

BACKGROUND INFORMATION OF THE DISTRICT JAMTARA

General Features of the District:

Jamtara is a newly formed district of Jharkhand state. It came into existence on 26th April'2001. The district is located at a lower altitude of Chotanagpur plateau and its latitude and longitude vary from 23° –10' to 24° 5' north and 86° 30' to 87° 15' east, respectively. The small district of Jharkhand State comprises of only 4 blocks surrounded by Deoghar, Dumka, Girihdih and Dhanbad district, its east side boundary touching the boundary of West Bengal and we can see significant effect of Bengal culture on the people of Jamtara district. Chittranjan, Jamtara, Vidyasagar are the three railway stations (on main line Delhi to Howrah) situated in Jamtara district. Educational facilities for the people are not so good and only 6 colleges, 23 high schools, 101 middle and 503 primary schools are running in the jurisdiction of the district. Literacy percentage of the district is only 42%. As education, health care facility is also not satisfactory with only one referral hospital and 165 primary health centers including other centers are present in the district

Agro Ecological Situation:

The planning commission, Govt. of India, has divided the whole country into 15-agro climatic zones, Jharkhand State falls under VIIth Agro climatic Zone. This State is also divided into three-agro climatic regions i.e. IVth, Vth and VIth. Among the three, Jamtara district comes under the IVth (Central and North Eastern plateau region) Agro climatic irrigation and cropping pattern, Jamtara district has been divided into four Agro-Ecological Situation (AESs) for the purpose of SREP preparation. One representative village of each AES was selected for participatory data collection through multidisciplinary AES teams. The village selected for such study is given in table 5.1. All the villages selected are located 15 to 50 km from the district headquarters, Jamtara.



A. Title: Making a difference through the greens**B. Background:**

The north-eastern district of Jamtara has for long been the Rain God's stamping ground. But the necessary accessories seem to water down the bounty — the majority of 1400 mm of rainfall bucketing down in just two months hasn't quite served the purpose of agriculture. Besides, the red lateritic soil type of the area being both porous and equally permeable, and the absence of perennial rivers is a running sore. So, one can expect agriculture to bear fruit only through proper irrigation facilities, which the district is devoid of. Given the handicaps, vegetable cultivation holds a lot of promise, owing to the rich micronutrients stuffed in the soil. The demand for vegetables in the region is particularly high, given its location (along the Howrah-Delhi main route) and proximity to towns like Dhanbad, Asansol and Chittaranjan. Through water harvesting and its judicious use, farmers can indeed ease out all bottlenecks and reap profits.

C. Intervention and process:

A farmer of Karmoi village of the district, 28-year-old Santo Mandal was the first to blaze the trail. His village is nestled between two hills about 12 km off the block headquarters of Narayanpur. In the foothills, a water harvesting structure is also available. Mandal came down to the ATMA office and discussed his personal and social problems with Deputy Project Director Dr Arvind Kumar.

"I find myself at the crossroads. I don't shy away from labour, but don't know how to make both ends meet. Can you help?" Mandal's eyes didn't betray the slightest hint of his privations. Though Mandal was frustrated, he

wanted to turn his life around. ATMA, Jamtara saw hope and arranged for his training at Hehal, Ranchi and an exposure visit to Orissa. After that he organised separate farmers groups for males and females. While Mandal led one, Purnima Devi, his co-villager, took charge of the other.

The groups worked in close coordination with the Farmer Advisory Committee (FAC) and Block Technology Team (BTT) of Narayanpur upon the advice of Dr Arvind Kumar. ATMA, Jamtara organised a one-day visit of Deputy Commissioner Mohanlal Ray and other district officials to the village. The BTT also organised several awareness campaigns in the village. Besides, frequent visits of the Deputy Project Director and other district officials helped the farmers forge a sense of understanding and companionship among themselves. ATMA notched up success in motivating the farmer groups to go in for water harvesting and its proper utilisation through inception of lift-irrigation facilities and introduction of high-yield vegetables.

D. Benefits and Impacts:



Prior to ATMA coming into the picture, Karmoi farmers took to agriculture the traditional way. Water harvesting wasn't given its due. But now, it stands out as a striking example of the wonders the concept can bring about in the field of vegetable cultivation.

By way of collective efforts, farmers renovated the existing harvesting structure, strengthening the receptacle so that it could hold more water. The farmer groups also availed of bank loans for procuring a pump set and

delivery pipes to facilitate irrigation at the uplands. Now, the farmers feel free to frequent the ATMA office for technical inputs and suggestions about marketing and other problems. Presently, 15 farmers in Karmoi are engaged in vegetable cultivation, mainly cauliflower and cabbage. Borax application in soil is also a common practice in this village. They sell their produce both in Jamtara and Dhanbad (about 30 km). They have taken to high-yield varieties and are able to earn much better than what they used to. In 2003-04, farmers grew vegetables on a six-acre plot, and reaped returns @ Rs 6-10 per kg as per the market demand. Now, the farmers are a happy lot. The change has revolutionised their lives. ATMA, Jamtara continuously organised exposure visits of different farmer groups of the district to this village so as to prod them to undertake similar ventures in others areas.

