water harvesting measures like check dams, farm ponds, well recharge and lift irrigation schemes with active participation of local community. A total 82 rivers/streams running a length of 121 Km have been revived. River flow has increased substantially from a season to 8/10 months a year, water table has increased by 8 feet, cropping intensity has increased from 1 to 2/3 crops. Water logging problem on the fallow land on both the sides of the river/stream banks has been resolved. Cropping pattern has been shifted from mono-cropping to diversified crops. Agriculture yield has increased significantly for e.g. in cotton crop, from average of 5 quintal/acre it has increased to an average of 13 quintal/acre. Under the Better Cotton Initiative a total of 2,500 farmers have been benefitted wherein the average cost of cultivation has reduced by 15% and 25% increase in yield is witnessed. 3,970 farmers have been covered under Wadi project, which has been proved to be a sustainable agriculture model. As a result of water harvesting measures and agro-based livelihood interventions, total 88,349 acres of land and 69,393 families have been benefitted.

Looking at the results of innovative rivers/streams rejuvenation in our ‘Wardha Model’. The Govt. of Maharashtra has also approached us for collaboration to replicate the same in more 88 villages of Wardha district.

With consistent efforts of our team, 1,156 women and men Self-help Groups have been formed wherein 15,018 members have been actively participating in various programmes. Developmental efforts for women empowerment has resulted in the springing up of 120 different kinds of rural enterprises like flour mills, food processing items, grocery shop, trading in women clothing and accessories, crane machines for well excavation etc. This has strengthened their livelihood, improved socioeconomic condition and they are playing a more active role in decision making both at home and community level. 1,550 women members have initiated income generation activities wherein their additional income has increased up to ₹ 36,000 per annum.

Indigenous cows are an indispensable and integral part in the practice of natural farming. As awareness on the virtues of indigenous cows is increasing their importance and welfare is also increasing with the rural community. 2,286 needy families have been supported and they are reaping the benefits of indigenous cows. Average additional income of ₹ 18,600 from milk is increased per annum per family. This is bringing back peace and prosperity to them.

As part for promotion of non-conventional energy resources, Bio-gas programme is increasingly becoming popular across the district. I feel proud to note that our Wardha district community has successfully adopted largest number of Bio-gas (1,131 plants) in any single district of the Maharashtra State.

Looking to the results achieved through participatory approaches, partners like Sir Ratan Tata Trust, NABARD, Govt. of Maharashtra, International Fund for Agriculture Development and Cotton Connect have also made collaboration with us to increase the geographical coverage through our integrated water harvesting measures and agriculture development interventions.

I wish to thank all our team members for their dedicated efforts, all the stakeholders and the community at large for putting their confidence in us to reach out in 501 villages and reaffirm our commitment to cover all 1006 villages by 2020 to make Wardha a model district.

- Kushagra Nayan Bajaj
PREAMBLE

With the various projects we undertake, our main aim is to help the people of Wardha stand on their own feet and also to give them a sense of self worth, pride and dignity. All our activities are not mere projects but acts of service and love.

Looking to the need of the people and the area, KJBF has adopted participatory approach of community development since beginning. Continuous trainings, awareness and need based integrated development interventions with active involvement of the community has increased their prosperity and brought about a more proactive mind set, putting them on the road to self reliance.

As a result of diversified cropping pattern and adopting innovative practices agriculture yield has increased up to 45% while cost of cultivation has reduced by 52%. In case of natural farming (plant and indigenous cow based) yield has increased up to 15 % and cost of cultivation has reduced by 75%. These promising results are encouraging in interventions as they are proving to be most sustainable for them.

I would like to quote few of examples from 501 programme villages of Wardha which are like torch bearers for many others. Design for Change (DFC) is an exciting new programme introduced by KJBF to 32 schools. DFC helps children tap into their inner potential and gives them wings to fulfill their dreams.

"After attending the DFC programme organized by Bajaj Foundation, all students of my school were inspired and we planned and constructed a culvert to cross a stream passing near our school. This was neither imagined by us nor by villagers- Sheetal student of Class Xth", 11 other projects like repairing of road, purchasing of photo copy machine, digging of bore well etc. have been completed by the school children.

Putting faith in natural methods of farming in his 10 guntha (0.25 acre) of land, Arun Chichgrhaire of Shivangaon village managed to reduce cost of cultivation by 65 %. Boosted by his confidence he started retailing of vegetables in Wardha town and enjoyed net profit by 26%!

Smt. Sangeeta of village Sawangi purchased an indigenous breed of cow. The milk requirement of her family is fulfilled and by selling 3 liter of milk daily and Khawa (sweet), she earns ₹. 3,750 per month. A small financial support with technical backing helps her and like women dairy farmers come out of poverty.

Biogas is increasingly become popular among the people of our programme area. Bothali (Hetti) village shows the way, “28 out of total 53 families, i.e. 53% of the village households are covered under the biogas Programme”. “Rajcha jagnyachya Rahatgadgat hoti rajchi chinta indhanachi, biogas mule na chinta indhnachi, dodde aani hrudyachya aajarachi” - Sunita Sapkal, Pipari (During the journey of everyday life I was worried about the arrangement of fuel for cooking but due to Bio-gas I am free from worries about fuel wood as well as eyes and heart problems - Sunita Sapkal, Pipari)

KJBF’s promotion of over 120 Rural Enterprises is transforming many lives. “Mirchi Chakki mule marat paryant kamavnyacha aadhar milala” - Nalu Rithe, Pimpalgaon (Due to chilli processing mill I have get a support of livelihood till the end of my life - Nalu Rithe, Pimpalgaon)

“Naresh Shivarkar, Deoli- "Bajaj Foundation mule Jivanala naveen disha milali Aaechya gataton mala vyavsaaya karta aadhar milole aani mazya jivnala naveen valan milole" (Naresh Shivarkar, Deoli- “Due to Bajaj Foundation I have get a new direction for my life by getting support for income generating activity through my Mother’s SHG and my life get new lifeline”).

I regularly visit and interact with the people of Wardha. I am heartened and energised on seeing their active participation in all the community development interventions and the way they are blossoming and blooming in the unfavorable conditions in which they live.

-Apoorv Nayan Bajaj
Jamanalal Bajaj was the founder father of Bajaj Group. He was humanitarian, freedom fighter, philanthropist, social reformer and a devoted follower of Mahatma Gandhi. He was adopted as the fifth son by Gandhiji. He took an active part in the Indian freedom struggle and constructive work propounded by Gandhiji. When Gandhiji left Sabarmati Ashram, at the insistence of Jamanalal and other national leaders, Gandhiji established Sewagram Ashram at Wardha on the land donated by Jamanalal and stayed there for 10 years. He was the only person who refused the honours of ‘Honorary Magistrate’ and ‘Raibahdur’. He acted on what he narrated. A social reformist, who in his own house stopped ‘Pardah System’. He opened his family Laxmi-Narayan Temple for Harijans. This was the first temple opened for untouchables.

Jamanalalji also undertook pioneering work in the field of Gau-sewa (Cow protection), upliftment of the ‘dalits’ or the downtrodden, education of women, propagation of Hindi, spread of Khadi (hand spun and hand woven cloth) and the development of khadi and village industries.

Kamalnayan Bajaj was the elder son of Jamanalalji. He had the privilege of being raised under the shadow of three great souls - his father Jamanalal Bajaj, mentor Mahatma Gandhi and teacher Vinoba Bhave. And he did them proud. He worked to fulfil his father’s wishes and implemented trusteeship concept promulgated by Gandhiji.

Kamalnayanji was an original thinker and a person of contrasting traits. He was a capitalist with a social outlook and a politician with a conscience. He fought against the shackles of the British Raj while simultaneously consolidating his business enterprises. In spite of his preoccupation with business and politics, Kamalnayanji did his substantial bit for life-altering causes like education, medical care, famine and flood relief. He even found time to promote art, literature, culture and Ayurveda.

Kamalnayan Bajaj is remembered not only as a philanthropist and sharp businessman, but also as a multi-faceted human being.
हमें अपनी खुद की कर्मचाय शक्ति को बढ़ाना है और कुछ ठोस काम प्रत्यक्ष में करके दिखाना है।

यदि समयानुकूल कार्य नहीं किया गया तो पश्चाताप ही शेष रहेगा।

जहां पाई पाई का सदृशयोग हो, वही दान देना चाहिए।

हमारे जहां जब तत्त्व की जरूरत है, दिखाने से काम चलने वाला नहीं है।

धन की कमी से कार्य नहीं रुकते, रुकते है तो सच्चे कार्य करने वाले की कमी से.
सम: शत्रों च मित्रेः च तथा मानापमानसु:।
शीतोष्णसुखु:खे:पु सम: संगविर्यंजतः॥१८॥
तुल्यनिन्दास्तुतिमौल: सन्तुष्टो येन केनचित्।
अनिकेत: स्थिरमतिर्मभक्तिमाने प्रियो नर:॥१९॥

One who is equal to friends and enemies, who is poised in honor and dishonor, heat and cold, happiness and distress, fame and infamy, who is always free from contaminating association, always silent and satisfied with anything, who doesn’t care for any residence, who is fixed in knowledge and who is engaged in devotional service such a person is very dear to Me. (18-19)

ये तु धर्म्यमूर्तिमिदं यथोवत्क: पर्युपासते।
श्रद्धाना मत्तरम भक्तास्तेदतीव मे प्रिया:॥२०॥

Those who follow this imperishable path of devotional service and who completely engage themselves with faith, making Me the supreme goal, are very, very dear to Me. (20)

प्रोत: स्लोकः १८, १९, २०
Source: Verses: 18, 19, 20
अध्यायः १२ श्रीमद् भगवद् गीता
Chapter: 12 Shrimad Bhagwad Gita
Vidarbha region is located in the eastern part of Maharashtra state of India. It comprises of 11 districts. The traditional crops of Vidarbha region are sorghum (jowar), pearl millet (bajra) and rice. Vidarbha constitutes 15.6 percent of Maharashtra’s GDP. Vidarbha also is largest producer of oranges. It also produces 5.5 mn. metric tons per annum (MTPA) of Soyabean, 1.9 mn MTPA of Pulses, 1.1 mn MTPA of Paddy and a variety of other fruits and vegetables. [Source: Maharashtra Industrial Development Corporation (MIDC)].

Wardha named after river “Wardha” that flows through it, has 1,006 villages in its eight blocks. In 2011, the total population of Wardha is 1.29 million (12,96,157), out of the total Wardha population, 4,20,873 population (32.47%) lives in urban regions whereas 8,75,284 population (67.52 %) of Wardha districts lives in rural areas of district. The total geographical area of Wardha district is 6,29,000 ha. out of which 4,26,200 ha. area is under cultivation. Around 3,83,300 ha. area is covered under Kharif season and 43,600 ha. area is under Rabi season. Only 1,28,326 ha. of land comes under irrigation whereas the remaining land is rainfed.
The important crops are cotton, sorghum, soyabean and pigeon pea in Kharif season, wheat and gram in Rabi season and ground nut in the summer season. The agricultural economy of Wardha district is increasingly becoming a cash-crop economy.

