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Grassroots Action in Gumla

Building upon a strong base of community mobilisation, Pradan's Gumla project team in Jharkhand is now poised to generate sustainable livelihoods in significant numbers

Nirmal Beura

The district of Gumla in Jharkhand, west of Ranchi in the Chotanagpur plateau, was created in 1983. Simdega was later carved out of it as a separate district. Gumla has an area of 5,300 sq km divided into 11 blocks. There are 980 villages in the district, organised into 113 panchayats. The district headquarters is connected by road to Lohardaga 50 km to the north, Rourkela (Orissa) 150 km to the south, Ranchi 95 km to the east and Jashpur (Chhattisgarh) about 50 km to the west.

Pradan has been working in Gumla since 1997. Presently the team works with more than 7,000 households in the three blocks of Palkot, Raidih and Gumla. A large part of the three blocks are covered with forests and the population density is low. The comparative figures for the blocks are given in table 1.

Gumla district is undulating throughout with alternating hill ranges, uplands and valleys. Altitudes vary between 500 m and 800 m from mean sea level. Chainpur, Dumri and Bishunpur blocks in northwest Gumla have elevated hill ranges and forests known as the Barway region. Barway is connected with

Palamau district in the north. On the other side, the hilly-forest tracts extend towards Raidih block, west of Palkot block and then to Simdega district in the south. The eastern part of Gumla is comparatively plain with sporadic forest patches.

The population in the district is 13.45 lakh (2001 census) with a decadal growth rate of 16.60% since 1991 (Jharkhand 23.19%). Gumla is mostly rural, with 95% of the population living in villages (Jharkhand 78%). Gumla also has the highest Scheduled Tribe (ST) concentration in Jharkhand (70%). The population density of 148 per sq km is the lowest in the state.

Oraons, Khadias and Lohras constitute a majority in the ST population. A section of the Oraons are Tana Bhagats, influenced by Vaishnavism. Unlike other Oraons, they are vegetarians. Smaller tribes comprise Birhors, Birjias, Asurs and Nagesias. At 33% of the population, Christians are a significant community in Gumla. Muslims are scarcer at 13% (Jharkhand 27%). The rest are either Hindus or Sarnas (the original tribal religion). Christians dominate the Barway region.

Table 1: Gumla Project Area

| Block | Area (sq km) | Forest (%) | Cultivable (%) | Population (per sq km) | ST (%) | SC (%) | Farmers (%) |
|--------|--------------|------------|----------------|------------------------|--------|--------|-------------|
| Palkot | 575 | 27 | 55 | 123 | 59 | 8 | 70 |
| Raidih | 515 | 36 | 55 | 121 | 64 | 3 | 79 |
| Gumla | 522 | 11 | 76 | 241 | 63 | 4 | 67 |

Poor District

Gumla is very poor economically. According to official figures, 73% of the population lives below the poverty line (Jharkhand 62%). In terms of access to basic services and infrastructure, too, Gumla fares badly compared to Jharkhand as a whole, which is itself poorly served. Gumla produces only 131 kg of food grain per capita annually. The remaining has to be brought from outside to meet the requirements of the population.

Agriculture is predominantly rain-fed and therefore, dependent on the vagaries of the monsoons, especially the distribution of rainfall. Poor rains result in crop failure, leading to distress migration out of the district and state.

Paddy is the predominant crop. Although Gumla accounts for 13.1% of the paddy area in the state, it produces only 9.6% of the state's paddy. Small and marginal farmers constitute 70% of the total farmers. Landlessness is rare, though land alienation exists due to indebtedness under the informal credit system.

Government records show about 5% of total cultivable area under irrigation. This figure includes the command areas of defunct schemes as well. However, Pradan has implemented several community based lift irriga-

tion systems in the district covering over 1,000 hectares. There are many more opportunities and it is possible to bring about 30% of the cultivable area under irrigation.

Pradan has established a strong presence in the few years it has been working here. The team's outreach is given in table 2. The various activities of the Gumla team include forming and nurturing self-help groups (SHGs), and promoting livelihood activities such as agriculture, poultry, horticulture and vegetable cultivation (table 3).

Historical Snapshot

Pradan's Gumla project team started work in 1997, primarily with Khadiya and Oraon tribes. Between 1997 and 2000 we concentrated on mobilising poor people around micro lift irrigation schemes. We promoted 65 lift irrigation schemes through community groups in Gumla, Ghagara, Bishunpur, Palkot, Basia, Kolibera, Raidih and Chainpur blocks. The schemes however were spread across a huge geographical area. It was therefore difficult to support them in later stages.

From 2000 to 2003, the Gumla project focussed on mobilising poor women through self-help groups (SHGs) around savings and credit. It worked through an area saturation approach, which entails selecting a contiguous geographical area with similar resources,

Table 2: Self-Help Groups in Gumla

| Block | Project Villages | Households | SHGs | SHG households |
|--------------|------------------|---------------|------------|----------------|
| Palkot | 46 | 10,287 | 261 | 4,176 |
| Raidih | 25 | 3,750 | 144 | 2,516 |
| Gumla | 19 | 4,408 | 78 | 1,170 |
| Total | 86 | 17,849 | 484 | 7,862 |

Table 3: Livelihood Activities in Gumla

| Block | Agriculture | Poultry | Horticulture | Total | Families covered (% of SHG HH) |
|--------------|--------------|------------|--------------|--------------|--------------------------------|
| Palkot | 1,141 | 50 | 8 | 1,199 | 29 |
| Raidih | 600 | 150 | 4 | 754 | 30 |
| Gumla | 400 | 0 | 15 | 415 | 35 |
| Total | 2,795 | 200 | 27 | 3,022 | 38 |

market conditions and bank branches, and mobilising a major portion of the households in that area.

During this period, 430 SHGs with 6,500 women members were promoted in clustered patches in the three blocks of Palkot, Raidih and Gumla. This became the concrete geographical patch where further livelihood related interventions were made in an intensified manner.

At around the same time, the team also intervened to improve cultivation practices of the predominant crop, paddy. We promoted a complete package for intensive paddy cultivation by encouraging use of high yielding varieties, fertilisers and pesticides through filed exposures and demonstrations. This resulted in increased production and went a long way to reduce food scarcity among participating families. We are further improving our paddy package by introducing SRI (System for Rice Intensification).

Promoting Livelihoods

By 2003 the team had mobilised the community in large numbers. From 2003 onwards till the present, we have continued to mobilise the community but have also focussed intensely on promoting various

livelihood activities. It became clear during this period that merely mobilising savings and credit is not going to help the families involved unless we promoted various income generating activities so that members are able to make informed and productive investments.

A variety of such interventions were initiated that included poultry farming, mulberry sericulture, upland vegetable cultivation, particularly tomato, cultivation of potato, a combination of maize and pigeon pea, okra, mustard, chillies, cabbage, capsicum etc., and promoting horticulture with mango, litchi and banana. These experiments, some of which did not do well, were necessary not only for our learning but also for streamlining various livelihood interventions.

