SUSTAINING SMALL FAMILY FARMS

Seed Mothers

Hundreds of Seed Mothers in Odisha, India in action to conserve traditional seeds





Save our Seeds campaign

It all started with a community consultation on protecting the bamboo in the forest in the year 2006. Availability of bamboo in the forest was becoming scarce and there was a report of fighting between villagers in want of some groups taking bamboo for construction of house. This has prompted a concentration action by the Peoples Organization to address availability of bamboo in the region. Bamboo is one of the key materials required by all the adivasi households for their day-to-day life for scores of utility purpose. This campaign, mobilized people from 6 grampanchayats of Malkangiri block of Malkangiri district to stop collection of bamboo sprouts from the forests. This was aimed at enabling the growth of bamboo in the forests. The adivasi women who are the primary non-timber forest produce collectors played an important role to ensure its protection. Soon the community have realized the loss of many other natural resources of the area which are the key resources providing them food and livelihood security. This process was first initiated with Misereor, Germany support.

Local Seeds

Many of the adivasi farmers have lost diverse varieties of traditional local crops while trying out market seeds. The local resilient crop systems got destroyed through this process. The small and marginal farmers have become food insecure. Investment in farming have increased the debt burden on famers. Worried over repeated failures of not able to make families food secure ORRISSA considered the advise of Elder adivasi Farmers to help revive the traditional forms of agriculture.



Manika Galari, Seed Mother

Enabling self-reliance

ORRISSA as a change agent have been promoting agriculture in the villages with small inputs on improved practices based on modern farming approach. However, the supports like market seeds, chemical fertilizers and pesticides, small irrigation pumps, post harvest machines, farm tools, etc. could not yield any sustainable result. It has been found that, for one reason or the other the farmers could not sustain the efforts and building value to these inputs. Looking at challenges with the farmers and having a notion that the farmers not adopting to modern practices have become an unending issue.

Community consultations reasoned that the traditional farming still holds ground. The People Organizations recognized the inherent knowledge of adivasi women on traditional farming wisdom. The male dominated Adivasi People's Organizations identified resourceful adivasi women in the villages and termed them as Seed Mothers. These Seed Mothers were the key to help ORRISSA team to de-learn the modern farming orientation and effect new learning from the community.

This process was not very normal as the Adivasi women couldn't believe that their knowledge would get respected and would help people. The Save Bamboo Campaign in 2006 opened the Pandora Box of opportunities. The strength of the community wisdom and common action started asserting the adivasi identity of living with the nature. The initial challenge was to bring in Dignity to the local Seeds and practices associated with it. The challenge was more pressing also to add objective value to the traditional practices in the minds of young farmers.

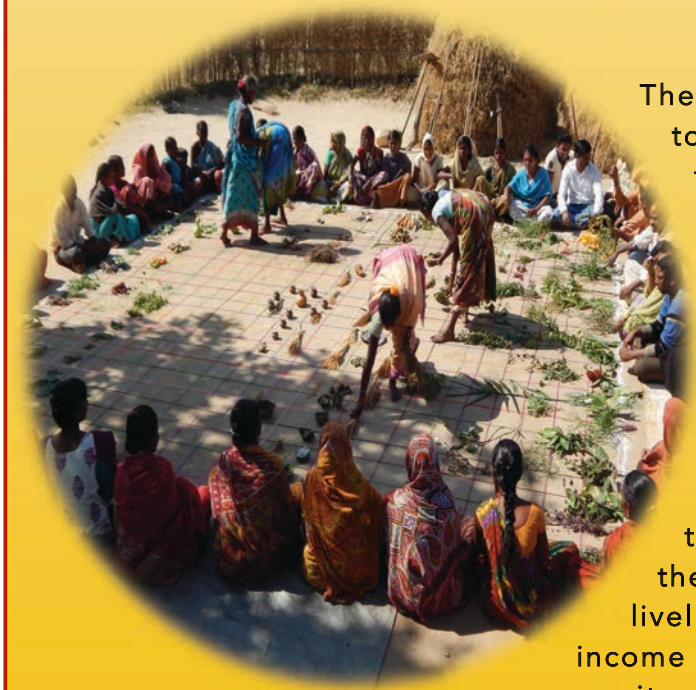
Seed Mothers mobilized the community at the village level. They also gathered the knowledge from the fellow farmers. The adivasi women group turned very active at the community as the subject of action was very close to their heart. The exchange visits of the local leaders and Seed Mothers to the *Chipko Andolan* at Uttarakhand and diversity farming among the dalit women groups in Andhra Pradesh (facilitated by DDS, Hyderabad) has helped the leaders to get inspired and motivate others to promote traditional seeds as natural farmers.