The agro-climate of Wardha is characterized by hot, dry, and sub-humid bio-climate with dry summers and mild winters. Average rainfall of Wardha district is 1,057 mm. The run off takes away the fertile top soil which leads to severe soil erosion. Soil erosion adversely affects the fertility status and land use. About 10 percent of the eroded material usually gets deposited in the water reservoirs resulting in silting up of the water bodies and thereby reducing their water storage capacity.

KJBF has implemented various projects to address the above issues for that water harvesting structures are constructed, Agriculture projects such as CAIM, BCI, Wadi and Natural farming to minimize the input cost, Promotion of Indigenous Cow, Income Generating activity and Bio-gas programme to achieve the overall progress of the rural area by developing sustainable livelihood models. We are focusing to promote intercrop and micro-irrigation systems to secure the flow of income with utilizing natural resources.
Kamalnayan Jamnalal Bajaj Foundation (KJBF) has identified problems faced by the rural community of Wardha District and has adopted participatory bottom-up approach with an active involvement of community in planning, implementation and management of all need based development interventions. KJBF organizes village meetings, participatory rural appraisals measures to understand issues and address them. It also makes an effective use of street plays, video shows, regular training Programmes, awareness camps, exposures visits and demonstrations that has strengthened the outreach of KJBF in 501 villages of Wardha district.

KJBF has been implementing various projects either independently or in collaboration with the partners. The various community based organisations are instrumental in implementation of the projects. A brief summary of the Projects are:

**Self-Help Groups** have emerged as crucial instruments for women empowerment and in
Involvement of community creates ownership and ensure sustainability; construction of Bori-bandh on Yashoda River at village Sonegaon (A) by members of SHGs

development of their leadership abilities. This has also led to improvement in their quality of life. The SHGs women have also established their own platform, save regularly, share their views and pool their resources to strengthen the livelihood of their families. KJBF has promoted Self Help Groups with the sole objective of strengthening the livelihood of the family focusing on women development.

Village Development Committees (VDCs) are voluntary associations of village people for local administration. The role of VDCs in the Programme is to select the site for the construction of infrastructure, selection of beneficiaries and collection of beneficiaries’ contribution, monitoring and managing the entire project activities and resolve the local issues related to the project. It is an excellent form of association by the villagers and it aims to achieve a strong socially empowered society.
Producer Groups consisting of 15 to 20 producers, engaged in producing similar products (Agriculture based) that are organized to reduce cost of production by applying Integrated Nutrient Management and Integrated Pest Management, achieve economies of scale by purchasing all the required agriculture inputs collectively, improving marketing efficiencies and improve their profits by managing their crop from production through processing.

Learning Groups are the informal group consisting 25 to 40 farmers. They are responsible to learn through meetings and trainings, implement the learnt agriculture practices in their own field and share their experience with the other farmers under Better Cotton Initiative Programme.

Wadi Mitras’ selected from the each village and they act as resource person. They are trained by KJBF staff on various agriculture practices like preparation and application of natural manure, natural pesticide and insecticide (Jeevaanrat, Agniastro, Dashpriani ark and Bramhastra) from the locally available natural resources like plants, cow dung, cow urine and water.

Water User Groups are a group of 5-10 farmers who have come together for the equitable sharing and efficient management of the water.

Income Generating Activities (IGA):

KJBF promotes income generating activities in the rural area for poverty alleviation and development through assisting in starting up of small business activities like Beauty Parlor, tailoring, Hair Salon, Dal and Flour Mills, Catering, Garden nursery and Carpentry etc. Total 120 small business activities have been identified by the beneficiaries through IGA. These activities are helpful in developing the entrepreneurship skills in the rural people and make them economically self-sustainable.

Design for Change Programme:

It is one of the largest global movements designed to give children an opportunity to express their own ideas for a better world and put those ideas into action. The challenge is to ask the students to do four very simple exercise: Feel, Imagine, Do and Share. As a result of this, young school children are coming forth with brilliant ideas that are challenging the age-old superstitions of the rural communities. Through such ideas they are able to raise money to finance photo copy machine, design and constructed culvert, constructed and leveled 1 KM long road on their own. Children are proving that they have what it takes to be the change that they wish to see in the world.

Water Resource Development:

Wardha receives 1,057 mm of average rainfall annually but is erratic. Water table of ground water is not up to mark so that most of the wells dry up just after the monsoon. Farmers find it difficult to irrigate their crop even in Rabi season due to negligible water harvesting structures in the rural area. In order to address these issues, in consultation with local community, KJBF has identified various water harvesting measures like rejuvenation of rivers/streams, construction of check dams, percolation tanks, farms ponds, recharging of existing wells, promotion of lift irrigation, group wells etc. along with soil & water conservation measures such as farm bunding and Nala plugging. Every drop of water in every field and village needs to be conserved for water harvesting structures and utilize it to fulfill the daily needs of farmers. KJBF has been putting continuous efforts through capacity building activities, women empowerment, crops planning and focusing on bio-diversity and ecosystem conservation to make the water resource development programme successful.

Promoting Sustainable Agriculture Practices:

Most of the farmers in Wardha district depend solely on one crop due to shortage of irrigation and lack of awareness in agriculture practices, with no allied agriculture income add to the family finances. It was against this backdrop of a raging crisis, drop in incomes, increase in the production costs and generally a bad agriculture scenario that the KJBF intervened and has put all its efforts in making the farming more economical. It has also been able to address other issues related to agriculture by implementing various agriculture based projects in rural Wardha.

Better Cotton Initiative (BCI):

BCI intends to make global cotton production better for the people who produce cotton in suitable environment and for the sector’s future. BCI works with a diverse range of stakeholders to promote measurable and continuing improvements for the environment, farming communities and the economies of cotton producing areas. KJBF has been implementing the project in 27 villages of Wardha district. The project has reduced
the cost of cultivation and increase the production of cotton crop in the year 2013-14.

**Convergence of Agricultural Interventions in Maharashtra’s (CAIM)**:

This Programme was designed for the six distressed district of Western Vidarbha i.e. Akola, Amaravati, Buldhana, Wardha, Washim and Yavatmal in collaboration with Maharashtra Govt., Sir Ratan Tata Trust - SRTT, International Fund for Agriculture Development – IFAD and local community. The overall goal of the project is ‘to contribute to the development of resilient production, sustainable and diversified households, on-farm and off-farm livelihoods, allowing households to face production and market risks without falling back into poverty and distress’. The projects’ target groups are the rural households belonging to the Schedule Castes, the Schedule Tribes, landless laborers, the rural women, the small & marginal farmers and the farmers under agrarian distress. To achieve these objectives, KJBF has been working in the two clusters (Seloo and Samudrapur) of the Wardha district and covered 51 villages under the Programme.

**Promotion of Non-conventional Energy Sources**:

Biogas referred to as ‘gobar’ gas, consists of methane and carbon dioxide, and perhaps some traces of other gases, notably hydrogen sulphide (H₂S). Its exact composition will vary, according to the substrate used in the methano-genesis process. Biogas provides clean and particulate-free source of energy also reduces the likelihood of chronic diseases that are associated with the indoor combustion of biomass-based fuels, such as respiratory infections, eye cataract, ailments of the lungs; bronchitis and asthma. The use of Bio-gas slurry as manure also increases agricultural productivity. All the agricultural residue and dung generated within the community is available for anaerobic digestion, whereas previously, a portion would be combusted daily for fuel. Economically, biogas systems have been prove to be cost-effective in the rural area.

**Promoting Agro-based Livelihood**:

**a. Promotion of Indigenous Cow Programme**

Cow is honored as ‘Gaumata’ in Indian mythologies. Indigenous cows yield lesser milk than the exogenous cow, but KJBF is trying to promote for reasons other than it. It has been trying to focus on the overall utility of the cow for the betterment of the people in the region. KJBF strongly believes such kind of holistic perspective on the best alternative livelihood option for the farmers in the long run.

The sole focus of the KJBF’s indigenous cow programme is to provide the farmers in the region with an alternative source of livelihood along with agriculture. Such kind of focus entails a definitive strategy and approaches. KJBF’s focus on intense capacity building programme for entire team and support for the farmers in all aspects. KJBF has set up revolving fund that helps the farmers in buying an indigenous cow. This was again followed up by multi-level awareness generation activities on indigenous cow. Indigenous animals are in general sturdy and endowed with qualities of heat tolerance, resistance to tropical diseases and ability to thrive under extreme nutritional stress.

**b. WADI Project**:

Wadi is a small orchard on one acre of land that consists of fruit trees which is suitable to the area or a combination of horticulture with forestry trees. Two or more fruit tree crops are selected in wadi model and are adopted with other agriculture practices like cultivation of intercrops (soyabean and vegetable crops) during the initial stages of wadi. This practice helps in minimizing biological and market risks and restoration of denuded land through soil and water conservation measures. This programme aims at reducing the migration of the tribal/rural peoples to urban areas by providing them a livelihood in the form of income and basic necessities like fuel-wood, timber and cattle fodder.

The Wadi model promoted by KJBF consists of a horticulture plantation of 25 Mango, 20 Indian Gooseberry (Amla), 20 Guava plants and 8 Lemon trees with 260 forestry plants for live fencing on one acre of land. This combination of three fruit plants has been selected so as to get the farmers income throughout the year.
Kamalnayan Jamnalal Bajaj Foundation has formed various community based organisations to support various development activities. These community based organizations are instrumental in planning, implementation and management of all the need based development interventions. Self Help Group is not only about economic independence but also has a strong social aspect in bringing out social transformation. KJBF has aspired to bring in changes into the lives and livelihoods of thousands of women of Wardha district. There are 32 SHG volunteers and 5 Master volunteers who are currently leading the SHG initiative of the KJBF in all the blocks of Wardha district. Capacity building programme (trainings, exposure visits and workshops) has arranged regularly. KJBF also provides support at the village level in conducting meetings, trainings, record updating, and creating awareness on various issues faced by SHG members. All the 15,021 women members have resolved to initiate their own non-banking finance company.

Mahila Melava (Fair) was organised in Arvi, Seloo and Deoli block in the year 2013-14 to provide a platform for the women. This platform enabled them to undertake small business through the local trade fair and helped them articulate on various issues related to it. Around 2500 women was attended the melava (Fair). Each of the 50 stalls on different activities generated an income of approximately ₹ 1,500 in a day. KJBF Chairman Shri Shishir Bajaj was felicitated by the women with “Sanmanpatra” as a token of love and gratitude towards the Bajaj family for their work and attachment towards the people of Wardha district.
Shishir Bajaj encourages members of SHGs Women to strengthen their livelihood through rural enterprise

Achievements of SHG (2009-2014)
- 1,156 SHGs are formed out of that 459 are Male SHGs and 697 are Female SHGs
- 15,021 Families are covered under SHGs
- ₹ 1.27 Cr. of total savings of the members.
- ₹ 4.81 Cr. Credit availed from internal, KJBF and Banks.
- 12,800 members availed credit.