In this period we realised the complexities that go with identifying, promoting and establishing the various activities, for example people's ability to adapt to new activities, dealing with market forces and identifying resources to work with. Currently, various activities are still being streamlined in terms of income generation and reducing production risks. This includes systems for sustenance such as service providers, input kits, etc. We have also promoted producers' coop-

eratives for agriculture and poultry farming.

Quite a few positives have come our way during these three years. We have not only mobilised the community in significant numbers but also have been able to establish their confidence and faith in us. We have established strong linkages with banks and other credit sources and have been able to strengthen and streamline various livelihood activities. We are now poised to step up our interventions in a significant manner.

What the Future Holds

The team has now realised that no one activity (except perhaps poultry farming) has the potential to generate an incremental annual income of Rs 15,000 for a household (the benchmark we hope to achieve for all participant families). In such a scenario, integrated natural resource management (INRM), where every type of available land is utilised for short and long-term benefits, holds the most promise.

Since most tribal households own land of various types (upland, midland, lowland), it possible to enhance incomes significantly by promoting various farm activities such as vegetable cultivation, horticulture, etc. The team already has had relatively good experience in promoting improved paddy cultivation in medium and lowlands, which could be further strengthened. We should also intensely promote vegetable cultivation around the year, as there is good demand for them in the market. Additionally, families could also utilise marginally used uplands to grow fruit trees.

In order to approach INRM (and consequent food security) in a meaningful way, we need to address some critical issues. Can INRM bring about an incremental annual income of Rs 15,000 per family per year? We believe it

can, provided we are able to manage certain realities on the ground.

The major challenge is to ensure increased paddy production while at the same time promoting other farm activities like cultivating vegetables. We have seen that all our upland interventions in vegetable cultivation are directly related to good paddy cultivation. Regardless of tight monitoring, intercultural operations of vegetables are affected adversely due to erratic rainfall with families cultivating paddy during the Kharif season.

How much paddy does a family require? Back of the envelope calculations reveals that if a five-member family needs 3 kg of rice per day, their annual requirement would be a little more than 1,000 kg. How much land is required to produce this quantity? In the lift irrigation command areas promoted by us, this requires half to one acre of land. But we will have to remember that irrigation is not available to most of the farmers. Therefore, to ensure adequate paddy production, farmers need irrigation and perhaps better cultivation techniques like SRI. Our present package is still dependent on rainfall. Erratic rainfall leaves the people with no choice but to cultivate paddy in whatever land they have, restricting other options.

Alternatives

As an alternative, vegetable cultivation has huge potential in the areas we are working in. Given the fact that ample uplands are available (hence no water logging), and there is good market demand from July to December, vegetable cultivation has the potential to generate about Rs 10,000 annually for each participant family. The nearby regions of West Bengal and Orissa do not have such favourable climate and resources

for vegetable production. As a result, there is great demand for vegetable during the Kharif season. A large number of families in our project area can benefit from vegetable cultivation.

Growing fruit trees in marginal lands offers another opportunity for poor households. Although the team has intervened in this regard, there is still some work to be done in the near future to strengthen this activity. Presently, we are promoting intensive mango plantations in half-acre plots of land with 60 plants, live fencing and intercropping. Some factors that strengthen the intervention are good soil depth, excellent climatic conditions and the natural inclination of the people to invest in such a (relatively) long-gestation crop.

We are expecting that the crop coverage is going to be high in the next few years. According to our conservative calculations, each plot of half an acre would generate an annual income of Rs 15,000 (60 plants bearing 50 kg of mango each a year by the eighth year and sold at Rs 5 per kilo).

Although we would treat each of these activities as separate, as far as the families are concerned, the differences are minimal. The same family would participate in our paddy, vegetable and orchard interventions. This integration at the family level will be the special focus of the team.

Another focus area of the team would be to leverage mainstream funds for irrigation infrastructure for vegetable and well as fruit cultivation. We are looking at an irrigated area of 50 decimals for each participant family. This implies that we need to develop strong linkages with government agencies and programmes.

Farming System Approach

The primary lesson we have learnt from our intervention in the past few years is that participant families need to look beyond picking a specific intervention for a particular year. We need to help them develop integrated plans based on the resources a particular family commands so that the returns are substantial and sustained.

This means looking beyond just crop packages and prescriptions. In order to broaden our interventions we require a change of approach from a crop specific to a farming system approach, where a round the year plan around a family's resources is put into action.

This perspective entails considerable intervention in a multitude of activities. To generate and sustain incomes in a farm means interdependence of many factors that includes human and animal health, availability of cow dung and other manures, soil health, farming implements, water availability and irrigation, cheap fuel sources, storage facilities, mobility, etc. Each of these contributes significantly to the final generation of income from farming activities.

Such an integrated approach with a family requires significant interventions in different activities that includes immunisation of goats and cattle, forestry, fishery, vegetable cultivation, horticulture, health, etc. As a grassroots action team our main challenge is finding sustainable ways to improve and strengthen these factors essentially at the family level. How do we do it?

Obviously, intense capacity building of the community so that they are able to conceptualise, implement and sustain integrated

natural resource management holds the primary key. There is tremendous need to train participant families at the conceptual level to take up these integrated activities. We need to continuously engage with a family's sense of well being with actions on the ground. A firm conceptual groundwork would also make implementation easier. Building a network of service providers and resources persons is another critical input that poses considerable challenge.

One possible way is to start with a small number of people gathered into a co-operative for the upkeep and maintenance of assets. The future of the team perhaps lies in the way we are able to build and nurture people's institutions around INRM. We need to make these institutions truly managed and run by the people. Since the intensity of activities would be high, with market linkages, input procurement and processing playing crucial roles, strong and vibrant producers' co-operatives would play a critical role.

Challenges Ahead

The Gumla team has identified several challenges that it needs to address in the near future. These include:

Integrating poultry activity with agriculture: Families engaging in poultry farming are being left out from our agriculture interventions. They are excluded because they are already into an activity that generates adequate income.

Streamlining processes for vegetable cultivation: This is necessary to broad base vegetable cultivation. Presently, technical packages for such intervention are relatively at a developmental stage. Applying these into field-friendly packages so that a large num-

ber of families could adopt these technologies presents a clear challenge. How could we make these technical packages 'easy' so that families are encouraged to engage in them and then sustain them on their own?

Intense capacity building of participant families: All professionals in the team need to imbibe the true spirit of capacity building of the community at the family level. All the processes for engaging in the farming system approach revolves around how the individual family responds, makes changes and sustains the initiatives.

Developing indicators for impact analysis: Currently this is poorly developed. Our impact at the family level is very poorly measured and analysed. Data collection, compilation and analysis need to be strengthened. This would improve both the quality of interventions as well as the impact it is likely to bring about.