Crop Plan with Seed Mapping



Seed Mothers do organize annual Village Level Seed Mapping at the community level. Farmer of the village recreate the map of their farm land. Uplands, dry patches, low lands are identified in this map. The Seeds available with the families are also get listed through the process. Once seed and land types are identified the families then asked to choose the kind of crops they would grow on their land. At this point the families do exchange their seeds with fellow farmers. The village also lists out type of seeds it would source from other

Bio-Diversity Mapping



The Seed conservation starts with brining in dignity to the local resource base and farm wisdom through Community Bio-diversity Mapping. The farmers display their local natural resources and assert the values associated with it. This includes the economic, social and cultural facets linked to the local resource base. Management values of these resources are also acertained through cost of production and ease of access. The critical role of the local forests do get importance for its role in supporting the traditional agriculture, the animal poplulation of the households (which is a critical part of the family livelihoods) along with uncultivated forest food and income from the non-timber forest produces the community access freely from it.

Seed Multiplication



Crop specific designs do sustain the crop diversity. The Seed Mothers struggle to enrich the crop diversity in their villages. This is for the fact that, enough seeds are not available to support all the smallholder farmer families. The unpredictable climate change effects are further marginalizing the farmers. Seed exchange continues to be an intense engagement of the Seed Mothers. The village select willing farmers to first multiply these seeds which gets exchanged with the village. The farmers multiplying the seeds exchange the harvest with the fellow farmers in the village. The women group in the village many times raise seasonal nurseries to raise saplings of the fruit bearing trees and that of the vegetable saplings to help families multiply the seeds.

Pure Seed Production



To sustain the efforts of local farms, the Seed Mothers realized that Pure-seed production should be a continuous process to enrich the local family farms and that of the local crop diversity. This process is intense and time demanding. However, the resilient Seed Mothers continue to bring out new seeds from the local varieties. This process is being done through Selection (Pure Line Selection). The lead farmers and the Seed Mothers take extra care in identifying seeds from the time of raising nurseries, doing weeding, during the branching of plants, during fruiting and at harvest. The large number of seeds (or new seed varieties) has emerged through intense interactions of countless farmers across generations.

Nurturing Seeds

Seed collection

Starting with limited seeds was a challenge the Seed Mothers took on with confidence. Started with selected number of farmers to identify and collect good seeds from crop this process have matured in to a systematic approach and understanding some key steps to locate a good seed stock and multiply it.





Seed Storage

The wide array of community knowledge on seed storage gets further strengthened with adoption of shared knowledge and group adoption of practices. Seed Mother's continue to learn from outside farmers on new appropriate methods and then transferred to the other households of the village.

Crop management

Seed Mothers steer the new learning on in-situ conservation of water and soil nutrients through crop seasons. The issues related to land preparation, seed treatment, weed control, management of long dry spells, flash rain and pest management form part of the crop plan strategies on a regular basis.





Engaging men

While the Seed Mothers take the lead the Men farmers are not behind. The men farmers took equal pride in the conservation and improvements of the local crops. Few lead farmers have established community nurseries at their villages to multiply local varieties of traditional horticulture and forest species.