E. Lessons learnt:

- (i) For village-level extension work, farmers as resource persons will hit the nail on its head.
- (ii) Frequent visits of officers to the target areas left a better impact on farmers.
- (iii) Camaraderie between farmers and extension workers is vital to the fruition of the project.

A. Title: Yesterday's waste is today's buzz

B. Background :

The Jamtara district is a classic example of poverty amidst plenty. Despite adequate rainfall, the farmers practice mono cropping. The district's topography is largely to be blamed for limiting the otherwise hardworking farmers. Approximately 50 per cent of the land in the district falls under upland *tar* category, which remains barren throughout the year. The percolation rate in upland *tar* is so high that it remains fallow even during the monsoons.

C. Intervention and process:

ATMA, sensing the helplessness of the farmers, decided to step in and acquaint them with modern agriculture techniques for putting the upland *tar* to good use. In the first step, awareness campaigns under the aegis of Block Technology Team (BTT) were organised, where the farmers were made to realize that even the upland *tar* could be cultivated, provided modern agriculture techniques were implemented. The BTT also organised community demonstration of mixed/inter cropping of maize and arhar for the interested groups on participatory mode. The farmers were acquainted with latest techniques like *Rhizobium* inoculation and use of NPK fertilizers.

After demonstration, farmers' groups were formed at Jagannathpur, Karmoi and Baramajladih villages in Narayanpur block and in Jamtara block

similar groups were formed at Chalna, Virgaon, Tulsichak and Kundith villages. The ATMA procured improved arhar seeds like Bahar and Birsa-1 and Suwan for maize from Birsa Agriculture University (BAU), Ranchi. *Rhizobium* culture was made available for the farmers from BAU's Soil Science and Agricultural Chemistry Department.

D. Benefits and Impacts :



While the local arhar variety yielded 3 to 4 quintal per hectare land, the improved arhar seeds yielded 10 to 12 q/ha. The farmers could also reap maize on the land, which till yesterday was wasteland for them. The results have taken the farmers by surprise and farmers from neighbouring villages are queuing up at ATMA office for implementing the practice on their land. Arhar cultivation has also improved the water retention capacity of the upland areas. Apart from making some fast buck, the farmers use the remains of arhar plants as fuel.

E. Lessons learnt and Inferences drawn:

- ◆ Promotion of a new farming procedure is easy when done in a group rather than an individual.
- ◆ Villagers prefer to take up this venture along with paddy rather than maize, owing to local food habits.
- ◆ Farmers need to be made aware of the wonders that improved seed varieties can spring forth; they won't mind paying that extra buck.

A. Title: Laying golden eggs**B. Background**

Backyard poultry is a common vocation among the tribal and Muslim families in rural areas of the Jamtara district. Backyard poultry does not require any extra investment. Poor farmers not only rely on it for regular income but also for nutritive food. Women are mainly engaged in this activity and take pride in contributing to the family income. But the farmers are unable to reap good benefits despite backyard poultry being so popular in the district. They mostly rear the *deshi* hens, which lay only 50 to 60 eggs annually and gain only 1 to 1.5 kg bodyweight.

C. Intervention and process

Sensing the potential of backyard rearing, the ATMA decided to introduce a more profitable breed of birds called Divyayan Red among the farmers. These birds not only lay much more number of eggs than the *deshi* birds, but also gain weight faster. The Block



Technical Team (BTT) organised awareness programmes for the farmers' groups. Following which, the farmers at the FAC and BTT joint meetings demanded intensive implementation of the scheme throughout the district.

ATMA, in the first phase, decided to introduce the birds in three villages each in Naraynpur and Nala blocks, as a pilot run. It was decided to implement the scheme in other villages only after gauging the success of the project in these villages. BTT experts provided training in scientific rearing and arranged for exposure visits of farmers to Ranchi Veterinary College and Ramkrishna Mission, Ranchi. Community demonstration of Divyayan Red in the district was started on February 2003.

Farmers drawn from Tituliyatar, Badamanjhaladhih and Khalkokundi of Narayanpur block and Mohanpur, Saluka and Jagannathpur of Nala block were selected for the allotment of

Divyayan Red units. Each of the 120 farmers was given a unit comprising 4 females and 1 male chick. The cost of one unit was Rs 200. Block Animal Husbandry Officer provided the technical support. These birds start laying from the age of 7 to 8 months.