Setting standards for measuring progress of the team's intervention: The parameters that the team decided on evaluating the success of a certain programme is sustainability, quantity, quality, transparency, family focus and capacity building. We need to use these parameters for positive evaluation for growth of individuals, families as well as Pradan professionals.

More working space for professionals: We also need to ensure that our professionals have enough space to take charge and make things happen in terms of geographical reach, thematic activities, fund allocation, etc.

Building a pool of local resource persons to support various interventions: This needs to be immediately developed and nurtured.

The Flowering of Phulmoni Devi

A tale of a tribal family's journey from abject poverty and chronic hunger to reasonable prosperity and a life of dignity

Pankaj Das

"We sometimes wanted to harvest paddy before it was time for harvesting. Occasionally we did harvest it before it was time. There were no options left to us if we wanted to eat," reminisces Phulmoni Devi of Silam village in Gumla. She had once asked for an irrigation well but the village committee nominated someone else and some influential people in the village threatened her. Her family was mired in poverty and there seemed to be no hope left. "Once my husband went to Ranchi from Gumla (95 km) on foot because there was no money for the bus fare," she recollects.

Forty-three years old Phulmoni is a member of Jagritee Mahila Mandal in Silam village of Raidih block. Silam, 6 km from Gumla district headquarters, is one of biggest village in Raidih block, home to more than 200 families. The Oroan community plays the major role in the village as they comprise 60% of the population, along with 10% of Lohras, Christians and Sahoos.

There are six Pradan-promoted women's self-help groups (SHGs) in Silam. It was a fortuitous coincidence that Phulmoni became a member of a SHG. She had returned home from Himachal Pradesh (where she had gone in search of wage labour) just a day before my colleague Ajit helped form a SHG in 1999. She never looked back after that.

Phulmoni's family consists of her husband Tapeswar, one son and two daughters (one married). Tapeswar now works from home. This was not always so. He had to migrate to faraway places like Nagaland and Himachal

Pradesh in search of wage labour for 12 long years in order to support his family. Tapeswar owns 4 acres of land out of which he can cultivate paddy only on 0.6 acres as the rest is marginal land in the forest.

Tapeswar married Phulmoni in 1982. At that time they could at least eat two square meals a day. Six months after their marriage Tapeswar's father divided his land in three parts (one part for himself and one each for his two sons). As a result Tapeswar's brother Kripa got 8 acres because their father stayed with him and Tapeswar had to make do with 4 acres. Tapeswar was never as hardworking as his wife, who had to work most of the time as a wage labourer.

Wages of Toil

The unremitting toil took its toll. In 1985 Phulmoni was afflicted with tuberculosis. They spent all the money they had on her treatment. But it was not enough. Tapeswar had to borrow Rs 3,000 from a large farmer. Even after all this she was not completely cured. Then a day came when the family starved for two days. That was the time when Phulmoni wanted to harvest the paddy before it was time in order to eat.

They finally had to take a tough decision. Tapeswar went to Nagaland as a wage labourer. Even today Tapeswar has not forgotten the first day of his migration. He went to Ranchi on foot from Gumla to meet his friend who accompanied him to Nagaland.

In 1993 the paddy in Phulmoni's field, along with others, shrivelled due to lack of rain.

The government announced a relief of 5 kg wheat to each affected family. She had to trudge to Gumla for eight days for the measly amount of wheat, which she did not get because she could not go the very day the wheat was distributed because her son was down with high fever.

From Bad to Worse

Things went from bad to worse. A day came when Phulmoni had no choice but to migrate to Nagaland in search of work. She lived there with her husband for three years. In 1996 they migrated to Himachal Pradesh. After spending another three years, she came back to the village with her two children. The very next day she joined Jagritee Mahila Mandal promoted by Pradan.

In 2002 Pradan's Gumla team formed the Gumla Grameen Poultry Co-operative Society with the help of SHG members of Silam village. Nine SHG members started poultry farming with facilitation from Pradan. Phulmoni was one of them. She took a loan of Rs 2,500 for a year from the SHG. She reared two batches of poultry chicken but unfortunately, suffered a 50% loss because her technical expertise was not up to the mark.

She however refused to give up. In 2003 she constructed a poultry shed with a loan of Rs 10,000 from the local rural bank and Rs 9,500 as subsidy from the Jharkhand State Co-operative Department. From June 2003 she started rearing broiler chickens. After rearing two batches of birds she was able to repay the Rs 2,500 loan she had taken from the SHG. She repaid the bank loan in two years.

Today, Phulmoni is one of the best producers in the co-operative. She is able to earn a profit of more than Rs 2,000 from each batch

Table 1: Phulmoni's Poultry

| Year | Batch/Year | Profit (Rs) |
|--------------|------------|---------------|
| 2002 | 2 | -1,654 |
| 2003 | 6 | 15,076 |
| 2004 | 8 | 16,633 |
| 2005 | 7 | 15,111 |
| Total | 23 | 48,474 |

of birds she rears. Her financial circumstances improved to the point that she was able to recall her husband from Himachal Pradesh last year. "Now we have an assured income and there is no need for my husband to work as a wage labourer in Himachal Pradesh. He will live with me and practice agriculture because now we have good poultry manure for the field," says a now completely transformed Phulmoni.

A Better Life

Phulmoni's life goes on, but with a difference. She is now a self-assured woman able to feed her family well throughout the year. She has money to pay school fees for her children and has surpluses from which to buy medicines, clothes and even vegetables. She has purchased 0.2 acre of fertile low land. She deposits Rs 720 every month at SAHARA and Rs 2,000 at LIC (Life Insurance Corporation) every year. She has constructed another poultry shed by taking advantage of a full subsidy under the SGSY (Swarnajayanti Gram Swarajgar Yojana) special project to further increase her earnings.

Life however is not without its hiccups for Phulmoni. She is unhappy with her son Joymondal because he does not go to school, preferring to play cards, watch movies and drink *hadia* (local alcoholic drink) with his cronies. "Sometimes I think why I am doing all this. Despite having the wherewithal, my

Table 2: Phulmoni's Growth

| Resource | 1999 | 2005 |
|-------------------|----------|----------|
| Low Land | 0.6 acre | 0.8 acre |
| Medium land | 0 | 0 |
| Forest land | 3.4 acre | 3.4 acre |
| Bullock | 0 | 2 |
| Savings in SHG | 0 | Rs 3,120 |
| Savings at SAHARA | 0 | Rs 6,480 |
| Savings at LIC | 0 | Rs 500 |

son refuses to go to school. If I tell him to do so, he lectures me instead. Which is why I have taken out the LIC policy in my daughter's name," says Phulmoni.