We nurture the Seeds, Protect it, improve it and emotionally attached to it like our children that is why we are Seed Mothers
- Kamala Gadaba, Seed Mother, Adamunda, Malkangiri

We get food and income from Forest. Feel more secure with the forest coming close to our habitation - **Jamuna Kirsani, Seed Mother, Malelguda, Malkangiri**





Millets are the key staple food of my family and it feeds us all through the year. This crop is resilient to change in climate conditions.
- Radhika Sisa, Gangala, Malkangiri



Local Food festival

Ease of access and nutrition is the essence of local food

The Seed Mothers lead the village level food festivals with fellow women and men folks. The women cook various recipes using the seasonal food sources around the habitation. This effort aimed at asserting the traditional food identity of the adivasi clan. The women serve food to all and engage men in the discussion around the cultivated and uncultivated food sources.

Many times the seasonal food mappings are undertaken as the first step to the food festivals. The women display the variety of un-cultivated food available in the natural surrounding and the cultivated food. The diversity of the uncultivated food available in the area authenticates the importance of forest in adivasi day-to-day life and food habbit. Food festivals are mostly theme based. Themes like dry food, forest food, un-cultivated food, fish from the wild and meat from the wild are chosen to initiate dialogue on the subject.

The adivasi youths are also given support to prepare mainstream food forms using the local food grains. The youths now prepare finger millet soup, sweets using millets and bake millet cakes.

The seasonal food festivals authenticate the diverse food culture of the community. The food festivals along the seed fair assert the adivasi food identity with its rich heritage and nutrition component to the visitors and members of mainstream society.



Community Seed Fair

Community Seed Fairs brings together hundreds of adivasi farmers to spread their knowledge and awareness of traditional seeds, to exchange seed varieties with other farmers, and importantly to reduce dependence on markets for agricultural seeds by promoting the use of traditional varieties. This is celebration of the their bounty of local biodiversity. This celebration authenticates the community belief on the traditional farming systems have the capacity to feed the families in the villages and for protecting local natural resources. This celebration brings in dignity to the priceless treasure of local natural resources. People have travelled from far and wide to participate in the exchange of traditional seeds. This way the local farmer organizations legitimatize their efforts on sustaining local agricultural systems based food productions.

Community Seed Fair is a new addition to the adivasi cultural celebrations since the year 2007. It is a fact that Nature is central to all of the celebrations of the adivasi clans. For all festivals the mother nature is worshiped in one form or the other. However, this Annual Seed Fair is more of a celebration to tell the world about their roots and rich resource base. Named after the local traditional seeds, this fair celebrates the diversity of local farm seeds along with the wild food sources of the area.

The Seed Mothers bring traditional seeds decorated earthen pots for display at the fair. The farmer organization use the occasion to sensitize the mainstream society about the richness & diversity of the adivasi crops and their value based recipes. Farmers discuss on the aspects of Traditional Seed conservation, exchange of seed, recognize the good work of seed mothers. Farmer's with innovative farming methods get awarded on this occasion. Emerging challenges on the aspects of in-situ water conservation, bio repellents, nutrition garden, poly-bed vermin units, Soil fertility improvement and Pest & Disease management and vegetable cultivation etc are listed in the agenda of public debate. The Seed Mothers prepare millet based food recipes, sphere head the nutrition value of the local crops during these fairs.

The fair location rotates every year as new villages host fairs on their turn. Seed Fair planning, mobilization of resources and management of the seed fair agenda are entirely done by the community leaders with support from the Seed Mothers. Young man and women prepare the venue using local materials, cook and serve food to thousands during the fair. The small family farmers host the visiting Guests in their homes.



