### **Transformation in Amagara**

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Amidst kilometre upon kilometre of parched, barren land lies the tribal village of Amagara—a verdant oasis of crops and vegetables—the result of the efforts of the farmers, who dared to risk and experiment with new ideas, methods and technology.

#### SNAPSHOT OF RURAL POVERTY IN EAST INDIA

Farmers without irrigation facilities in East India are almost invariably poor and at the mercy of the weather. The tribal village of Amagara in Purulia district of West Bengal is no exception.

When Avijit Choudhury from PRADAN went to Amagara in 1999, he found a community of 148 households, with the average family landholding being less than half a hectare. They grew little other than *kharif* rice, which provided them food security for only six months. The small area of boro rice in wet, low-lying areas mainly benefited wealthier families. Only a handful of families were sure of food sufficiency through the year. There was a high level of distress migration and school attendance was low, especially of girls, because parents could not afford the few necessary books, and children were often required to work in the fields.

Rice in the lowlands is normally a safe crop; however, the pressure of the increasing population has forced families to depend more and more on terraced and bunded uplands, where cultivating rice is risky; poor farmers know of no real alternatives to rice.

The need for water, both for irrigation and personal use, is vital. When asked what they need most, these farmers like others always say, "First give us water; then we can do anything."

#### THE EXCITEMENT OF WATERSHED DEVELOPMENT

Avijit commenced watershed development work in Amagara. He looked forward to seeing the local area bloom with the new opportunities that water harvesting would provide. He mapped the social, economic and natural resources with the community carefully. He developed a watershed development plan with the villagers; this was implemented in 2002–04, with funding from Sir Ratan Tata Trust. In a 'ridge-to-valley' approach, the most degraded uplands were treated with the 30 x 40 model, developed by PRADAN, and Arjuna plants were planted there. A

better quality upland patch of 7.4 ha owned by 34 families was planted with Amrapali mangoes to turn the unused fallow land into a horticulture orchard. A large community pond renovated and new ponds constructed to catch runoff water; 5% pits provided for 'rescue irrigation', seepage pits were dug in drainage lines and low-lying areas to provide a private water resource for a second crop after rice.

Farmers have learnt that previously unproductive uplands and medium uplands can be their most productive land, given the right crop and good management. This change in perception has been one of the prerequisites for changing lives.

Carefully designed learning activities build knowledge, skills and confidence; these are also prerequisites for changing lives.

were their medium lowlands (kanali) or their medium uplands (baid). Today, the same farmers say that their best lands are the uplands, where vegetables can be grown almost year-round, with the careful use of the new sources of irrigation. Perceptions of the value of have land changed. Perceptions about the self have also changed; many farmers say now that they believe agriculture provide a decent livelihood. Self esteem has gone up.

Beyond a curve in the road, and a failed irrigation scheme dating back to 1960, lies a verdant oasis—a 'new' Amagara. Every drop of water in the large pond is been used for irrigation. The last crops are being harvested before the farmers take a break to prepare for the coming kharif. Sukumar Hembrom is about to take his crop of bottle gourd to the market, the fourth successive crop over 10 months. Others have grown a second or third crop after rice. A group of four farmers cooperated to grow half a hectare of early tomatoes that fetched a high price, putting a smile on every face. Tomatoes, bitter gourd, pole beans, cowpea, radish, cabbage, cauliflower, cucumber, bottle gourd, chillies and some leafy vegetables have been harvested over 10 months, along with the traditional rice. Some mustard has been harvested in the low-lying land that drained well after the previous monsoon. It was irrigated only twice.

CHANGES IN PERCEPTIONS AND CAPABILITY

In 2005, every farmer said that their best land was the lowland (bohal) if they had any; next

Dungi Tudu speaks with pride for many women and recalls, "I started my journey as a member of my Self Help Group (SHG), which encouraged me to take up new initiatives." She was speaking of the time when vegetable cultivation was introduced in her village as part of the research project. As an SHG member, she ardently followed every training activity such as workshops on the use of pesticides and fertilizers; she participated in meetings and shared the results of the experiments, in spite of having no land. "I always dreamt of cultivating my own plot as I worked in others' fields," she recalled. The SHG took up a role i n project implementation; therefore, all S HG members were involved and participated in meetings about agriculture, and were greatly influenced by the new knowledge they acquired.

Dungi adds, "I am thankful to the ACIAR experiments that introduced us to vegetable cultivation. After seeing other farmers take up vegetable cultivation, I gathered the confidence to do so too. Today, my situation

has improved because of that. Now, my daughter and son go to school regularly and I have bought a bicycle for them. I am also repairing my house. I can take proper care of my goats and purchase fodder and medicine for them from the money I get by selling vegetables. Now I have stopped going to Burdwan altogether. If I go to Burdwan, who will take care of my crops and goats? I am trying to buy a small patch of land so that I can cultivate my own land. It gives me immense pleasure working in my own village and deciding on my own about when to work."

The changes go well beyond growing new crops such as vegetables; the cultivation of rice too is regarded differently. Subodh explains how he planted an early crop of direct-seeded upland rice in his poorest sandy baid in 2009 and harvested a good yield (4 t/ha) when most rice crops failed across East India (except in the lowlands) because of widespread drought.