D. Benefits and Impacts

Shivlal Marandi of Mohanpur village expects to earn around Rs 1,000 from his one unit in the first year itself. The growth of the birds has taken him by surprise. When Dr Arvind Kumar, Deputy Project Director, ATMA weighed his birds, Shivlal was pleasantly surprised to learn that the birds had gained 2.5 kg to 3 kg in 11 months. The women in the families are also a happier lot, as the Divyayan Red lays 230-250 eggs annually. They are now not only able to feed their children with eggs on regular basis, but also are selling the surplus. Earlier, taking care of the backyard poultry was a compulsion for many of them. Now, it's more of a pleasure.

More and more farmers from neighbouring villages are now approaching the ATMA officials for the introduction of Divyayan Red in their villages. The ATMA officials are now encouraging the farmers not to sell or consume all the eggs but allow some to hatch. Each Divyayan Red egg fetches Rs 3-5 in the market, which is tempting enough for the farmers. But some farmers are showing enough wisdom and allowing a portion of the eggs to hatch. Because of lack of awareness, the innocent tribal villagers at times slaughter hens for feast, which they invariably repent later and promise not to repeat again. They all have realized that patience holds the key to prosperity.

Divyayan Red has certainly brought smiles on the faces of the farmers. Call it the Wonder Hen.

E. Lessons learnt and Inferences drawn

- (i) For lack of awareness, farmers at times overlook long-term gains and sell eggs or slaughter the birds.
- (ii) Introduction of new schemes in groups than through individual is more preferred by the tribals.
- (iii) Improvising need based enterprises fetches quick and desired results.

A. Title: Earn lakhs from lac

B. Background:

The Purulia district in neighbouring West Bengal is considered the hub of lac cultivation in the country. Keeping in mind the geographical similarity between Jamtara and Purulia district, ATMA, Jamtara decided to introduce this enterprise among the farmers. The primary requirement for lac cultivation, palash trees, is found in abundance in this region.

ATMA, which thrives to make the hardworking people self-dependent, decided to popularize the concept more among the womenfolk. Through extensive awareness campaign, farmers were made to realize that from negligible investment they could reap good benefits. Furthermore, the practice would not disturb their routine activity also.



C. Intervention and process:

Villages with thick palash tree cover were identified and intense awareness campaigns with the help of Shidhu Kanhu Alp Sankhyak Samiti, an NGO of repute were launched. Consequently, Farmers Interest Groups (FIG) were formed. From these groups, 30 farmers were selected for seven-day training at Lac Research Institute, Namkum between March 26 and 31 in 2003. The Farmers Advisory Committee (FAC) had recommended live demonstration of the latest technologies involved with this activity.

Dr Jaiswal, Director, Indian Lac Research Institute, Namkum, was more than helpful in acquainting the farmers with the latest technologies. His encouragement played a crucial role in successfully implementing the project. The farmers were provided with lac seeds, seed net and scicattiors by the institute on cost basis. Inoculation of brood lac on about 1,000 plash trees was performed in some villages of Narayanpur and Nala blocks. Under Narayanpur block, the villages were Jagannathpur, Sahajpur, Hutumtar, Hathbandha, Ranitarand and Yadudih. In Nala block, Ambabank, Murgabani, Lakrakunda Mohanpur and Seed Production Farm were selected for the pilot project.

ATMA also appointed Saktidhar Koiri, an expert lac cultivator from Purulia as the advisor.



D. Benefits and Impacts:

Under the supervision of ATMA officials, the first inoculation on palash trees was done in the month of July, 2003. In October, the produced lac was transferred onto other palash trees by trained farmers. Now the farmers are waiting for the first commercial harvest of lac, which will take place in May this year. The farmers, who had invested just Rs 7 per tree, expectedly would reap 3 to 5 kg lac from each plant. At the prevailing market price of around Rs 80 per kg, each palash tree, which till the other day was of no use to the farmers would fetch them around Rs 200, that too twice a year.

There are several farmers in the district who own over 100 palash trees. The district has every potential to push Purulia behind in terms of lac cultivation.

Now that the ground has been prepared, it won't be much difficult to popularize the concept.

Apart from low investment, there is no fear of theft associated with the activity, which makes it further attractive among the farmers.

Rajomani, a lady lac farmer of Ambabank village, now repents cutting some palash trees to expand the cultivable land.



E. Lessons learnt and Inferences drawn

1. In the absence of lac experts, many queries of farmers remain unanswered.
A lac specific department is much required at Jamtara.
2. Involvement of officials like Dr Jaiswal can do wonders.
3. In the absence of qualified officials, help from expert farmers should be sought.