Achievements of Income Generation Activities (2009-2014)
- 1,550 families supported under Income Generation Activity
- ₹ 4,500 average income earned monthly by each family.

International Women day was celebrated on 8th March 2014 in Deoli block. Around 741 SHG members participated in the Programme. The invited guests addressed the women on issues of dowry, women self-protection, pension schemes and laws for the safety of women. SHG members also enacted mono-acts on various issues such as problems faced during the last stage of one's life, importance of SHG, problems related to alcoholism and on the importance of toilets. KJBF honoured SHG volunteers for their work with a Shawl and Shrival (coconut).

Income Generation Activities through SHG:
Earning a reasonable livelihood is the key to the dignity of every individual. Any villagers’ livelihood is based on traditional agriculture and wage labour. The most important interventions are those which provide employment and income generation opportunities to the rural poor in their own area, enabling them to enhance their living standards. KJBF have initiated interest free financial support to encourage the different small Income Generating Activities (IGA) to support the family as an alternative source of income. KJBF also motivates SHG members for developing leadership, improving entrepreneurship skills, reduced dependency on external market and creating market opportunities by organising Rural Trade Fair at the village level. SHG members have initiated different 120 types of small enterprises. Working together in groups and capacity building has strengthened their self-confidence, changing their traditional gender-specific roles and venturing into the social entrepreneurship.
Tailoring makes the Dhammadai empowered and her work encourages other women to generate money by adopting rural enterprise. Dhammadai said that she want to make her customer feel comfortable with her stitched clothes.

**Leading a life of self-sustenance through IGA**

Smt. Dhammadai Charandas Kamble is an active member of Samta Mahila SHG from Ghodegoan village, Deoli block of Wardha district. Dhammadai and her husband are daily wage labourers. As agriculture is seasonal, it becomes very difficult for them to make the ends meet all through the year. Though, both of them knew about tailoring skills but were unable to afford a stitching machine. As Dhammadai was an active member of SHG, KJBF offered her a revolving fund of ₹. 5,000. Dhammadai was also able to raise the remaining fund of ₹. 3,000 through inter loaning from SHG and ₹. 2,000 from her personal savings. She brought a sewing and piko fall machine with it. Now she earns around ₹. 300 daily. She has brought a motorcycle for her son and educating her daughter in Pulgoan town with the money that she has been able to earn by tailoring. She has plans to start a small tailoring shop with 2 more sewing machine and interlock machines in the near future.
Reaping Profits through IGA

Six members of Shiv Mahila SHG of village Vijaygopal of Deoli block decided to start sari selling business with the support and motivation of KJBF. All the members belong to marginal farmer families. After the motivation from KJBF team, they decided to start a sari selling business. KJBF was approved financial support of ₹ 8,000 to each member. With the amount of ₹ 42,000 they purchase sari from Amravati wholesale market. They made a net profit of ₹ 25,000 in the very first wedding season. The confidence levels have shot up amongst them and they are aiming at improving their product line with petticoats, towels, dress material, blouse pieces etc. This group has become a source of inspiration and example of team work for all other groups.

Shiv SHG Women, the best example of hand holding to start the income generation activities, inspiring and building confidence among the other SHG members
Promotion of Design for Change

Shri Shishir Bajaj and Apoorv Bajaj with school children and teachers of Mahatma Vidhyalaya in village Yesamba.

KJBF has initiated “Design for Change” programme in 11 schools of Wardha district. This programme has been conceptualized by “River Side School” Ahmedabad. The objective of the project is to empower students and enable them to fulfill their heartfelt desires and dreams. Video shows depicting successful projects undertaken by children world over are shown to students along with an orientation session. Consequently four easy steps are adopted in execution i.e., Feel, Imagine, Do and Share. Students find out the solution on the problem and act on it in mission mode “I CAN” by using their own ideas, energy, pocket money and hand to hand efforts.

FEEL : Students of Mahatma Vidyalaya in village Yesamba, brain stormed together to list out the problems they faced in their regular life. They prepared a list of their problems after feeling what issues were most relevant to them. Then they kept all the topics in front of the class for voting. The maximum numbers of vote went for construction of a small culvert on the stream. A small stream is present between the village and school. The students have to cross the stream everyday to attend the school. It becomes much difficult for them to cross it during the rainy season. Thus, it limits their access to education and healthcare and also restricts economic opportunity. It affects everyone, young and old.

IMAGINE : The students had to think hard on the fund and material collection to construct the culvert. They pondered over several ideas on how to construct the culvert and wrote down all the points on blackboard/chart and by thinking (imagining) finalized their strategy. After discussions, they decided to take help from the Gram Panchayat, small business men and the villagers. They would collect funds in the form of cash or kind if someone wanted to contribute towards this noble cause. It was a movement of sorts towards unifying all the ideas and moving forward, not only in

Achievements of Design for Change (DFC)

♦ 1,185 Students of 11 schools are actively participated in the projects.
♦ ₹ 4,50,000 contribution collected by the students for implementing small project to solve their problems which they observed in their surrounding.
physical terms of getting to school but in the
movement of turning an idea into a reality!

**DO:** They convinced the Gram panchayat
members and villagers for the construction of culvert
(small bridge) on the stream. They collected funds in
the form of money, some villagers were ready to
work as volunteers for the construction of culvert.
Few of the villagers donated bricks, sand, stones and
other material required for the construction. They
collected a total amount of ₹ 18,000 from the
villagers and raw material as kind donation. After
continuous efforts and overcoming several obstacles
a small culvert was made ready in two months. It was
an amazing experience for the students, teachers,
villagers as well as KJBF team.

**SHARE:** The school students shared all their
activities with KJBF in a video film. This video has been
shared with river side school through this story has
reached to a global audience. Students emphasized
the need for a small hope, determination and selfless
work in turning small things big.

This success story reflects that children have
tremendous inner wealth which when harnessed
properly has yielded spectacular results for both the
community as well as the holistic development of
students. The students have emerged to be more
extroverts, courageous and willing to take positive
steps for the greater good. The “Design for Change”
Programme has been facilitated by KJBF team.

**The Other Motivating Stories of DFC:**

- Students of Yashwant High School of village Zadshi
play very important role in Government health
project to stop the outbreak of Dengue through wall
paintings, village cleanliness campaign for regular 3
days, fill up all the pits of wastage water with soil.

- Students of Sane Guruji High School of village Vadad
arranged a state bus through submitting application
and meeting with Collector for the students coming
from other villages and also collect money for wire
fencing to protect school ground from stray animals.

- Students of Indira High School, village Bhankheda,
construct the wall compound to protect their school
and rejuvenate the streams by collecting
contribution from villagers.

- Students of Indian Military School construct a road of
970 meter by removing large stones, leveling the land
with handmade bulldozer and build the road with
concrete and cement.

- Sane Guruji Vidyalay, village Nandora face the problem
of open defecation in the school ground as well as path
of school. With the help of Nirmal Bharat Abhiyan Govt.
scheme students are able to provide toilets for 150
households and for the management, it is linked to
Gram Panchayat. Also build wall compound to protect
the school ground from other activities.

- Students of Indira High School, village Salai observed
that the villagers and students face the problem of a
photo copy of notes and some other important
documents. The facility of photocopy machine was
available only in village Hingni which is 15 Km far from
Salai village. For ₹ 2 photocopy a person would spend
₹ 50. After discussion students collect contribution
from school students as well as villagers and purchase
photocopy machine of ₹ 14,800/- and in such a way
the students solve the problems of village.

- Students of Yashwant High School, village Ghorad
observed that every person in household have some
bad habits of alcohol, smoking and chewing tobacco.
The school children decided to make their village free
from these bad habits. They create awareness among
the villagers through wall paintings, rallies, arranging
health camp, street plays and Bhajans and Kirtans. As a
result villagers realise their mistake, come together and
remove the tobacco shops around the school campus.

- Students of Model High School, village Rohana
observed that the birds were died due to shortage of
water and grain in urban area during 48 degree
temperature in summer season. To address this issue,
they hanged earthen bowls for water and grain on the
tree so that the birds get water and grain on tree itself.
They create awareness among the villagers to maintain
ecosystem by saving birds. They arranged such types
of (water and grain bowl) on 60 different places.

- Ramdas Aathavale Adivasi High School, village
Sindhiwihiri face the problem of drinking water. For
drinking water, school children depend on the wells of
nearby farms. By collecting contribution from villagers
and parents a bore well is constructed in the school
ground to fulfill their drinking water need.
Enhancement of Agriculture based Livelihood

Water Resource Development Programme

By reviving river at Bambarda, villagers resolved their drinking water as well as problems of water for irrigation through working together.

Achievements and Impact of Water Resources Development Programme (2009-2014)

- 23,736 Total families benefitted
- 67,898 Acres of total land benefitted
- 3,544 Acres of lands has been protected from water logging
- The water flow has increased upto 9 to 10 months in the rivers and streams
- Water table has increased up to 8 to 12 feet
- Cropping pattern has shifted from mono-cropping to diversified cropping pattern
- Cropping intensity has increased from 1 to 3 Crops
- Average yield has increased 65% in cotton and 45% in Soyabeen by adopting good agriculture practices
- Average income per family increased from ₹ 7,500 to ₹ 20,500 per annum
In India, the total area under irrigation is 43% whereas in Maharashtra it is only 16%. Wardha receives 1,057 mm of annual rainfall and the area under irrigation is 8%. The reason for this is due to fewer efforts in water harvesting, conservation measures and lack of resources to invest in irrigation infrastructure (wells, lifting devices etc.) In most of the villages of Wardha district, availability and access to water for irrigation are the major problems that have adversely affected the livelihood of the agrarian community. Cotton and soyabeane are the major traditional crops in the area with an average yield of 4-5 and 3-4 quintal per acre respectively.

In order to address such issues, KJBF in consultation with the local community identified various water harvesting measures like rejuvenation of rivers / streams, construction of check dams, percolation tanks, farms ponds, recharging of existing wells, promotion of lift irrigation, group wells etc. along with soil and water conservation measures such as farm bunding and Nala plugging. KJBF also ensured efficient and judicious use of available water for irrigation through promotion of micro irrigation devices like drip and sprinklers irrigation systems and less water intensive crops especially horticulture crops. In view of the above, Navajibhai Ratan Tata Trust has also collaborated with KJBF in 90 villages under the project titled “Support to farmers in Vidarbha for providing protective irrigation to standing Kharif crops during water stress period through rain water harvesting.”