### 1. THE CHANGING ROLE OF WOMEN

An important learning of the project is that women and women's SHGs can play an important role in making decisions that impact their livelihoods—their role need not be confined to issues around microfinance, gender and health issues. Although women typically do much of the agricultural work, neither they nor their husbands see them as farmers. By engaging women in planning new agricultural activities and in training, they change these self perceptions: "I too am a farmer," one woman said in a focus group meeting. The men were surprised at what the women could do. "We did not know they could engage in farming," one man commented while the others nodded in agreement.

Women need not be mere conduits for planning en masse or for credit availability. They need to be continually engaged with, to build their knowledge and confidence. Continued effort is needed to ensure equal participation in decision-making and planning, as well as in agricultural activities.

With agricultural intensification in Amagara, the work load has increased; the women, however, say they are happy because they know that this is going to improve the economic condition of the family. They are also happy and ready to share the workload because they are equal parties to judicious decision-making as a family. Women have a stake in success.

An important observation is that the 'space' for the woman in the family domain has grown, without causing any direct conflict. It appears that the menfolk have accepted the changing roles of women in the family. We see roles changing when the husband shares tasks that are typical of the woman's domain such as preparing the children for school, bringing water for household chores, and sometimes cooking in the absence of women. This is not yet regular, but it is a beginning.

# 2. HOW PERCEPTIONS WERE CHALLENGED AND CHANGED

Deep change occurs when farmers engage in activities that challenge their perceptions about the value of their natural resources. Changing these perceptions is the starting point of changing behaviour, that is, changing what is planted, and where and when it is grown. In Amagara, the challenge was to help the farmers opt for more productive ir remunerative cash crops, other than paddy, in the uplands. Although farmers in Amagara had seen the nearby non-tribal villages

growing rain-fed vegetables in the uplands, they were simply reluctant to change their traditional practices.

In one example of how this challenge was met in Amagara in 2006, PRADAN helped a group of eight farmers plan for cultivating vegetables. They planned to grow vegetables during the monsoon, to benefit from the high market prices. This was no easy task; yet the farmers

were successful in doing so, leading a farmer called Sushil to declare to a group of 30–35 farmers, "Now I am a good farmer; I can sit with my father-in-law." PRADAN's intention was not to 'teach' or 'train' farmers or to provide them with a technological package for growing vegetables. The aim was to provide a situation where farmers would 'learn' about themselves and their resources, as well as gain some new skills and knowledge.

Once the farmers understood the value of growing vegetables in the uplands by way of the income generated, their perception of the value of the uplands changed. Low-lying lands have always been considered valuable for growing rice, which ensures food security; the other lands, they came to understand, have value too, especially for cash crops.

The activity of vegetable cultivation was a research activity on 'changing perceptions'. It began with focussed interviews of the participating farmers on their knowledge, attitude and perceptions about themselves and their resources (various land types). The activity concluded with a second round of interviews to assess changes and to share

Engaging women in planning new agricultural activities and in training changed their self perceptions; men also have seen and have learnt to appreciate what women can do. These findings are also redefining how the Purulia team interacts with families, to improve agriculture-based livelihoods.

experiences. The activity gave the community a chance to engage in vegetable cultivation. Such experience, in which success was inconceivable, challenged age-old beliefs, as well as provided valuable knowledge and skills, in both women and men.

## 3. CREATING LOCAL KNOWLEDGE

This was a research project; the team wanted to develop new scientific knowledge

on appropriate technology for the region and to learn how to improve the processes used in rural development. In addition, they also wanted to help farmers build on their know-how. This is the spirit of true 'participation'. The team was careful not to make prescriptions and avoid being the 'expert' on whom the farmers depend. When specific questions (such as how much fertilizer is needed) were raised, the members of the team often replied that they do not know the answers and suggested, "Let's find out together." This is liberating for both the farmer and the professional.

Ashok Kumar, now based in the Ranchi office, explained that the experience of growing vegetables at Amagara built the capacity of farmers to develop their own knowledge of the local conditions. Each family owns different resources; therefore, it is impossible to make prescriptions that can be applied to every one. Farmers need to learn how to develop their own knowledge and techniques, often by adapting what they have seen elsewhere. This builds confidence and self-esteem. Ashok Kumar talks about 'co-travelling'

with farmers in a learning journey, that is, the 'Action Learning Cycle'.

The Action Learning Cycle begins with all participants reflecting on their present situation. In Amagara, the families were asked why they don't grow high value crops and what are their perceptions of themselves and their land? Most farmers said, "We are poor tribal farmers; our lands

are poor. Vegetables are grown by koeri farmers (traditional vegetable growers), who can take more risks; they have better skills and lands. For us, growing vegetables is very risky; if the crops fail, we will be in big trouble."

Following this reflection and discussion on what the farmers would like to be able to do, they were helped to turn this reflection into an action plan. In Amagara in 2006, eight

Empowerment of farmers means providing space for farmers to learn and not offering standard prescriptions. The professional also grows in the knowledge of technical matters and development processes. The farmers and the professionals are free of the 'NGO-dependency' syndrome.

farmers were willing to take the perceived risks of growing four types of early season vegetables in the uplands. The inputs and training as well as rigorous follow-ups were planned and provided for by the ACIAR project. The next step was to turn the plan into action by doing. plan the unfolded. important observations were made about the farmers' beliefs. attitudes

behaviours; data was also collected on the inputs used, processes followed and outputs delivered. The data were later shared with the farmers, who were encouraged to think about what had happened. From this reflection, the farmers were encouraged to plan again, this time taking lessons from their experience—lessons about themselves and their resources, as well as about growing vegetables. And so the learning cycle begins again.