A. Title: Farmers' sweat sweetens bitter gourd**B. Background**

Small and marginal farmers mostly inhabit Khijuria village in Kundhit Block about 22 km from the block office. These farmers despite being hardworking were unable to get good benefits from farming because of varied reasons. The Block Technology Team (BTT) took it upon itself to change the face of the village inhabited by hardworking farmers. It conducted intense awareness campaigns about bitter gourd cultivation on upland tar, which otherwise remained barren throughout the year. Abdul Miyan and Gangadhar Pandit took the leadership in forming Self Help Group/Farmers Interest Group. The BTT did not face much difficulty in convincing the farmers, as the land required for bitter gourd farming was upland *tar*. Now the fields, which before the implementation of the scheme remained barren, are under a green canopy throughout the year. The Khijuria villagers for the last four years are successfully cultivating bitter gourd on land, which earlier gave them no returns.

C. Intervention and process

In the first year, a handful of farmers took up bitter gourd farming and many more joined after seeing the results. The BTT too was waiting for this opportunity and introduced more scientific input as the number of such farmers increased. ATMA's role was limited to providing training and exposure facilities to some farmers. It also showed the farmers the marketing avenues. Apart from reaping 'gold' from barren land, bitter

gourd farming has also enhanced the water retention capacity of upland tar. As the soil is highly porous, the land is unable to retain water despite the region receiving approximately 1,400 mm rainfall annually. The web or the canopy, which is essential for bitter gourd farming, enables the rainwater to trickle down slowly, thereby enriching the soil's moisture content.

D. Benefits and Impacts:

For bitter gourd farming no additional irrigation facility is required, as the activity is totally rain-fed. The canopy on which the bitter gourd climbers rest not only enhances the water retention capacity, but also prevents soil erosion to a great extent. After a few years of bitter gourd farming, the same arid land would become highly fertile.

Presently in Khijuria village, bitter gourd is grown on about 20 acres of land owned by 15 farmers. The land, which till the other day was of no value to hardworking farmers, is today fetching them around Rs 15,000 per annum.

The best part of this experiment is that the neighbouring villages without the intervention of BTT or ATMA are taking up bitter gourd cultivation and farmers on their own approach ATMA for technical support.

E. Lessons learnt and Inferences drawn:

- (i) Seeing is believing. Only after witnessing the result of the first phase of experiment, more villagers volunteered to cultivate bitter gourd.
- (ii) Lack of awareness about pesticides and plant protection cut down on profit margins.
- (iii) In the absence of irrigation facilities, the region is totally dependent on the monsoons.



A. Title: ‘Shipping’ goodwill and success

B. Background:

Mostly inhabited by Muslim and tribal farmers, Birgram village, on the banks of the Baraker River, is 12 km off the district headquarters town of Jamtara. Crossing the river is the shortest route to reach Jamtara and Dhanbad. Apart from agriculture, some Muslim families also make a livelihood from ferrying passengers. They also transport sand. The tribal youths mostly work as labourers on boats owned by their Muslim counterparts who are comparatively well off. These youths nursed a strong desire to own a boat for long, but suppressed it knowing their economic limitations.

C. Intervention and process:

ATMA not only envisages imparting technological know-how to farmers, but also aims at bettering their lot through other means as well. In keeping with this line, the Block Technology Team (BTT) of Jamtara arranged for the visit of SBI Field Officer RS Roy to the village, consequently organising a farmers’ interest group. The village youths, under the leadership of Shahdev Murmu, were more than willing to make the most out of this opportunity. They decided to purchase a boat and ferry people besides goods, but without compromising on their normal agricultural activities. ATMA officials, who were overwhelmed by the response, approached the bank to make available a loan of Rs 70,000 for the farmers group.



D. Benefits and Impacts:

With the loan amount, the farmers' group purchased a mechanised boat. The other boats operating in the area were manual, which took approximately 30 minutes to cross the river. The motor-driven boat does the same in seven minutes. Another advantage with this boat is that wind conditions have no bearing on its speed. They in between ferrying passengers, transport sand and make a fast buck.

Today the group has emerged as the best example of Self Help Group in Jamtara district. Shahdev Murmu, the acting chairman of FAC, Jamtara in the beginning of every month doesn't hesitate to visit the bank to pay the instalments. Apart from being in the good books of the bank for paying instalments in time, the group also has a consolidated saving of Rs 20,000. They have also evolved an 'intra-loaning' mechanism. This group of 20 tribal youths now earns Rs 300 every day on the average from the boat, which is an additional income for them, as their primary activity is agriculture.

E. Lessons learnt and Inferences drawn:

- ◆ Association of the banks with any development scheme at the grassroots is a must.
- ◆ Apart from agriculture, the field officers should motivate the villagers to take up other ventures for supplementing their source of income.
- ◆ Group activity achieves better result in case of tribals.