A. Rejuvenation of Rivers/Streams:

Most of the seasonal small rivers and streams flowing through Wardha have silted up and almost lost their existence. The water carrying capacity has also reduced drastically in many places resulting in water logging, reduced water flow in the rivers/streams, reduced ground water recharge and lesser availability of surface storage of water. Farmers have suggested rejuvenation of rivers/streams by de-silting, deepening and widening of rivers/streams and bring them back to their original forms. KJBF has incorporated innovative techniques in rejuvenation of rivers/stream in order to maximise surface storage as well as ground water recharge. Earthen barrier have been left at intervals of 50 meter length, 8 meter width and 2 meter depth. It acts as earthen/natural water harvesting structure. This innovative method has emerged as an alternate cost effective and environment friendly alternative. The investment for rejuvenation of Rivers/streams is ₹ 10 Lac/Km out of which 15% is contributed by the community while 85% is supported by KJBF. 3544 acres of land protected from water logging through river revival.

Table 1: Rivers/Streams Rejuvenation at a Glance

<table>
<thead>
<tr>
<th>No.</th>
<th>Details of interventions</th>
<th>Achievement in 2013-14</th>
<th>Cumulative till March, 2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Rejuvenation of Rivers and Streams (Number)</td>
<td>61</td>
<td>82</td>
</tr>
<tr>
<td>2</td>
<td>River and streams rejuvenated (Km)</td>
<td>67.20</td>
<td>120.23</td>
</tr>
<tr>
<td>3</td>
<td>Water harvested in Cubic Meter (In Lac)</td>
<td>139.97</td>
<td>153.55</td>
</tr>
<tr>
<td>4</td>
<td>Wells Benefitted</td>
<td>879</td>
<td>1296</td>
</tr>
<tr>
<td>5</td>
<td>Land covered under Irrigation (Acres)</td>
<td>13923</td>
<td>23164</td>
</tr>
<tr>
<td>6</td>
<td>Villages Benefitted</td>
<td>60</td>
<td>91</td>
</tr>
<tr>
<td>7</td>
<td>Families Benefitted</td>
<td>3074</td>
<td>5599</td>
</tr>
</tbody>
</table>
Construction of low cost check dams after river revival has overcome water logging problem, ensured support irrigation during dry spell, cultivation of crops in Rabi season thereby increased cropping intensity, water flow and ground water table.

B. Construction of Check Dam
The Check Dams have been constructed across the Rivers/Stream bed. In many cases, it is constructed after rejuvenation of Rivers/streams. This has resulted in increasing water storage in Rivers/stream, increased water flow and ground water recharge.

<table>
<thead>
<tr>
<th>No.</th>
<th>Details of interventions</th>
<th>Achievement in 2013-14</th>
<th>Cumulative till March, 2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Check dams Constructed</td>
<td>27</td>
<td>67</td>
</tr>
<tr>
<td>2</td>
<td>Water harvested in Cubic Meter (In Lac)</td>
<td>3.43</td>
<td>14.52</td>
</tr>
<tr>
<td>3</td>
<td>Wells Benefitted</td>
<td>204</td>
<td>436</td>
</tr>
<tr>
<td>4</td>
<td>Land covered under Irrigation (Acres)</td>
<td>3475</td>
<td>7997</td>
</tr>
<tr>
<td>5</td>
<td>Villages Benefitted</td>
<td>19</td>
<td>44</td>
</tr>
<tr>
<td>6</td>
<td>Families Benefitted</td>
<td>1074</td>
<td>2893</td>
</tr>
</tbody>
</table>

River Revival Brings Prosperity and Improves Ground Water Level
Six members from village Bamarda having 46 acre land under cultivation. Before the river revival, the farmers grow only cotton on 44 acre (Yield 192 quintal), pigeon pea on 23 acre (Yield 54 quintal) wheat on 5 acre (Yield 21 quintal), soyabean on 7 acre (Yield 31 quintal) and gram on 4.5 acre (Yield 13 quintal). After River revival, improve in production of crop cotton on 44 acre (Yield 384 quintal), pigeon pea on 26 acre (Yield 112 quintal), wheat on 5 acre (Yield 40 quintal), soyabean on 7 acre (Yield 53 quintal) and gram on 4.5 acre (Yield 24 quintal). The total area that has got irrigated is 784 acres, out of which 270 acres of land has been protected from water logging. The water level of 59 wells has increased up to 8 to 12 ft and the period of water availability has increased to 8 months.
Check Dam Improves Crop Production and Crop Diversity:

Ganesh Jambhulkar is a farmer of village Ridhora having 8 acre of rain-fed land. Before check dam, he used to cultivate cotton in 6.5 acres (Yield 35 quintal) and pigeon pea in 1.5 acre (Yield 3.5 quintal). Now, he cultivates cotton in 5 acres (Yield 47 quintal), pigeon pea in 1 acre (Yield 6 quintal), wheat 1.5 acres (Yield 13 quintal) and vegetables 0.5 acre (for family consumption). His profit is increased from ₹. 66,200 (Pre check dam) to ₹. 1,77,075 (Post Check dam).

C. Farm Ponds

Construction of farm ponds is a major activity for the rain-fed farming as it ensures protective irrigation to save the crops. These water bodies ensure emergency/protective irrigation that saves the crops during a prolonged dry spell. Water logging problems has also been resolved after construction of farm ponds. In view of the benefits of farm ponds, many farmers have converted farm ponds into wells. KJBF has constructed farm ponds with average storage capacity of 450 cubic meters.

Table 3: Farm Ponds at a Glance

<table>
<thead>
<tr>
<th>No.</th>
<th>Details of interventions</th>
<th>Achievement in 2013-14</th>
<th>Cumulative till March, 2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Farm Ponds Constructed</td>
<td>805</td>
<td>1645</td>
</tr>
<tr>
<td>2</td>
<td>Water harvested in Cubic Meter (In Lac)</td>
<td>2.44</td>
<td>30.36</td>
</tr>
<tr>
<td>3</td>
<td>Farm Ponds Converted into Wells</td>
<td>209</td>
<td>331</td>
</tr>
<tr>
<td>4</td>
<td>Land covered under Irrigation (Acres)</td>
<td>1208</td>
<td>2469</td>
</tr>
<tr>
<td>5</td>
<td>Villages Benefitted</td>
<td>97</td>
<td>145</td>
</tr>
<tr>
<td>6</td>
<td>Families Benefitted</td>
<td>805</td>
<td>1645</td>
</tr>
</tbody>
</table>

Farm Pond Changes Life of Sitaram Masram

Sitaram Masram is a farmer of village Mangli having 3 acres of degraded rainfed land. His family entirely depends on daily wages and earns ₹. 5,000 per month, within this limited money, he was unable to fulfill the daily needs of six members of his family. He has constructed a farm pond with KJBF support. Farm pond has helped in improving the moisture content of the soil, check the siltation and conserve water in the farm pond. Now, he is able to cultivate in all the three seasons. During summer season, he was started vegetable cultivation (Lady Finger, Labio, Chilly and Brinjal) on 1.5 acres of land. After harvesting and selling the vegetables, he earned ₹. 75,000. He also started cycle repairing store and earns ₹. 50 to ₹. 100 per day. At present he earns ₹. 12,000 to ₹. 15,000 thousand per month income from his land and cycle repairing store. His family now engaged in farming activities and dependency on daily wages totally stop.
D. Boribundh
(Seasonal Water harvesting structure):-

After the monsoon, most of the Rivers/streams flow for three to four months. Bori-bundh is a temporary seasonal cost effective water harvesting structure. Empty cement bags filled up with the sand/soil are stacked across the River/stream to stop/harvest rain water. The stacked cement bags are also covered with plastics to minimize leakage of water. Average cost for installation of a Bori-bundh is ₹ 4500. KJBF have installed total 578 Bori-bundhs in the year 2013-14.

Table 4: Bori-bundhs at a glance

<table>
<thead>
<tr>
<th>No.</th>
<th>Details of interventions</th>
<th>Achievement in 2013-14</th>
<th>Cumulative till March,2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Bori-bundhs Constructed</td>
<td>578</td>
<td>799</td>
</tr>
<tr>
<td>2</td>
<td>Water Harvested in Cubic Meter (In Lac)</td>
<td>85.06</td>
<td>110.08</td>
</tr>
<tr>
<td>3</td>
<td>Land covered under Irrigation (Acres)</td>
<td>6558</td>
<td>7878</td>
</tr>
<tr>
<td>4</td>
<td>Villages Benefitted</td>
<td>103</td>
<td>110</td>
</tr>
<tr>
<td>5</td>
<td>Families Benefitted</td>
<td>2539</td>
<td>3877</td>
</tr>
</tbody>
</table>

Bori-bundh :
A low cost Water Harvesting Structure rejuvenate hope :

Rambhau Nival of village Daroda has 6 acres of rainfed land. He has installed Bori-bundh on Nala during rainy season to harvest rain water for support irrigation for his Kharif crops. Before Bori-bundh, he cultivated only cotton and pigeon pea on 3 acres of land (Yield 21 and 6 quintal respectively). After Bori-bundh the moisture level in land increased and he cultivated cotton and pigeon pea on 3 acres of land (Yield 27 and 8 quintal respectively). During Rabi season, he cultivated gram on 3 acres of land (Yield 15 quintal). Hence due to Bori-bundh, Rambhau cultivated his land for two seasons instead of one and the yield also increased.

Farmers got success in checking water by installing low cost temporary water harvesting structures – Bori-bundh, which has ensured support irrigation during dry spell as well as cultivation of short duration crops in Rabi season.
E. Promotion of Farmers’ Groups Lift Irrigation (Medium)

Resource poor farmers unable to bear the cost of water lifting devices in spite of perennial rivers flowing next to their farms remained rain-fed farmers. KJBF motivated these farmers from the villages who are located on the banks of the perennial Rivers (Wardha, Wana, Dham and Bor Rivers) to be a part of the lift irrigation group. Average cost for installation medium size group lift irrigation was ₹. 4 lac which irrigates 40 acres of land with water lifting head of 40 meter and distance from water source to field is more than 1 Km. KJBF have formed lift irrigation groups to convert rain-fed farming into irrigated farming.