"We now have enough to eat from my father's labour and the income from my mother poultry business ensures dal (pulses), oil, salt soap, etc. Even after all this she manages to save around a thousand every month. Why do I need to work? As for going to school, my father went but he still is a farmer. So why should I bother? Under the present circumstances I will not even get a job in the government sector even as a forth grade employee," reasons Joymondal. Phulmoni, like every other parent remains unconvinced and is bent on changing her son's mind. And she is a woman who gets her way once she makes up her mind about anything.

The Turnaround of Sarita Minz

From being ostracised by her self-help group for selling liquor to being a successful farmer, Sarita Minz has come a long way fighting dire poverty

Abdul Manan

Sarita Minz, wife of Birsa Minz, was one of the poorest women in Pakartoli hamlet of Kura village in Palkot block of Gumla district. She dropped out twice from the local Pradan-promoted self-help group (SHG) named Khajur Mahila Mandal (KMM). The other members of the SHG put forward three reasons for her repeated dropouts: she was not able to save regularly, could not repay her loans on time and used to sell *hadia* (local alcoholic brew) at home, which was not acceptable to other SHG members.

When she dropped out of the SHG the first time, I attended one of the group's meetings and convinced the members to take her back. I was naturally interested when I learnt that she has been asked to leave a second time and decided to visit her home one evening to find out the reasons. Both Sarita and Birsa were at home.

Dire Straits

Sarita said she was asked to leave because she was unable to quit selling *hadia*. She said it is the only way she could earn money to meet day-to-day needs, including buying rice to feed her family. It was clear that the family was indeed miserably poor to resort to such an unpopular trade.

I tried to find out the reasons for such abject poverty. Sarita and Birsa had a large family of 5 sons and 3 daughters. Their eldest daughter was an undergraduate student. They also had twin sons; one studying in the

fifth standard and the other afflicted with polio. The rest of the children were less than five years old.

Considering the large size of their family, their landholding was meagre at 60 decimals of lowland and an acre of upland and medium upland (tarn and choura). The food they could grow on their land was barely sufficient to feed them for 2-3 months in a year.

Added to their woes was the fact that Birsa was still looking for a government job at 40, and was negligent about properly farming his land. He also drank regularly. Birsa and his two brothers also owned some more land, a pond and two big wells. This property, as I learnt from other sources, was under dispute among the brothers.

Unutilised Resource

After I learnt the circumstances of the family from Sarita, I spoke with Birsa and arranged to visit the lowland they owned. When we went to the field I was surprised to see a huge well that had water even in the month of February (in 2005).

Such availability of water suggested the possibility of cultivating vegetables. I mentioned it immediately to Sarita and Birsa, who came up excuses like the problem of preventing animals grazing in the field, lack of capital, etc. However, Gohari Minz, a neighbour and member of Jeevan Mahila Mandal, who had accompanied us to the field, boldly

expressed her willingness to cultivate vegetables. She was also willing to help prevent grazing as the plot was near her house.

Finally, Sarita, Gohari and Jeeramoni Minz (member of Khajur Mahila Mandal in the same hamlet and sister-in-law to Sarita) decided to cultivate summer vegetables individually in a common patch of land so that they could monitor the crop collectively. They arranged for inputs from a seed shop in Palkot. They also followed the technical instructions sincerely.

Whenever I visited their field, I found that they were busy in some activity or the other: some were doing intercultural operations, some watering the crop, others looking out for grazers. The children were also involved. During the entire period, they did not face any problem of grazing.

Finally, they sold their produce and booked a net profit of Rs 2,000-3000 each by just investing Rs 300-400. Sarita earned a net profit of Rs 3,000. I was ecstatic because our motivational approach, close interaction and critical analysis had yielded good results. The common effort and involvement of the three families working as a group was equally inspiring.

Transformation

In the meanwhile, encouraged by the excellent results from growing summer vegetables, Sarita made plans to cultivate extensively in the Kharif season. She wanted to cultivate improved paddy (Lalat) on 50 decimals of land, SRI (System of Rice Intensification) paddy on 15 decimals and hybrid tomato in 10 decimals.

She harvested a record 16 quintals of rice (including 3.2 quintal from just one kg of

seeds through SRI). She was also able to earn Rs 3,000 from selling her tomato crop, in which she had just invested Rs 350. In November 2005 she became a member of Jeevan Mahila Mandal in Pakartoli.

Sarita also became a member of the Pradan-promoted Agri-Horticulture Self Supporting Co-operative Society Ltd. Pradan's Gumla team has promoted this co-operative in Palkot block with support from the state co-operative department. Only SHG members are eligible to become members. The society started functioning with Rabi vegetable cultivation from October 2005. It has provided inputs for cultivating different vegetables in cash and on credit to members. It also provided technical support (for instance in raising nurseries, sowing, etc.) and helped monitor the cultivation.

In the Rabi season Sarita cultivated peas, onions, gram and wheat with support from the co-operative. Enthused by the results she now intends to cultivate improved paddy, tomato and creepers in the forthcoming Kharif season. She has also started vermicomposting with the co-operative's support. Her husband and children fully support her in her endeavours.

Sarita has quit selling *hadia* because she now earns enough to fulfil her daily needs. She has regained the smile she had lost unknowingly due to extreme poverty. There are many such Saritas fighting with the disease of poverty. Our main task is to find ways to enable them to generate livelihoods in a sustainable manner. How we address this task is something that we continuously need to reflect upon.

The Making of a Grassroots Worker

Direct encounters with rural life in Girjatoli provides inspiration to change things for the better in rural India

Kuntal Mukherjee

I am the only son of my parents. I graduated in agricultural studies. When I was a student I dreamt of being a theatre actor. I was closely involved with cultural activities at the university. My first experience of village life came as part of a undergraduate programme. Although it was not a detailed study, it made me curious about rural life.

When I was studying for my Masters degree, I went to a tribal village for my survey work. It was the first time I saw the condition of life in a village at close quarters. My guide encouraged me to interact closely with villagers. This interaction was a turning point in my life. At about the same time, I got an offer from Pradan to join the organisation as a development apprentice. It took me only an hour to make the decision.

In Pradan, when a new development apprentice joins, he stays for two months in a village in the operational area of a designated field team. This helps a new person to become aware of village conditions and to adjust with the new (unknown) situation.

It is therefore a period of adjusting and accommodation. The adjustment and acclimatisation are required because of two factors: the 'newness' of the apprentice and the unknown village conditions.

When I went to stay in a village as part of my apprenticeship, I thought I faced too many problems. At that time I was not well

conversant in Hindi and Sadri (the local dialect). How was I to communicate with the villagers? I however told myself that everybody was a new person in this field at some time. If they have been able to overcome the obstacles, why couldn't I?

Guided by Seniors

I took on my village stay as a challenge to be overcome and intended to eradicate all obstacles. However, whenever my senior colleague Kumar visited me (which was frequently), he always asked me whether I was comfortable. It took me some time to understand why he was so concerned about my well-being.

