



Adivasi woman displaying a variety of traditional seeds

Back to Nature

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Small holder food production based on local ecology is sustainable, resilient to climatic changes and nurtures biodiversity. The adivasi farmers of Malkangiri having reposed faith in ecological farming practices are regaining their control over seeds, thereby their livelihoods.

Malelguda, a small village in Malkangiri district in Odisha, consists of around 78 Adivasi households, majority of whom depend on rainfed agriculture. Adivasi communities are known for their traditional agricultural practices. However, with the advent of green revolution technologies with enhanced access to hybrid seeds and chemicals, they too started to shift over to modern agricultural practices. The increase in yields during the initial years inspired almost everyone to hold on to the new practices. Over the years, farmers realised that the yield increases could not sustain. But by then, the damage was done – to their soils, to their pockets and to their livelihoods.

Organisation for Rural Reconstruction & Integrated Social Service Activities (ORRISSA), with objective of reviving ecological agriculture in this region, started working with the village communities from 2007 onwards. With extensive discussions on

the food and livelihood crisis, communities identified the seed as the basic farm input on which they need to have control if they wanted to address the issue of food crisis. First, they decided to revive the traditional seeds and gain access and control on the seed resource. The communities went around in search of traditional seeds. Very limited amount of local seeds was available with the families. The millet and pulses seeds were collected from nearby villages through seed exchange process. The village leaders identified elder farmers who were willing to take up the task of multiplying the local seeds.

Communities resolved to revive the traditional cultivation models of Sabuja Padar, Gharabari to encourage households to nurture biodiversity in farming systems. To facilitate this, adivasi farmer groups worked on the approach of Seed Mapping at the cluster and village level and shared it at the Gram Panchayat Sangathans. This process opened up an opportunity for crop enrichment in the area. Exchange of seeds became a tool to increase food production rather than a personal choice of adopting local seeds at personal will.

Considering the strengths of the traditional mixed cropping practice, farmers in Malelguda decided to adopt the age old practice of mixed cropping on their up lands. Presently, 78 households follow mixed cropping using pulses, millets, cereals. The crops are integrated in such a manner that the communities are able to harvest food throughout the year, soil fertility is enhanced and resilience of the farm to climate change is increased. In 2014, around 10 households raised 1-6 varieties of crops and 7 households raised 7-15 varieties of crops on their land.

The communities grow food during the summer season also. The households choose drought resistant vegetable varieties and

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creepers, to manage vegetable production within the available soil moisture. Waste water from the household is being used to maintain the plants. Liquid manure is used to grow healthy plants. Besides meeting household needs, Ms. Manguli Pangi, one of the active woman leaders, earned Rs. 4500 out of the vegetables sale during the dry summer in 2012. In 2014, around 39 households are growing vegetables for a period of three months and 27 households are growing for a period of 4-6 months.

Emerging role models

Arjun Dura, one of the villagers visited some of the traditional family farm models. He was the first one to take the effort of multiplying the seed for fellow villagers. He also demonstrated that a mere 2 acres of land with mixed cropping systems using traditional seeds, could serve a family of 9 members with enough food. He also tried out the use of 'Tarala Sara' (liquid manure prepared by using the cow urine, cow dung and local tree leaves) in the *Til* Crop and realized the strength of local, appropriate methods. By the year 2012, Arjun had earned enough from the

aromatic paddy and *til* farming and released his family's 4 acre land from mortgage. His efforts also convinced fellow farmers of the village like Manguli Pangi, Chandrama Khara, Dukhia Benda, Jaya Madkami to adopt local resource based sustainable farming practices. Together with Arjun Dura these farmers reposed the faith on traditional systems and convinced the villagers to bring in dignity associated with it.

Bihana Maa

Adivasi women play a key role in nurturing the local seeds through selection, treatment and conservation. Recognizing this, the village committee of farmers of Malelguda identified Kanchan Pujari as the Seed Mother of the village. To multiply the identified lost varieties of seed the seed mother sourced them from the other villages and gave the seeds to the lead women farmers like Dukhia Benda, Jaya Madkami, Manguli Pangi, Chandrama Khara to multiply the seeds. They initially took up millet and pulses cultivation and shared the yield with fellow farm families. This helped other farm families of the village to exchange seeds while enhancing crop diversity on their family farms.

Kanchan is the contact point for all the farmers in the village. She helps farmers to map their cropping pattern based on the type of land they have. She encourages women to raise seasonal vegetable nursery so that all the families could collect saplings from it and raise in their backyards. Over the years Kanchan has been instrumental in organizing the annual and seasonal seed exchange among the farm families.

Poverty to prosperity

Communities which were hardly having food for four to six months in a year during 2009 have now accessibility to staple food for almost 8 months and other foods for 10 months in an year. The cash needs of the families are also being met by selling aromatic paddy at a premium price and vegetables.

Dependence on external inputs has considerably reduced, both for seeds as well as for other inputs. Communities are preparing the compost and liquid manure and are using them in place of fertilisers and pesticides. They have also availed support from the government in setting up compost pits.

The emergence of village leaders like Mr. Arjun Dura, Laxmi Khila and Chandrama Khara who passionately share the resilience nature of the local crops in the dry land conditions, promise a hope that this development will remain sustainable.

Farmers in Mallelguda now have better access and control over their seeds, inputs and food. With experience they have learnt how to come out of poverty and lead a dignified life.

Status of families with respect to food availability period at Malelguda village, Malkangiri		
Crop	No of Families	
	2010	2014
Paddy		
In Excess of 12 months of food for the family	0	11
12 months of food for the family	4	18
9 months of food for the family	15	21
Millets		
12 months of food for the family	8	11
9 months of food for the family	7	13
Pulses		
12 months of food for the family	0	2
9 months of food for the family	17	28
6 months of food for the family	10	15
Oil Seeds		
Families earned more than Rs. 10000 from the sale proceeds of the oilseeds grown by them	5	10
Mixed Crop on the Uplands (with local varieties)		
12 months of food for the family	2	4
9 months of food for the family	5	7
6 months of food for the family	3	10
Gharbari (backyard garden)		
12 months of food for the family	0	4
9 months of food for the family	5	13
6 months of food for the family	10	28

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