Table 5: Group Lift Irrigation (Medium) at a Glance

<table>
<thead>
<tr>
<th>No.</th>
<th>Details of interventions</th>
<th>Achievement in 2013-14</th>
<th>Cumulative till March,2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Group Lift Irrigation Promoted (Medium)</td>
<td>40</td>
<td>70</td>
</tr>
<tr>
<td>2</td>
<td>Land covered under Irrigation (Acres)</td>
<td>1518</td>
<td>2285</td>
</tr>
<tr>
<td>3</td>
<td>Villages Benefitted</td>
<td>22</td>
<td>38</td>
</tr>
<tr>
<td>4</td>
<td>Families Benefitted</td>
<td>293</td>
<td>462</td>
</tr>
</tbody>
</table>

Lift Irrigation Brings More Land Under Cultivation

Twenty Three beneficiaries of village Rohani having 121.5 acre of land under lift irrigation. Before lift irrigation, farmers grow cotton on 52 acres (Yield 286 quintal), pigeon pea on 19.5 acres (Yield 61 quintal), soyabean on 25 acre (Yield 153 quintal) and gram on 10 acre (Yield 40 quintal). After lift irrigation farmers grow cotton on 56.5 acres (Yield 704.5 quintal), pigeon pea on 19.5 acres (Yield 120 quintal) soyabean on 31.5 acre (Yield 268 quintal) and gram on 26.5 acre (Yield 198 quintal). The net profit is increased from ₹. 12.02 to ₹. 33.71 lacs. Due to lift irrigation land under cultivation, production and net profit is increased.
F. Promotion of Farmers’ Groups Lift Irrigation (Small)

KJBF has also promoted small lift irrigation groups through diesel engines. The cost of a lifting device like diesel engine is ₹ 25,000 which irrigates 20 acres of land with water lifting head of 15 meter and distance from water source to field is nearby.

Table 6: Group Lift Irrigation (Small) at a Glance

<table>
<thead>
<tr>
<th>No.</th>
<th>Details of interventions</th>
<th>Achievement in 2013-14</th>
<th>Cumulative till March, 2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Group Lift Irrigation Promoted (Small)</td>
<td>613</td>
<td>806</td>
</tr>
<tr>
<td>2</td>
<td>Land covered under Irrigation (Acres)</td>
<td>8694</td>
<td>10139</td>
</tr>
<tr>
<td>3</td>
<td>Villages Benefitted</td>
<td>103</td>
<td>108</td>
</tr>
<tr>
<td>4</td>
<td>Families Benefitted</td>
<td>2614</td>
<td>3602</td>
</tr>
</tbody>
</table>

Diversification in Cropping Pattern through Water Lifting Devices

Four members of village Sheadgoan having 21.5 acre of rain-fed land. Before lift irrigation, farmers grow cotton on 9 acres (Yield 36 quintal) and soyabean on 4 acre (Yield 30 quintal) only in Kharif season. After lift irrigation, farmers grow cotton on 9 acres (Yield 69 quintal), soyabean on 4 acre (Yield 69 quintal) and additionally they grow vegetables on 1.5 acre (Yield 4 quintal), wheat on 2 acre (Yield 20 quintal), gram on 4 acre (Yield 22 quintal) and jowar 1 acre (Yield 2 quintal). Due to lift irrigation, farmers can cultivate in Rabi season also and they can change cropping pattern.
G. Rain Water Harvesting Through Construction of Percolation Tanks:

The villagers have constructed percolation/reservoirs tanks with KJBF support in wasteland areas where there is adequate surface runoff in the catchment area to harvest rain water for surface storage and ground water recharge. Harvested surface stored water is directly used for irrigation while ground water table has increased up to 8 feet in the wells in the vicinity of percolation tanks. This has resulted in increase in area under irrigation. Average cost of construction of percolation tank is ₹. 7 lac of which 15% is contributed by local community while 85% has been supported by KJBF.

<table>
<thead>
<tr>
<th>No.</th>
<th>Details of interventions</th>
<th>Achievement in 2013-14</th>
<th>Cumulative till March, 2014</th>
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<tbody>
<tr>
<td>1</td>
<td>Percolation Tanks Constructed</td>
<td>5</td>
<td>14</td>
</tr>
<tr>
<td>2</td>
<td>Water Harvested in Cubic Meter (in Lac)</td>
<td>1.03</td>
<td>3.12</td>
</tr>
<tr>
<td>3</td>
<td>Land Covered Under Irrigation (Acres)</td>
<td>337</td>
<td>1105</td>
</tr>
<tr>
<td>4</td>
<td>Villages Benefitted</td>
<td>5</td>
<td>12</td>
</tr>
<tr>
<td>5</td>
<td>Families Benefitted</td>
<td>83</td>
<td>276</td>
</tr>
</tbody>
</table>

Percolation Tank : Ensured Water for Irrigation

Six members of village Chikmoh having 18 acres of land. Before percolation tank, the farmers cultivated cotton on 11 acre of land (Yield 71 quintal), soyabean on 2 acre (Yield 6 quintal), wheat on 1 acre (Yield 9 quintal) and gram on 4 acre (Yield 11 quintal). After percolation tank, cotton on 11 acre of land (Yield 114 quintal), soyabean on 2 acre (Yield 14 quintal), wheat on 1 acre (Yield 18 quintal) and gram on 4 acre (Yield 21.5 quintal).

H. Well Recharge

Over extraction of water through open dug wells/bore wells has resulted in depletion of ground water. In order to arrest the scarcity of water in the wells, the rain water in the farms is diverted into the existing wells through a filter mechanism to maximize ground water recharge at a faster rate. Water table has increased up to ground level in case of well recharge through rain water. One pit excavated near to the existing wells of size 8’ X 6’ X 5’ is filled up with filter materials like gravels, pebbles and sand with layer of 1.25’ each. Three perforated pipes of size 5’ diameter and 1 meter length are installed into the wells from the filter pit covered with net to arrest the silt and allow the clean water for ground water recharge.

Well Recharge, Recharges the Life of Champat Charde

Champat Charade from village Akoli having 9 acres of land. Only 6 months water is available in well which was not sufficient for the irrigation of Rabi crop. Before well recharge, he was cultivated cotton on 4.5 acre (Yield 42 quintal), pigeon pea on 0.5 acre (Yield 2 quintal) and soyabean on 4 acre (Yield 30 quintal). After well recharge, he observed increased in yield on crop; cotton on 4 acre (Yield 75 quintal), pigeon pea on 0.5 acre (Yield 5 quintal) and soyabean on 4 acre (Yield 65 quintal). The water level in well increases up to 8 to 11 feet and instead of six months farmers get water upto 9 to 11 months. The net income is also increased from ₹. 1,90,800 to ₹. 5,51,550.
Wells and bore well are mouth of the earth quenching the thirst of mother earth through low cost interventions, well and bore wells recharging with rain water.

### Table 8: Well Recharge at a Glance

<table>
<thead>
<tr>
<th>No.</th>
<th>Details of interventions</th>
<th>Achievement in 2013-14</th>
<th>Cumulative till March, 2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Well Recharges</td>
<td>488</td>
<td>1235</td>
</tr>
<tr>
<td>2</td>
<td>Land covered under Irrigation (Acres)</td>
<td>732</td>
<td>1518</td>
</tr>
<tr>
<td>3</td>
<td>Villages Benefitted</td>
<td>51</td>
<td>120</td>
</tr>
<tr>
<td>4</td>
<td>Families Benefitted</td>
<td>488</td>
<td>1235</td>
</tr>
</tbody>
</table>

### I. Soil and Water Conservation (Farm Bund and Loose Boulder Structures)

The population pressure on the existing cultivable land is tremendous. Farmers are cultivating land traditionally without any soil conservation measures. This has led to over exploitation of natural resources, heavy erosion, run off and loss of productive soil layer in rainy season. To address these issues, KJBF has initiated Soil and Water Conservation measures.

Farmers have carried out field bunding to conserve soil and water in their undulating fields with KJBF support. Grass seeding was also done on the bunds for their stabilization. Small gullies were formed on the undulating land due to soil erosion. These gullies were treated with stone plugs in order to prevent soil erosion, to reduce the velocity of run off and to maximize moisture conservation.
Table 9: Soil and Water Conservation at a Glance

<table>
<thead>
<tr>
<th>No.</th>
<th>Details of interventions</th>
<th>Achievement in 2013-14</th>
<th>Cumulative till March, 2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Farm Bunding (Acre)</td>
<td>126.41</td>
<td>1225.86</td>
</tr>
<tr>
<td>2</td>
<td>Loose Boulder / Gabion Structure (No.)</td>
<td>438</td>
<td>586</td>
</tr>
</tbody>
</table>

J. Promotion of Micro-Irrigation System:

Micro Irrigation Systems encompass low-cost drip and sprinklers. Micro-irrigation can maximize crop productivity and protect the environment through conserving soil, water and fertilizer resources while also increasing farmer income. With the help of micro-irrigation system, a farmer can save more than 60% water and make the agriculture practices easy through fertigation method. Since water is given at regular but frequent intervals and at a required quantity as compared with traditional systems, plants have better metabolism and produce a better crop in terms of both quality and quantity. The soil-water-air ratio is also favorable for most cash crops. Micro Irrigation keeps the soil warmer than conventional irrigation.

Table 10: Micro - Irrigation at a Glance

<table>
<thead>
<tr>
<th>No.</th>
<th>Details of interventions</th>
<th>Achievement in 2013-14</th>
<th>Cumulative till March, 2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Drip Irrigation</td>
<td>82</td>
<td>440</td>
</tr>
<tr>
<td>2</td>
<td>Sprinkler Irrigation</td>
<td>856</td>
<td>1521</td>
</tr>
<tr>
<td>3</td>
<td>Land Covered under Micro-Irrigation (Acres)</td>
<td>1489</td>
<td>3943</td>
</tr>
<tr>
<td>4</td>
<td>Villages Benefitted</td>
<td>84</td>
<td>135</td>
</tr>
<tr>
<td>5</td>
<td>Families Benefitted</td>
<td>988</td>
<td>2044</td>
</tr>
</tbody>
</table>

Percolation tanks acts as vessels for rain water harvesting which in turn increase the ground water table
Efficient and judicious use of water is prime responsibility of everyone. Drip and sprinkler irrigation popular among the farmers; Sanjay Khairkar of village Borkhedi (K) using sprinkler irrigation.
Promotion of Sustainable Agriculture Practices

Convergence of Agricultural Interventions in Maharashtra (CAIM)

Arun Chichghare and family have adopted natural farming and are using Jeevanruti and Dashparni ark in their vegetables and other crops. Chichghare family has realized benefits of natural farming not only for their own consumption but all the consumers have also experienced the enhance taste with cheaper rates compared with market. Arun and his family are inspiring all the neighbouring village farmers.
Tasty Brinjal from jeevamrut

Arun Chichghare, a farmer of village Shivangaon. He was trained in a Farmer Field School organized by Agriculture Department under the convergence activity. He adopted natural farming in mid of October by creating demonstration plot of brinjal. He prepared and applied 9 drum (200 liter x 9 = 1800 liter) of Jeevamrut and sprayed of Dashparni ark and Agniyastra five times as natural insecticide and pesticide manually. As a result of that, the growth of Brinjal plant has been healthy and free from insect and pest. The taste of brinjal has improved because of which the demand in the local market has also increased. Now, he earns total net profit of ₹ 2,27,400 as comparison to chemical farming of ₹ 1,79,100. He collected demand from Himalaya Vishwa Colony, Wardha as well as the rural market and provide home service to them. After observing the results, he utilizes 62 drums (200 liter x 62 = 12,400 liter) jeevamrut and 50 liter of dashparni and Agniyatra on 4.30 acre of land (cotton, wheat, vegetable, maize & chilly plot). Inspired by this results, 10 farmers of this village using jeevamrut in wheat and gram crop.
KJBF has been implementing the Convergence of Agricultural interventions in Maharashtra’s (CAIM) project. The project is specially designed for six agrarian distressed districts of the Vidarbha region which includes Wardha. A total of 51 villages are covered in the two blocks of Wardha district (22 villages in Seloo and 29 villages in Samudrapur blocks).