During my stay in the village I think I got closer to the soil. When I wrote my report on the village stay, I highlighted my experiences of the village but my guide Nirmal advised me to emphasise on my 'self'. At that time the objective was not so clear to me. I now realise that it is important for all of us to judge ourselves in the context of our work atmosphere. All of us try to give 100% to our work, but can we do it mechanically? I think not. So this self-exploration is very important, especially in the context of grassroots work.

I stayed in two villages for a month each. In the second village I stayed in order to launch a horticultural project. From my experience I can say that it is important that the design of the village stay is slight-

ly modified. It is better to divide the stay in two different villages for one and half months each. An apprentice can then judge himself in two different atmospheres.

The village stay part of my apprenticeship influenced my subsequent work. It was a time I explored myself in a new atmosphere, which allowed me to build platforms to sustain myself. Today, when I go to the field on any work, I try to have a clear perspective of the context in which I would need to work. Only then I try to motivate the people in some endeavour.

Snapshots of Girjatoli

When I went to Girjatoli village in Palkot block of Gumla district, I carried with me some predetermined assumptions. I thought that village folk were 'simple', poor, and lacked knowledge. I also thought that I would face some discomfort that I would have to fight forcefully.

When I actually arrived in Girjatoli and started living there I encountered conditions that seemed problematic to me. There arose any questions in my mind. For instance, why were there no latrines in the village? Were the villagers too poor to build a latrine? Why did some villagers go barefoot? Were they too poor to buy chappals?

On the question of footwear, I studied the villagers closely and realised that many of them did own a pair of chappals, which they only used when going outside the village to visit relatives or some other work.

I also conducted my own informal survey and found that there were indeed no latrines in the village. I also found that although 16 families out of 23 in the village owned chappals, only 3 wore them

regularly. I tried to find the real reason behind this and found that it was not related to poverty directly but resulted out of a lack of awareness or education about general health and hygiene.

Discarding Preconceived Notions

I also had another preconceived notion that villagers had low technical knowledge about agricultural operations. But when I started personally interacting with the villagers and discussed agriculture in self-help group meetings, I found out how wrong I was. The people were not only knowledgeable about it but were also very positive in the attitude.

On the flip side, however, I found that most were unwilling to experiment with new practices to improve productivity. At first I thought that their conservative attitude was due to financial backwardness. Later I found out that it was not the only cause of their unwillingness, but family problems (like lack of work, unhappiness, etc.) also played a major role in the decisions.

The situation of Somi Kiro is a case in point. Somi's husband was old, did not work and was a drunkard to boot. Her only son had migrated to Punjab and she had no contact with him. Her only daughter had committed suicide. After observing Somi's situation, new questions arose in my mind. Is the just lack of capital, developed technology, labour, and low quality of land the only factors for rural poverty? Or is it that harmony and happiness in a family a major factor in that particular family's development?

Another example is illustrative in this regard. I found a villager named Cyril Kongari young but mentally challenged. But his wife, Celestina, was very casual

about it. I found out from others that they belonged to the same village and had married out of love. So there was a peculiar shyness in Celestina. She thought everybody in the village knew about their past, so what could she say about Cyril? She was therefore fatalistic and could do nothing to improve her situation. It was clear to me from this that human psychology is also a major factor in development.

Peer Pressure

I discussed this with other villagers, senior colleagues and my guide. They provided a new dimension to my thinking. I found that social pressure could be effective on a 'laggard' person. The advantages of social cohesion in a village became clear to me. I realized that 'felt need', or making a person feel his 'need' through social motivation is important for developmental work in a context where individual capacities are poorly developed.

At the end of my stay in Girjatoli I can say that new experiences have reinforced my conviction that 'know a village' and 'back to the village' should be our national slogans. I think it is important to get closer to villagers. A lot of things became clear to me during my village stay. Perhaps I am still in the dark about many more things. But I did find out that the discomfort I dreaded was simply not an issue any more. After the days in Girjatoli I am convinced about the need for change. Who is going to bring it about. Can I do something about it?

Lastly, a question still remains in my mind. If all these problems are solved in the future, if all villagers have their chappals and latrines, can we say the needs of development have been fulfilled? What is the

real end of development? I am unable to answer this now. I need more experience, study and observation to be able to address this prickly issue.

One thing is clear though! I will search for an answer through my work in villages. The stay in Girjatoli has added new dimensions to my thinking. I have now realised the vast difference between theoretical and practical knowledge.

The past five years of my life has been a period of structuring and restructuring. New experiences are providing new directions to my life. It is through this new life, new sensations and new experiences that a development worker can chart out a path for himself, enrich his professional skills and be of some use in the development sector.

Present a New Idea for Peer Review

Pradan has always been in the forefront in innovating on new ideas that could be implemented at the grassroots. **Concept Papers** in NewsReach are a way to share and air new untested ideas to solicit peer feedback. If you have a new idea you would like to test before implementing, send us a 2,000 word **Concept Paper**. If you have experience or views on any **Concept Paper** that would help the author, email us at newsreach@pradan.net.

Rice Revisited

Cultivating paddy using the SRI technique has made a good start in Gumla

Kumar Ranjan Parhi

The Gumla team has made a concerted effort to promote paddy cultivation in the area using the SRI (System of Rice Intensification) technique. Although there was some initial scepticism about this new methodology, the results were beyond our expectations. We had thought that we would start with 100 families but ultimately more than 400 families participated in the intervention. They cultivated SRI paddy on 30 decimals of land each and the yields were encouraging. We intend to scale up the intervention considerably in the current year.

Process Followed

We adopted the following process to motivate and convince farmers to adopt the new method of cultivating paddy:

Selecting patches: The professionals needed to identify the patches according to their productive potential for the purposes of good demonstration and subsequent propagation. We decided to select land that either had access to well water or fell under the command areas of the new lift irrigation schemes promoted by Pradan.

Selecting members: The concept of SRI was initially shared with the concerned self-help groups (SHGs). The innovative practices of SRI were also discussed. The SHGs then selected the interested members.

Selecting land: After the participants were selected, the amount of land to be cultivated through SRI methods, the location of the plots and how to proceed about it were

decided upon through discussions.

Training and video shows: Pradan professionals carried out intensive training at the village level by inviting participant families. We also staged video shows, which were extremely fruitful in generating animated discussions. This was followed by practical training at each selected hamlet on key practices like raising nurseries, transplanting and weeding (by Japanese paddy weeders).

Follow up and monitoring: This was done both by professionals and village level service providers. It included proper nursery raising, early transplanting, spacing, weeding and hoeing, split application of urea and alternative drying and wetting.

The process that we followed yielded fairly good results. The achievements of the intervention are given in box 1 on page 16.

The yields were encouraging. The yield analysis of 131 families cultivating on 30 decimals of land and the yield increments in the same plot in comparison to last year's yield of a sample size of 57 families are given in tables 1 and 2, respectively, on page 16. The learning from intervention is given in box 2 on page 17.