KJBF has actively been promoting water harvesting interventions; integrated agriculture practices like agriculture crops in combination with horticulture and forest trees, natural farming and soil conservation through farmers’ field school. SHG groups have been formed, Biogas and Income Generation Activity has been initiated to empower rural women and make the Programme sustainable in collaboration with Govt. of Maharashtra, SRTT, IFAD and local community.

Village Development Committee’s (VDC) are actively involved in the project. Producer groups are formed and trained for the effective application of agriculture practices like Integrated Nutrient and Pest Management (INM and IPM) to reduce cost of production, increase net profit in the traditional crops like cotton, soyabean and promoted high value diversified crops like horticulture, spices, pulses and dairy farming.

Small producer Agriculture Business Resource Centre (SPARC) unit and Farmer Producer Company have been formed to strengthen the business skills in the farming community. All these activities are effectively implemented for strengthening the forward and backward linkages of the farming system.

Achievements of CAIM Project:

1. Total 4717 household were covered during the year 2013-14 and till date total 6859 house holds from 51 villages are covered under various activities (In situ soil and water conservation Programme, Agriculture activities, VDC, Producer group) of CAIM Project.

2. A total of 11 small micro enterprises were started in 4 cluster villages through SHG and Producers Group (PG) (1 Dal mill, 1 Cleaning and Grading Unit and 9 SPARC units).

3. Vocational training on basic electronic and motor rewinding was provided to a total of 60 youths in 3 batches. Seven students have opened their shop and are earning an average of ₹ 5,000 per month in their village.

Various others development interventions like natural farming, Biogas, income Generation Activities, Promotion of Indigenous cows etc. have also been carried out in CAIM project villages which have been reflected in respective programme chapters.
Easy availability of farm equipments at the right time has reduced drudgery through establishing Small Producers Agri Resource Center (SPARC).

Reduce Drudgery through Small Producer Agri. Business Resource Centre (SPARC)

SPARC unit was conceptualized by KJBF in consultation with community under CAIM project. Need based agriculture implements like Bullock driven implements seed drill, plough, hoe, harrow, power spray pump, 3 HP and 5 HP Diesel engine, Sprinkler set, big polythene sheet, spiral separator and cotton up-rooter were purchased. In order to run this unit successfully, farmers formed the SPARC Committee, which includes 12 farmers and office bearers. Farmers who contributes in this unit pays low rent for agriculture equipments as compared to other members. By using equipments like ‘Spiral Separator’, farmers have saved 70% time, 50% money and reduced drudgery during cleaning and grading of crops. The establishment cost of one SPARC Unit is ₹ 1,67,000. A total of 534 farmers have benefitted and ₹ 15,000 has been generated through lending of implements within two seasons.
Mr. Arun Pandhi (in cap), Chief Development Manager from SRTT, Mr. Andrew White (Senior Editor Touchline Magazine) and Shri Haribhai Mori, Head Programmes of KJBF discussing with farmers of village Ridhorna on how they are getting benefits of revival of rivers and check dams under the KJBF-NRTT collaborative project.

Convergence with Mahatma Gandhi National Rural Employment Guarantee Scheme Stops Migration

Raipur (J) village, consists of 64 households with population of 331 people. The primary problems in the village are unemployment, seasonal migration from Jan. to May due to water scarcity and undulating land.

KJBF - CAIM team converged the programme with Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) in the year 2012-13 and 2013-14. Under this programme, farm bunding activity has been carried out for arresting soil erosion and better percolation of water along with plantation of fruit trees on 61.19 hectare of land. 32 hectare fallow land has also been converted into cultivable land. As a result, the rate of migration has reduced and 31 families have started farming. Their average monthly income of each farmer is ₹ 3,500. Such small steps can convert the deprived area into progressive village.
Low External Input Sustainable Agriculture (LEISA) technique is one of the best combination of Integrated Nutrient and Pest Management which has helped the farmers to minimize cost of cultivation and increased yield.

BBF and LEISA Technique Reduced the Cost of Cultivation

Prashant Sawarkar, a farmer of village Takali having 5.3 acre of land but due to excessive use of fertilizers, the productivity of the land is declined. He adopted LEISA technique by converting 1 acre of land as a demonstration plot during Rabi season, he cultivated gram. KJBF team disseminated the Broad Bed Furrow (BBF) with combination of Low External Input Sustainable Agriculture techniques (LEISA) like seed treatment with Rhizobium, Phosphorous Solubilizing Bacteria (PSB) and Trichoderma for good germination, adopted dibbling method for sowing, applied jeevamrut as natural fertilizer and ‘Dashparni ark’ as natural fertilizer and insecticide. Maize and Coriander cultivated as intercrop in the gram field. He also adopted the mechanical pest control by randomly erecting 20 sticks (1 to 2 feet height rough surface).

As a result, he has been able to save 12 Kg of seeds per acre through dibbling method. After the application of LEISA technique, yield has improved from 6 quintal to 10 quintal per acre; and the net profit increases from ₹ 7,000 to ₹ 20,247. Additionally, he got fodder of ₹ 1,500 for his animal and coriander of ₹ 4,500. He also observed that soil texture is improved.
Ramuji Gulab Nagtode rejuvenated his farm by adopting natural farming and sowing seeds of indigenous cotton variety which has effectively reduced dependency on external inputs.

**Better Cotton Initiative : (BCI)**

KJBF in collaboration with cotton connect (Partner of Better Cotton Initiative- BCI) has initiated BCI in 27 villages; it includes 2500 farmers of Seloo and Deoli cluster. The main objective of the project is to demonstrate the inherent benefits of better cotton production particularly the financial profitability for farmers by promoting decent work for farming communities like reducing the harmful impact of crop protection practices, use water efficiently, conserve natural habitats, maintain ecological balance and facilitate global knowledge in sustainable.

In order to fulfill the objective of the BCI, KJBF has added natural farming to avoid the usage of chemical fertilizers; insecticide & pesticides to the cotton farmers. This has made the farmers’ self-dependent on the available natural resources and nature friendly.

**Straight Line Variety Improves the Net Profit**

Ramuji Nagtode, farmer of village Khadka has 9 acres of Irrigated land. He adopted the techniques of BCI holistically on 1 acre of land and cultivated straight variety Suraj with intercrops like pigeon pea, marigold, green gram and black gram as trap crop for the protection from harmful insect and pest. He sprayed Jivamreet, Dashparni ark and Agneeyastra as natural insecticide and pesticides. He has harvested 4.5 quintal of cotton from 1 acre of land and 2 quintal of pigeon pea by investing ₹ 10,595 per acre and earn net profit of ₹. 19,855 per acre. Additionally, he earns ₹ 4,000 from green gram, black gram and marigold. By maintaining isolation distance, he enhance the cotton seed production for the utilization of seed in next year. He also motivated to the other farmers for the conservation and cultivation of indigenous cotton variety to reduce the dependency on external market for hybrid seeds. He exchanges his cotton lint to local institute and gets pure khadi cloth for regular use.
Vijay Petkar create hopes among the cotton farmers to take more net profit by cultivating cabbage as an intercrop investing less in cultivation practices by adopting BCI package of practices

**Torch Bearer for Cotton Growing Farmers**

Vijay Petkar, is a farmer in village Vijayagopal having 11 acres of land. In the year 2009, he cultivated soyabean on rainwater and harvested 6 quintal per acre. In 2010, training was arranged by KJBF on effective utilization of water for improving the production. After training, he adopted intercropping system by cultivating cotton as main crop with the labia and pigeon pea. At that time, he harvested per acre 15 quintal of cotton, 2.5 quintal of labia and 3 quintal of pigeon pea and earn net profit of ₹ 48,000 per acre by investing ₹ 30,000. In 2011, he was actively participated in water user group and took the benefit of lift irrigation. In the same season, he harvested 30 quintal of cotton, 5 quintal of pigeon pea and 4.6 quintal of labia and earned net profit per acre of ₹ 69,000 by investing ₹ 40,000 per acre. After then he has been not looking back. He is also an early adopter of innovative projects. In 2013, he participated in the learning group and followed all the agriculture practices of Better Cotton Initiative project. He has successfully harvested 36 quintal per acre of Bt. Cotton with 4.83 tonne of cabbage from the same piece of land by spending ₹ 82,000 per acre on the cultivation of cotton and cabbage and earned net profit of ₹ 1,40,800 per acre.

**Achievements of BCI Project:**

- 15 % input cost on Seed, labour, fertilizer and insecticide has reduced.
- Average yield has increased up to 22 % and Net profit has increased up to 10 % due to the best management practices under Better Cotton Initiative Programme.
Biogas is a boon to the rural household. The multiple benefits of the Biogas have changed many lives in the rural area of Wardha district. Under National Biogas Development Programme, KJBF has been implementing biogas Programme in collaboration with Agriculture Department, Zilla Parishad in Wardha district. The unit cost of Biogas Plant is ₹. 23,800 of which KJBF contributed ₹. 8,300. Government ₹. 8,000 and community also contributed ₹. 2,000 in cash form and ₹. 5,500 as kind form. During the year 513 Biogas plants have been constructed. Total 1,131 families are benefitted through biogas plants.

**Monitoring and Evaluation**

KJBF and Zilla Parishad, Wardha has developed monitoring system based on 100 per cent physical verification at the Village level, prepare report and share it with the National Biogas Development Programme. An impact study has also been conducted by KJBF to understand the benefits accrued and share our experience with the other people and organizations.

**Capacity Building of beneficiaries**

The bio-gas beneficiaries were also acquainted with the use and the maintenance through regular workshops and trainings. This initiative of KJBF, further enhanced the capacities of the beneficiaries.

### Achievements and Impact of Biogas Programme:

- 1,131 families are benefitted
- 5 quintal of fuel-wood saved per household.
- Average ₹. 4,500 saving by each family annually on fuel-wood
- 11,310 metric tons of manure getting through Bio gas project in a year
- 1,131 women’s saves approximate 3,393 hours during cooking and reduce drudgery
- 3,393 tons of fuel wood saved due to Biogas program
- 33 skilled masons trained, daily earning ₹. 500

By rearing Indigenous cow and installing biogas, family can fulfilled their energy requirement and help in reduction of in-house gases emission, drudgery involved in cooking and deforestation
By adopting Biogas in village Bothali (Heti) the villagers get the home made fuel at any-time by replacing other fuel like LPG and make their surrounding neat and clean by utilizing cow dung into biogas and the slurry in agriculture field

The Whole Villages Move Towards Cleanliness Through Biogas

Village Bothali (Heti) consists of 57 families with a total population of 260 people. They have average 8 cattle in each family and their livelihood depends on agriculture and dairy farming. A total of 28 families have benefitted through biogas plant. As a result of this 84 bullock carts of fuel-wood, 28 bullock carts of each (cotton stalk and pigeon pea stalk) of total ₹ 1,40,000 per year has been saved. This shows that Biogas is boon for the rural people, which is cost effective, time saving and environment friendly fuel with one time investment without recurring expenses. The bi-product (slurry) that comes out after the fermentation process is being used as high quality manure resulting in reduced cost of cultivation, improved soil health and increased agriculture yield.

Villagers shared their experience with the KJBF team and happily said that, “Before construction of Gobar Gas, village roads and their home yards were dirty due to cow dung but now cow dung can be utilize properly for getting clean fuel and we feel that we live in neat and clean atmosphere.”
Weeping Eyes Turns to Smiley Faces

Sunita Ganpat Gahat of village Pipari (Meghe) has 5 cattle. She used to spend 2 hours for cooking on traditional chulha for the last four years. During cooking, the entire house used to choke with smoke and her eyes prickling and turns teary due to harmful smoke. Sometimes, it was difficult for her to breathe also. It became more worst during rainy season, when availability of dry fuel-wood was problem and the fuel wood take more time to burn due to high moisture in it.

After construction of biogas plant, she cooks food within half an hour under clean atmosphere and her children are happy. Biogas has positively impacted on women health especially in relation to eye and lung related diseases. Biogas has also reduced the drudgery of collecting fuel wood.
Promoting Agro-based Livelihood

Promoting Horticulture: The Wadi Experience

KJBF has supported 3970 farmers in 112 villages of Wardha district under WADI project in collaboration with NABARD. The main objective of the project is to provide sustainable source of agricultural income by promoting horticulture plants (Mango, Amla, Guava, lemon) in 1 acre each along with agro-forestry system by planting various forest species on the boundary of the farm.

The main focus of the project is to involve community members starting with selection of beneficiaries’ right up to the marketing of the product. KJBF assists in selecting the “Wadi Mitra” who is further trained on agriculture extension activities. The Wadi mitra undergo regular trainings, exposure visits, street plays, demonstration plots and natural farming techniques such as preparation and application of Jeeramrut, Amrutjal, Dashparni ark and Agniashtra etc.

Achievements and Impact under Wadi Project:

- 3,970 Acre of land is covered under Wadi Project
- 3,970 Families are benefitted
- 147 Group wells constructed covering 974 families
- 1,510 Families covered under group lift irrigation
- 2,990 Families provided water tanks for irrigation
- 1094 Families covered under vegetable cultivation
- 318 Landless families benefitted (44 Grocery shop and 274 indigenous Cow)
- Average ₹. 6,725 per month Income Generated by each family
- 64 Families are provided with smokeless chulha
- 3,249 Families supported barbed wire fencing to protect WADIs from wild animals
- Cropping pattern changed - from mono-cropping to integrated cropping pattern
- Cropping intensity increased from 1 to 3 crops
WADI is an one acre land agro-based livelihood intervention which focuses on the development of fruit crops for tribal families with intercropping and soil water conservation measures.
Surendra Fasge (first from left), Dr. Snehal Bansod, DDM-NABARD (second from left) observed the efforts of Devidas Mandari (first from right) which makes his wadi green through intercropping and cultivating fruit trees

KJBF has promoted group wells and group lift irrigation to convert rain-fed farming into irrigated farming. It has also as application of soil conservation methods. KJBF has also provided water storage tanks of capacity of 200 liters so that farmers can bring water from nearby source on a bullock cart. KJBF has also motivated the farmers to adopt Pitcher Irrigation for efficient use of water. Group wells constructed with KJBF have been crucial to the success of the WADI’s. Sense of ownership has been created among all the WADI beneficiaries by involving them in all stages of planning execution and after care. In order to strengthen livelihood of landless tribal families, ₹ 10,000 financial support has been provided to them and they have initiated various micro enterprises.
Building Livelihood through Intercropping in WADI

Devidas Mandari, of village Borgaon (Gondi) is a beneficiary of Jai Gurudev Wadi SHG. Before WADI, he was cultivated only cotton crop (Yield 3.5 quintal per acre) in Kharif season. In 2012-13, he was attended awareness Programmes conducted by KJBF and benefitted through various activities like well deepening, use of pitcher irrigation, intercropping practices. KJBF has provided 25 Mango (Kesar) grafts, 20 Amla and 8 Lemon seedlings to him in 1 acre of land. After WADI, he adopted intercrop as Soyabean (Yield 4 quintal) and vegetables (Yield 3 quintal) and earn net profit of ₹ 15,500 in one season. In 2013-14, he cultivated soyabean as intercrop (Yield 5.45 quintal) in Kharif season and earn net profit of ₹ 9,500. In the same year, he cultivated wheat and vegetable as intercrop in Rabi season (Yield 5 quintal and 4 quintal respectively) and earn net profit of ₹ 10,000.
Promotion of Indigenous Cow based Natural Farming:

Nature has been made arrangement of rejuvenation in itself. Natural Farming is an ecological farming which is the sustainable way to balancing the eco system, conserving soil character and helpful to reduce cost of cultivation by utilizing naturally available plant species around the farm, an indigenous cow urine and cow dung.

Soil is rich in nutrients. Beneficial microorganisms and earth worms play a key role by making nutrient available to plants and hence additional input for crop are not required. However, excessive use of chemical fertilizer and pesticide destroy these microorganisms, adversely affecting the ecosystem. Natural farming is based on four concepts that are Beejamrut, Jeewamrut, Mulching and Waaphsa.

Trainings, exposures and demonstrations of natural farming for various crops like cotton, pigeon pea, wheat, vegetables and fruits crops like mango, lemon and goose berry with the help and inspiration of Shri. Subhash Palekarji and other resource farmers. 2,468 farmers participated in training and demonstration programmes out of which 830 farmers have adopted these methods in an aggregate 1,163 acre.

Natural farming is increasingly becoming popular among the farmers resulting in reduce cost of cultivation and no use of chemical fertilizers and pesticides thereby strengthening the eco system
Natural Farming Changes the View of Moreshwar Sirsam

Moreshwar Sirsam, of village Umari has 5 acres of partially degraded rainfed land. During the cultivable season, he worked as a farm labour and totally depressed from agriculture practices. After motivation of KJBF, he actively participated in five days residential natural farming workshop. Inspired by the workshop, he initiated natural farming for cotton crop. He cultivated cotton of indigenous variety (LRK-516) in Kharif season by utilizing jeevamrut which is made of dung and urine of indigenous cow, jaggery, gram flour and fertile farm soil. He used Dashparni ark (An extract made from 10 different plants which contains bitter leaves mixed with urine and dung of indigenous cow) for pest management. Prior to adoption of natural farming in cotton crop, he used to spend ₹ 15,000 per acre as an input cost in chemical farming and yield was 4 quintals per acre. After adoption of natural farming in cotton crop his input cost reduced to ₹ 5,000 per acre and yield increased to 7.5 quintal per acre. His net profit before adopting natural farming practices was ₹ 10,000 per acre and on adoption of natural farming techniques this shot up to ₹ 36,000 per acre in the first year itself ! By seeing the profit, he has expanded natural farming in 3 acre of fallow land. Now, he proudly look after the agriculture as his main livelihood.

Subhash Palekar (first from left) visited the farm of Moreshwar Shirsam who practicing natural farming in Cotton cultivation
Indigenous Cow Promotion

Mother Cow (indigenous) is an integral and indispensable part of livelihoods and ecosystem. Gaulau Cow (Indigenous breed) has unique pool of genes, have capacity to survive in adverse conditions, disease resistant to peculiar region. It is a very compassionate and giving animal without many demands. During its calving period it is estimated to yield 720 to 960 liters milk in a time of 240 days.

Due to decrease in number of indigenous cow and reducing size of land holding, farmer’s dependency on external inputs is increased. For the promotion of Gaulau cow, KJBF has provided ₹ 10,000 as interest free revolving fund to the needy families.

Achievements and Impact of Indigenous Cow Promotion:

- 1,043 families benefitted during the year; cumulative achievement 2286 families in 133 villages.
- ₹ 14,400 Income increased/family/annum by selling milk (1741 Families)
- 3 MT Farm Yard Manure produced/annum/cow
- Cow urine and dung are essential ingredients under Natural Farming.
- The financial support for purchasing indigenous cow also resulted in the strengthening of the SHG and the developing leadership quality among th SHG members.
Sangita Arvind Salame, of village Sawangi (Pod) having 2.5 acre of irrigated land. She is a active member of Krantiveer SHG. She used to purchase farm yard manure of ₹ 1,200 per trailer trolley and one liter milk of ₹ 25 from other farmers. She has purchased a "Gaulau" cow through revolving fund, after two months of purchasing, Cow gave birth to male calf and gives four liter milk per day. Sangita use one liter milk for home consumption and remaining three liters utilize to prepare milk product khawa (sweet). She sells khawa (sweet) in local market at the rate of ₹ 150 per Kg. and earns ₹ 500 per week. By selling the two year male calf she also earned ₹ 15,000 and from that she also started a sari selling enterprise at home.

Additionally, she gets 3.5 Mt. compost in a year which helps in improving soil health. After purchasing cow she has observed improvement in the health of family member especially two little daughters. After realizing the profit from one cow, she has planned to purchase another cow to support her family.
Organisation Building
A Dedicated Team is the Catalyst of Change

KJBF team makes unstinted efforts for strengthening livelihood of the distressed agrarian community for their sustainable development. Various capacity building programmes such as trainings, workshops and exposure visits for its team members and village volunteers. The development model of KJBF also focuses on development of human resources through spirituality.

Approach for Holistic Development:
- KJBF’s primary mission is to enable easy access to the rural community by establishing multi disciplinary team at the block level.
- The participatory approaches adopted by the KJBF have made villages evolve as demonstrative models for other to emulate the primary mission of KJBF.
- KJBF believes in “Seeing is believing” approach. KJBF is of the opinion that it is better to “see and believe” upon the extent of work that it has carried out through its intervention.
- Mass communication activities such as street plays, video shows, women day celebrations, regular workshops for raising awareness regarding the KJBF’s participatory approaches amongst the community.
- KJBF interacts with the community and beneficiaries through regular meetings which is an integral part of any organization.

Capacity Building of Team KJBF:
- KJBF has continued its efforts to build the capacities of their staff by imparting training, organizing workshops and seminars.
- A three day training programme was organised on “Communication and Team Building” for the team members of the KJBF. The training programme was organised with the help of ASK INDIA (Training Institute), New Delhi.
- A four day training programme in “Soil and Water conservation- Technical aspects” training was facilitated by Shri C. S. Pathak organised through SRTT.
- One day training was organised in “Social Entrepreneurship Development” for the KJBF team and village volunteers. The training was facilitated by Shri Vikas Nath.
- KJBF organised an exposure visit to western part of Maharashtra focusing on Natural farming in horticulture.