A series of articles on Pradan-promoted SRI cultivation were published in the local pages of two well-known newspapers (Prabhat Khabar and Dainik Jagran). We arranged for exposure visits by district officials, other NGOs working in Gumla and more than 500 farmers.

Box 1: Achievements of SRI Intervention

- All the participant families raised the nurseries properly.
- 70% of the total families transplanted 12-18 day old seedlings.
- Almost all the families accepted the square size spacing of either in 9"x 9" or 10"x 10" or 12" X 12" with a single seedling per hill.
- Weeding with Japanese paddy weeder was done for at least twice by 80% of the total families and thrice by 40% of the families.
- There were 35-40 tillers per hill on an average (a maximum of 80 tillers was achieved).
- There were on an average 20-25 effective tillers per hill.

We also organised 'Sri Dhan' melas (fairs) in each cultivation patch to publicise the SRI technique. SHG members were invited to the melas through letters. To invite non-SHG farmers we used the services of mobile broadcasts on loudspeakers. These we organised at the peak tillering stage so that the people could see for themselves the potential of tillering. The response was amazing. A large number of farmers are now motivated to cultivate SRI paddy in the next season.

One day, a hybrid paddy seed marketing representative asked me curiously, "I heard that Pradan is encouraging paddy cultivation with only 2 kg of seed per acre. Is it true?" At that moment I really felt proud of our intervention. I also found myself drawn into an animated discussion comparing hybrid seeds vis-à-vis the SRI methodology. I was able to convince the representative through logic and by showing him some photographs.

But the discussion raised some questions in my mind. How much land could one cultivate through SRI? Does this methodology really help in meeting the food requirements of our target families? Does this methodology replace hybrid seed generation or incorporate hybrid seeds?

I found that there are some issues we need to address and clarify. For instance, alternative drying and wetting is a tough job in the rainy season. Suppose a family cultivating SRI paddy has no irrigation support and a dry spell occurs during the drying and wetting process. What happens then?

The cost of irrigation is increasing with the increase in diesel and kerosene prices. I supported some farmers during a dry spell once for the sake of demonstration. Later the same farmers did not show any further interest to irrigate on their own. What do we do under such circumstances? I also found that use of compost fertiliser makes a significant difference in the yield. How are we going to address this adequately?

It has been our experience that weeding and

Table 1: Yield Analysis of 131 Families

| Production (quintal) | Families | Percentage |
|----------------------|----------|------------|
| > 8 | 7 | 5.3 |
| 6 - 8 | 16 | 12.2 |
| 4 - 6 | 57 | 43.5 |
| < 4 | 51 | 38.1 |

Table 2: Yield Increment of 57 Families

| Times | Families |
|----------|----------|
| >2 | 05 |
| 1.9 -1.5 | 28 |
| 1.5 -1.0 | 17 |
| <1 | 07 |

Box 2: Learning from the Intervention

- 2 kg of seed is enough for an acre of land as a large amount of seedlings were unused last year from 1 kg of seed for 30 decimals of land.
- 10 to 15 day old seedling performed the best.
- Spacing should be within 9"x 9" or 10"x 10" for our location.
- Weeding with paddy weeder definitely affects the yield and should be followed with split doses of urea application.
- There should be an insecticide in the package to control the infestation at the panicle initiation stage. As the vegetative growth is high, there is a tendency for insect infestation.
- Proper land should be selected or land required need to be properly levelled.
- Alternative drying and wetting is a tough job to maintain in the rainy season. People are not interested to irrigate paddy in the rainy season.
- Maintaining proper spacing in square transplanting is difficult. The women (who do the transplanting) are more used to very closed spacing with no regularity.
- The women are also accustomed to uprooting the seedlings in a bunch. In SRI the seedlings have to be uprooted singly along with the soil. The women find it more laborious.

hoeing 4-5 times is essential in the rainy season. The problem is that the farmers have too much on the plates at that time and they are too poor to pay for hired labour on this count. What do we do to address this problem on the ground?

There are also social issues that hamper the process of SRI. For instance, 12-15 day old seedlings should be transplanted but here a social norm that no transplanting takes place till a priest offers prayers. As a result 15-day-old seedlings were transplanted in one of the villages (Konderkella).

Case for Conventional Cultivation

There could also be a valid case made for the conventional way of cultivation. For instance, in 2004 we had promoted improved paddy cultivation where we supplied 10 kg of new seed against 1 kg of new seed in SRI per half acre. The yield was 20 quintals against 16.5 quintals in SRI in this year. Does that

make a strong case for SRI? Other things being equal, does it bring about a significant change in the yield?

These issues are need to thought out and debated critically so that we could come to a collective decision in the team. It would help us to better understand SRI and its utility for our target community.

As far as the community is concerned, there seems to be quite a bit of enthusiasm. Even the tough jobs like the special way of transplanting SRI seedlings were completed on time. But families found it difficult to do the numerous weeding with the Japanese weeder along with other agricultural tasks that are aplenty in the rainy season. It is clear that we need to streamline the training on the field so that all the critical processes of SRI are followed. This is necessary if we are to involve larger numbers of families in cultivating SRI paddy.

Water for Livelihoods

A successful initiative to promote community based micro irrigation systems in Palkot block of Gumla holds promise of further expansion

Amit Kumar

The primary motive behind promoting community based micro lift irrigation systems in Palkot block in Gumla was to build an irrigation infrastructure so that poor farmers are able to cultivate an additional crop (apart from the monsoon crop) in the Rabi season or early summer, depending on water availability in the constructed wells.

The first stage of the intervention was completed by June 2004. It consisted of discussing the concept of lift irrigation in various villages in the block. We got a positive response from the community, who helped us look for suitable places in their localities for digging the wells and laying the pipes. Although we had to keep technical aspects in mind, acceptability and consensus in the concerned community was particularly stressed upon.

We then helped form local irrigation committees called Sam Vikas Sinchai Samitis (SVSSs). The intervention was implemented under the government supported RSVY programme. All the SVSSs opened bank accounts. The community themselves selected their representatives (also signatories for the bank accounts).

The members of the SVSSs were actively involved in the implementation of the irrigation schemes such as contributing labour to dig the trenches for the pipes, purchasing all the materials required, maintaining accounts, etc. We facilitated the processes only when it was required and provided training in technical and management issues.

Work Starts Slowly

Another set of steps were implemented between June 2004 and July 2005. The district administration released the first instalment of funds (Rs 7,500) in the bank accounts of the SVSSs. The groups on their part selected and surveyed the sites (with assistance from us) to determine the length of pipes and the type of pumps required. We also conducted capacity building exercises for the groups once a month. The groups started digging the wells and trenches.

The work ground to a halt as the meagre amount released by the government was soon exhausted. This state of affairs continued till March 2005. We continuously interacted with the district administration to release further funds so that the work could go on. We organised field visits for the officials and were finally able to convince the concerned deputy commissioner. In April 2005, the administration released the second instalment Rs 32,500. The LI schemes got a fresh breath of life and there was no looking back after that.

We again organised training to motivate the groups to restart the work, which began on a war footing because the monsoons were approaching. Had the rains arrived before we completed the task, the effort of digging wells and trenches would have been in vain.

We also trained three service providers (SPs), selected from among local youth who have a good rapport with the commu-

nity across Palkot. The representatives of the various irrigation groups selected the SPs. The SPs helped us a lot, especially in taking stock of progress at various sites.

In the meantime the third instalment of state funds was released and orders were placed with suppliers for the pipes, machines and other accessories. All accessories were delivered right at the sites.

In Quick Time

We organised a practical training exercise for fitting the pipes and building the machine foundation at one of the sites, where 3-4 members from each group and the SPs attended to understand the basics of these operations.

We then helped the groups to schedule pipe-fitting and foundation building in each village. In many villages, farmers had to be persuaded to finish the tasks, particularly trench digging, as this was the most difficult task in the scorching heat of May. After a lot of effort from us as well from the farmers, most of the critical work was over before the arrival of the monsoons.

The entire community, and not just the group members, was involved in trench digging and pipe laying. The wholehearted community support made pipe laying and trench digging the easiest task. The people themselves divided responsibilities for tasks like clearing the trenches, carrying the pipes, fitting them, filling the pits, etc. The tasks were over in just 4-5 hours. This effort displayed excellent teamwork.

We completed the tasks of installing the physical infrastructure in a record 15 days. This impressed the deputy commissioner so much that he inaugurated several of the

schemes himself. The successful implementation of these systems helped us getting to implement 38 more small irrigation systems irrigating 64 hectares in Gumla by MESO (Micro Economic Service Organisation). Further, in March 2006, TWC (Tribal Welfare Commission) sanctioned Rs 80 lakh to us so that 500 families are able to irrigate 160 hectares. Both MESO and TWC cater exclusively to scheduled tribes.

Most of the groups have submitted their accounts and are almost ready to have their measurement books dully filled from the district administration. We are placing special emphasis on getting the accounts approved and the measurement books filled so that we can claim that the physical construction is over.

In the third stage of the intervention we promoted an agri-horticulture cooperative. We were determined to start the intervention in the coming Rabi season. We discussed the concept of the cooperative with the community and the response was most positive. All participant families were self-help group members and have already worked collectively. Most members of the sinchai samitis (irrigation committees) therefore came forward to become members of the cooperative.

We did some crop planning with the samiti members. As a start it was decided to procure the inputs collectively. Indents were generated to this purpose for crops like wheat, gram, rapeseed, lentils, peas and onions. In most of the sinchai samitis, the inputs were delivered at the village itself. All inputs were provided on cash and credit to the community through the cooperative. Further work continues with the help of the service providers.

Challenges Ahead

The physical construction of the irrigation structures is only the first step in the task of promoting livelihood for the poor with whom we are working. The first challenge is in terms of building ownership of the members of the irrigation groups. After construction only 5-10 good farmers might get more actively involved in the samitis of 15-20 members. As a result the ownership of all the farmers in the samitis might reduce once the initial euphoria subsides. We need to put special efforts in making the samitis inclusive so that the benefits of irrigation can be maximised to improve livelihoods.

The other big challenge is in motivating the farmers to use these irrigation structures properly. The escalating price of diesel is already the most often used excuse. We need to address this issue. We need to be prepared to convince the farmers with a strong cost-benefit analysis for irrigated agriculture. We also need to be very careful in selecting the crops and need to try different combinations of cash crops and cereals so that land use is optimised.

The team has a strong vision of the potential of cooperative irrigated cultivation. To convert the vision into sustainable livelihoods remains the biggest professional challenge.

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Mango Moves

Promoting mango orchards among tribals in Gumla is an innovative and challenging initiative

Pratyush Singh

Rain-fed farming is predominant in Jharkhand due to lack of irrigation facilities. About 90% of the net sown area in the state is dependent on the vagaries of the monsoons. The cropping pattern is dominated by rain-fed paddy in lowlands, and pulses and cereals in midlands and uplands.

A combination of monsoon farming and archaic cultivation practices leads to very low incomes from agriculture. These incomes are unable to meet the minimum needs of poor farming families, often leading to severe food shortages. Thus small and marginal farmers and their families are forced to migrate to nearby towns and cities in search of wage labour. The socio-economic indicators of these poor and marginal farmers clearly justify the need to achieve remunerative self-employment to prevent distress migration, develop sustainable livelihood, and improve the quality of life.

Promoting Upland Orchards

These objectives can be achieved through effective utilisation of the resources in individual farms. One key component of such integrated natural resource management is establishing orchards on uplands that are currently largely under-utilised.

Although the gestation period for orchards is relatively high (about 5 years), perennial horticultural crops are capable of generating assured and regular incomes despite

irregular rainfall that adversely affect seasonal crops like cereals and pulses. Apart from providing an assured income, these crops would also supplement the nutritional requirements of tribal families, leading to an improved quality of life.

There is a large amount of upland available in Gumla district. Field estimates reveal that about 60% of the uplands are grossly under-utilised. The per capita landholding of tribal families in the area we work in averages 2.5 acres. Due to lack of irrigation facilities and poor cultivation practices, a family is hardly ever able to engage in land use activities round the year.

Given this backdrop, the Gumla team decided to promote horticulture in project villages. Initially we decided to focus on developing mango orchards. It was a bold step for the team, as it was a completely new initiative in the area. Promoting horticulture amongst the tribal community was challenging. The outcome was uncertain, as they were ignorant about mango plantations on fallow land.

It was a new experience to all team members, especially to me. Although I did not know too much about horticulture, I was not very worried as I could learn the basics from organisations like BAIF, agriculture institutes and my colleagues. For me the greater challenge was to initiate an entirely new intervention in the area. The people

were ignorant about horticulture in my field area. To motivate the community to take up horticulture in the first place and then to be able to sustain the intervention was a serious challenge.

There were several questions we had to tackle. How to start? How to select the plots? How to mobilise the people? How would the people take to horticulture? We were however determined to intervene effectively in horticulture so that we could replicate the experience in other areas. We therefore selected contiguous plots of land so the farmers could help and learn from each other.

Selecting Plots and Participants

In order to effectively demonstrate the utility and importance of horticulture we decided that initially we would promote mango plantations on barren land. We selected four blocks in Gumla: Marda in Palkot, Dibdih in Gumla, Raghunathpur in Raidih and Sanso in Ghaghra. We selected barren land unutilised for years. The plots were selected in three different blocks so that they could serve as models for further promotion in their respective areas.