Programme Area:
As a strategic approach, KJBF expanded its working area to another 100 villages and reached to a total 501 villages by the end of 2013-14.

Monitoring System:
KJBF uses the Mulyankan software to compile the data related to the project. The weekly planning, monthly and quarterly meetings are organized on a regular basis amongst all team members. The feedback received from the senior team members is regularly shared with the entire team for effective implementation of its activities.

Visitors:
- Dr. S. Saravanavel, Chief General Manager, NABARD RO, Pune visited KJBF to acquaint with the activities of KJBF. He visited WADI Programme villages implemented by KJBF.
- Nine students and one professor from Stellenbosch University, South Africa visited KJBF to acquaint with the activities carried out as a part of their study under global food security challenges.
- Dr. Nico Slate, Professor at Carnegie Mellon University, Pittsburgh (U.S) visited KJBF to strengthen the association between KJBF and Carnegie Mellon University.
- Seventeen student from the Mass Communication and Journalism department from the English and Foreign Languages University, Hyderabad visited KJBF as part of their development tour.
- Ms. Smita, Director (Edu.) American India foundation.
- Mr. Dayaram, Secretary ASPIRE, New Delhi.
- Dr. Tiwari, President Rotary Club Nagpur.
- CSR teams of various corporate.
FOSTERING PARTNERSHIP

Resource persons and organisations sharing their experience in various programmes with KJBF. The helping hand of resource person are as follows:

- Shri. Subhash Palekarji, promoter of Zero Budget Natural Farming (ZBNF) conducted a five days’ workshop and appraised the farmers about the benefits of ZBNF to save the nature and reduce cost of cultivation.
- N.M. Sadguru Water and Development Foundation Sewagram, Wardha
- River Side School, Ahmedabad.
- National Research Center for Citrus (Govt. of India)
- Gau-Vigyan Anusandhan Kendra, Devlapar, Nagpur.

- Krishi Vigyan Kendra, Selsura
- Shri. Limay, shared his knowledge on technical design of Lift Irrigation
- Shri Tarak Kate, Chairman, Dharamitra helps in assessing and evaluating the impacts of KJBFs intervention in various sectors
- Dr. Gharoteji, Dy. Director (Retd.), Animal Husbandry assisted in promotion and adoption of Indigenous cow and dairy farming.
- Shri. Ramesh Sakharkar from Bhilli, Amravati helped in promotion of Indigenous seeds.
1st Row (Lt. to Rt. Sitting in front) Vishal Katre, Prashant Niwal, Vijay Chambhare, Swapnil Hemke, Nawneet Upadhye, Vishal Thakre, Sachin Gayakwad, Shashikant Pudke, Mangesh Talwekar, Mahendra Deshmukh

2nd Row (Lt. to Rt. Sitting) Siddharth Gaikwad, Jitendra Katre, Karsan Sarikhada, Yuwarj Lonare, Rahul Borkute, Anil Salam, Nitin Ubaie, Sanjay Rathod, Atish Gaikwad, Vinod Parise

3rd Row (Lt. to Rt. Sitting on Chair) Prashant Borkute, Surendra Fasge, Atul Amnerkar, Raju Pawar, Apoorv Bajaj (Trsutee KJBF), Haribhai Mori (Head Programmes), Mahendra Phate, Vijaya Thakare, Ashwini Shende, Rakhi Somkuwar

5th Row (Lt. to Rt. Standing) Akash Thool, Sagar Manchalwar, Rahul Panchbhai, Hrushikesh Hardas, Kishor Khirale, Niraj Bhimte, Pankaj Raut, Pravin Chivane, Sachin Sonone
Changing Face of Village Sindhivihiri

Background

Sindhivihiri village of Karanja block lies 55 km away from Wardha in the north direction. It is 25 km from Karanja Block. The total irrigated area of the village is 159.60 hectares and the non-irrigated area is 196.72 hectares and is surrounded by 4466.91 hectares of forest. Major crops cultivated in the village are cotton, soyabean, wheat and gram. The village has 332 houses with a population of 1836 people (949 men and 887 women). Out of those 21 families comes under landless category. 311 peoples have their own land out of which 35 comes under the category of large farmer (< 5 acre), 176 are medium farmers (2.5 to 5 acre) and 100 are small farmers (> 2.5 acre).

Intervention

KJBF started its field intervention in Sindhivihiri in August 2011. It is one of the village under the Wadi project. A Participatory Rural Appraisal (PRA) was under taken to understand and take stock of the ground realities of the village prior to intervention. It was observed that agriculture is the only livelihood for the small and marginal farmers, who have less than 2 acres of landholding. Farmers adopted traditional practices which was very archaic and unsustainable. The awareness level amongst farmers about agriculture technology was low. Hence the income generated from agriculture is very limited. The following highlighted problems were observed during PRA:

- Most of wells in the villages dry up during the summer season
- Farmers were mostly growing traditional crops like Cotton and Soyabean.
- Farmers were also making rampant use of large amount of chemical fertilizers and pesticides to enhance production.

Achievements and Impact under KJBF Interventions in Sindhivihiri:

i) Farmer club forms and covered 15 farmers
ii) 10 SHGs are formed covered 126 women’s and saves ₹ 1.53 lacs.

iii) 1 Group Well covered 9 beneficiaries and benefitted 10 acre of land.
iv) 7 Water Harvesting farm ponds,18 acre water level are constructed at field which is helpful to cultivation of crops in Rabi season also.
v) 7 Diesel Engine covered 30 acre land of 28 beneficiaries.
vi) 30 Well Recharging Structure cover 55 acre of land.
vi) 14 Drip Irrigation Systems cover 17 acre of land.

viii) 31 Sprinkler Irrigation Systems cover 70 acre of land
ix) 96 farmers benefitted through seed distribution (soyabean) for intercropping and earns 13.34 lacs in a season (3.5 quintal per acre) 96 beneficiaries (3,970) at the same time we provide horticulture plantation and barbed wire fencing to protect the crop from wild animals.

x) 26 beneficiaries covered under vegetable cultivation practices and earn ₹ 10.92 lacs per annum.

xii) 10 beneficiaries covered under Income Generated Activity and they earn ₹ 3 lacs per annum.

xiiii) 45 Indigenous Cows promoted.

xiii) 36 Water Storage tanks distributed.

xiv) 18 Biogas installed which helps to save ₹ 65,700 on fuel wood.

xv) Families are consuming home grown natural vegetables resulting in improved health of family members and nutritional status of the children.

xvi) 45 families generated ₹ 14,400 Income increased / family / annum by selling milk (32 Families) while ₹ 22,400 values added products (13 Families)

xvii) Design for Change initiative in Ramdas Athole, village school helped children in solving their daily problems by the use of available resources in their surroundings. This also improved their intellectual capital as well as their self-confidence as a result the children solved drinking water problem by digging a bore well and now have planned to installed hand pump.

xviii) Out of 332 households, KJBF touches the life of 127 number of households and 193 beneficiaries.

After the intervention of KJBF in Sindhivihiri the awareness level in the villagers improved tremendously and they are ready to adopt new agriculture practices.
Prabhakar Chopde enjoying the yield of indigenous variety of wheat (*Bansi*) by practising natural farming. This agriculture practice secures the futures of tribal farmers as well as resource poor farmers of Sindhivihiri village through conserving and establishing seed banks of indigenous variety of crops which make the farmers self-sufficient for seed sources and minimise their dependency on market for agriculture inputs.
Financial Progress (2013-14):

The total utilization of fund for various activities in 2013-14 was INR 334 million out of which INR 160 million contributed by KJBF, INR 105 million by Sir Ratan Tata Trust (SRTT), National Bank of Agriculture and Rural Development (NABARD), Government of Maharashtra and International Fund for Agriculture Development (IFAD), INR. 51 million by community contribution and INR 18 million by revolving fund.

Our expenditure for 2013-14 was INR 334 million, out of which programme expenditure was INR. 296 million, administrative expenditure was INR. 11 million, capital cost was INR. 19 million and outreach expenditure was INR. 7 million.

Our expenditure for 2013 for programme expenditure was INR 296.48 million out of which expenditure for water resource development was INR 128.57 million, Soil conservation was INR. 1.89 million, Promotion of Micro-irrigation was INR 23.13 million, Biogas programme was INR 12.11 million, Promotion of Indigenous Cow was INR. 9.63 million, Wadi programme was INR 57.37 million, Rural Enterprise was INR 8.64 million, Promotion of SHGs 0.38 million, Convergenc of Agriculture Initiatives in Maharashtra project (CAIM) was INR 51.90 million, Better Cotton Initiative was INR 2.76 million and Water shed project was INR 0.10 million.
### Details of Capacity Building Programme Year 2013-2014

<table>
<thead>
<tr>
<th>No.</th>
<th>Programmes</th>
<th>Unit</th>
<th>Physical Progress in 2013-14</th>
<th>No. of Participants</th>
<th>Cumulative Achievement till March,2014</th>
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<td>Institutional Training</td>
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<td>Village Volunteers</td>
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<td>Exposure Visits (Within district)</td>
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<td>Exposure Visits (Outside district)</td>
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<td>Participatory Rural Appraisal</td>
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</table>
KJBF is greatly indebted to the board of trustees, who have been a source of inspiration and have guided the foundation well. KJBF is governed by board of trustees headed by,

**Shri. Shishir Bajaj** is a founder member and Chairman of the foundation. After completing MBA from New York University with a major subject in finance, Shri. Shishir Bajaj joined the group company in 1974 and has since then been shouldering the overall responsibility of Chairman cum Managing director of Bajaj Hindustan Limited.

**Smt. Minakshi Bajaj** Co-founder member of the foundation has obtained her bachelor degree from Calcutta University and is a director of Bajaj trustee company private Limited and Roop Sugars Private Limited.

**Shri. Kushagra Nayan Bajaj** is a trustee of KJBF and also been shouldering responsibility as a Vice Chairman of Bajaj Group Limited. Mr. Bajaj has completed Bachelor of Science in Economics, Political Philosophy and Finance from Carnegie Mellon University, Pittsburgh, USA; he also earned Master of Science in Marketing from Northwestern University, Chicago, USA. He is the moving force behind the social responsibility initiative of the foundation.

**Shri. Apoorv Nayan Bajaj** is Executive President of Bajaj Corporation Ltd. He completed a Bachelor degree in Commerce from HR College of Commerce, Mumbai University. He is trustee of the KJBF and regularly travels to Wardha to help and direct the foundation work. Socioeconomic and spiritual development of the community is his passion.
Om, May All become Happy,
May All be Free from Illness.
May All See what is Auspicious,
May no one Suffer.
Om Peace, Peace, Peace.