In selecting the plots our main consideration was that they should be contiguous patches of at least 4 acres. These could then serve as demonstration plots in later years. The other purpose of selecting contiguous plots was that they could be more easily monitored. With this in mind we initiated discussions with the community, visited several potential sites and measured them with the help of the farmers.

We focussed on selecting tribal families since MESO (Micro Economic Service Organisation) funds were available for the

intervention. Our plan was to plant 60 mango saplings in half an acre of land (for a single tribal family) so that after 10 years each tree would provide 40 kg of fruit a year. At the present rate of Rs 5 per kg, a family would thus be able to earn Rs 12,000 a year from their orchard. We selected 29 poor families in the three blocks, whose land was in a contiguous patch (table 1).

Table 1: Mango Plantations

| Village | Area (acres) | Families |
|--------------|--------------|-----------|
| Marda | 7.50 | 7 |
| Dibdih | 5.68 | 18 |
| Raghunathpur | 3.80 | 4 |
| Total | 16.98 | 29 |

Once the families and the plots were selected, Pradan professionals engaged the participants in area layout and in identifying the points where the pits would be dug. These were marked out at intervals of six metres (three metres at the outer boundaries). The task was performed with the participant villagers so that they develop ownership in the effort. It was encouraging to see all participants engaging enthusiastically in the exercise.

We also held meetings where all the participant family members (both men and women) were present. In the meetings we discussed the process of setting up and nurturing the plantations and emphasised the difference a well maintained orchard could make in their lives.

Digging Pits

Digging pits for the saplings was the next major task. It is a fairly laborious process, as a person could only dig eight pits in a

whole day's effort. Although the payment for digging a pit was Rs 12-15, getting the manpower was a struggle because the Kharif season was in full swing and all the families were occupied in preparing their field to cultivate paddy. We however managed to complete the task by employing some labourers from outside the villages.

The work was done rather hurriedly because the monsoons had arrived. In the hurry we could not ensure that while digging the upper layer of the dug soil be kept separately from the lower level. Luckily however, the growth and mortality of the saplings were not affected at the later stage, as we had feared.

Fencing the Orchards

We tried to plant live fencing along the boundaries of the orchards. This seemed to us the most cost-effective way and could be easily replicated in other plots when the intervention was expanded.

For the live fence we selected bamboo and a locally available bush called thethar, which grows and thrives even in extremely adverse conditions. The women of the participant families helped in collecting the bush saplings. We planted bamboo sapling at intervals of 8-10 feet interspaced with thethar, which would make for fairly rigid fencing.

We also planted gamhar, teak, seasum, acacia, subabul and ber saplings at intervals of one metre all around the fencing, at a distance of one foot from it. These trees would serve as windbreakers. We selected the windbreaker varieties because of their various uses: gamhar and teak for their fast growing timber; seasum for its slow growing timber; ber as a fruit tree and for its

lac, and acacia and subabul as fodder plants.

We purchased these plants from a forestry nursery in Keonara at Rs 1.5 per plant. The plants were planted with 3 kg of cow dung.

Filling the Pits

The participants then filled the pits with a mixture of 15 kg vermicompost, 1 kg bone meal, 1 kg of neem *khalli* (cakes), 50 gm of urea and 100 gm of potash. The areas around the pits were sprayed with Dursban to protect the saplings from termites. During the filling of pits we ensured that the soil was uniformly mixed with the compost and fertilisers.

It took one person to fill 15-18 pits in a day. We also ensured that the filled pits were half a feet above the ground level so that they would draw level with the ground after compaction. Professionals also ensured that the upper level of the soil was kept apart from the lower level.

Transplanting Saplings

The mango saplings were brought from Kolkata. The plants were three years old and were approximately of 4.5 feet high. We conducted on-the-field training so that the families planted the saplings properly. It is important to remember during transplantation that the entire root of the sapling lie below the ground level. The saplings were planted with the media in which they were packaged.

Ten days after the transplantation we found that the saplings were affected by the blight. We therefore sprayed a fungicide (Companion) to fight the infection. The problem is yet to be tackled completely, so we are consulting with horticultural scien-

tists from nearby Horticulture and Agro-Forestry Research Programme (HARP) in Palandu.

The planting of saplings was not without its lessons. We had transplanted the saplings 3-4 days after filling the pits whereas it should have been done after 20 days. The heat from the bone meal caused the roots of many of the saplings to shrivel.

The first intercultural operation was done 15 days after the saplings were planted with 50 gm of DAP. All grasses up to a radius of three feet from the pits were cleared. The second intercultural operation was done after 45 days with 100 gm of urea.

At this time we noticed that insects were attacking newly emerging leaves. They were laying eggs on the bottom layer of leaves. We tackled this by spraying Metasystox (2 ml per litre of water).

Intercropping

We encouraged the farmers to utilise the spaces between the pits by cultivating vegetables. The farmers planted kharif tomato, cabbage and creepers. It was however difficult to motivate farmers to cultivate in the uplands because these lands have traditionally been kept barren.

It was my intention to make the farmers aware that uplands are best utilised if horticulture is supplemented with vegetable cultivation. Initially the orchard owners were reluctant to cultivate vegetables in the plantations.

I called a meeting of the participant families, who said that they were fully engaged

in paddy cultivation and growing vegetables in their homestead lands. They had no time to engage in any other activity. Some families however found that they could spare some time to cultivate vegetables in the plantations. Fortunately, there was a well at one corner of the orchard and the owner had no problems sharing the water with others so that they could cultivate vegetables.

Now that we have started the plantations, nurturing them remains a challenge. The government funds will stop after three years. Will the people still be interested with no government support? How much impact would half an acre of orchard would have on a family? Will it be enough to keep them interested? Is there any potential for conflict between different families in developing contiguous plots? Since these are still unresolved issues, we need to continue to motivate the participant families so that problems that might arise in the future are adequately tackled.

The work of promoting more orchards, however, continues. In March 2006, the Tribal Welfare Commission has sanctioned funds to promote plantations on another 360 acres in Gumla and Ghagra.



PRADAN (Professional Assistance for Development Action) is a voluntary organisation registered under the Societies' Registration Act in Delhi. We work in selected villages in 7 states through small teams based in the field. The focus of our work is to promote and strengthen livelihoods for the rural poor. It involves organising them, enhancing their capabilities, introducing ways to improve their incomes and linking them to banks, markets and other economic services. PRADAN comprises professionally trained people motivated to use their knowledge and skills to remove poverty by working directly with the poor. Engrossed in action, we often feel the need to reach out to each other in PRADAN as well as those in the wider development fraternity. NewsReach is one of the ways we seek to address this need. It is our forum for sharing thoughts and a platform to build solidarity and unity of purpose.



Professional Assistance for Development Action (PRADAN)

3 CSC, Niti Bagh, New Delhi 110 049, India

Tel/fax: 011 2651 8619/2651 4682. Website: www.pradan.net

E-mail: newsreach@pradan.net