Annual Community Seed Fair					
	2011	**2012**	**2013**	**2014**	**2015**
No of local farmers gathered	5438	6548	9821	12847	14581
No of farmers from the non operational area of ORRISSA participated	1241	1320	1386	1342	1782
No of women farmers brought seed to the fair	710	863	1289	1530	1872
No of farmers awarded in the fairs	18	24	29	35	47
No of total seed varities displayed (cultivated)					
No of forest species displayed	261	298	331	381	383
No of uncultivated forest foods displayed	29	31	21	47	43
No of of livelihoods linked forest species	17	17	19	21	18
No of traditional agro-implements displayed	13	17	17	19	18
No of sustainable agriculture practices modelled at the fairs	3	4	4	14	21
No of traditional livelihoods models displayed	2	3	4	4	5
No of stalls from outside of the district	5	7	7	9	17
No of Farmers from other districts participated	51	72	189	163	239
No of traditional food receipes were on display and sale	23	29	37	51	46
No of traditional dry foods on display	11	16	17	19	23
No of farmers exchanged seed at the fair	1872	3249	4270	4737	4911
No of farmers exchanged short duration local paddy seeds	703	413	509	521	431
No of farmers exchanged local Millets seeds	203	271	253	391	274
No of farmers exchanged local Pulses seeds	318	383	371	483	369
No of farmers exchanged root varities seeds	181	253	176	291	267
No of farmers exchanged vegetable seeds	252	293	281	258	294
No of visitors from outside of State	11	13	21	13	17



Seed Mothers exchanging seed



Seed on display at the fair



Elders act as guide

Elder women farmers scrutinize the seed samples gathered at the fair place. The seasoned eyes of these women help locate the quality seed traits of different seeds families.



Young women's Pride

The young women form a sizable number in the huge community gathering at the Community Seed Fairs. Community Resource persons mostly Young Women are now emerging as practitioners and trainers on Sustainable Agriculture Practices.



Decorating Seed Pots

Natural colors of Local Seeds adorn the attractive designs of seed pots carried by the Seed Mothers to the Fair. The officials and the opinion leaders are influenced by this natural wisdom.

Local resources mobilised for the Community Seed Fair					
	2011	2012	2013	2014	2015
Rice in Quintals	47	56	62	71	72
Pulses in Quintals	1320	1386	1342	1782	43
Pulses in Quintals	3	4	5	7	7.5
Cash contribution in lakh	0.6	0.65	0.7	0.72	0.81
Stitched Leaf Plates in numbers	35000	34000	34521	35680	35711
Fire Wood in cart load on rotation basis	15	17	19	21	21
No of Cluster Fairs	4	5	5	6	5
No of families hosted the guests	67	69	57	61	43
Volunteer labour to decorate the Fair Site, logistics, food preparation and serving, descipline (Man Days)	621	653	681	732	753

Integrated Backyard



5321 Households have enriched their Backyard Gardens and getting food between 6 to 11 months in the year. Out of these 3272 have their own compost pits and 3267 use Liquid Manure.

Millets

More than 4700 families are now growing 2 to 3 varieties of millets

2531 families are growing 4 to 5 varieties of millets

1187 families are growing more than 5 varieties of millet

135 farmer are taking up line transplantation of millet

4874 families have taken up millet centered mix crop



Seed Mother

Story of Jamuna Kirsani

Malelguda Village, Udupa, Malkangiri, Odisha, India



I really feel proud of being an Adivasi Women and as a Seed Mother.

I am Jamuna Kirsani the Seed Mother of my village Mauliguda in Malkangiri. Like me there are more than 70 adivasi Seed Mothers working in our locality to collect, conserve and propagate the local traditional seeds. We take care of our local seeds as we take care of our children and family. Women are best skilled to nurture the seeds. Seeds are our life and our identity. The knowledge around our local seeds and farming systems are travelling from one generation to the other and we experience it through our day-to-day life. We never buy seeds but exchange with other farmers. Our seeds were evolved through our intense resilience efforts across generations. Now I have more than 61 varieties of Paddy seeds and 123 varieties of pulses, tubers, oil seeds, domesticated wild food, vegetables and greens.

I have learned from visitors (and also attending various meetings outside) that our region is highly eco-diverse as well as one of the birthplaces of Rice. Our forefathers were agriculture pionner communities who domesticated and gifted Rice to this world that is the staple food to more than half of the global population today. Why we allow our own seeds to vanish. Who will protect our forests if the local seeds are lost?



Now I have more than 161 varieties of Paddy seeds and 123 varieties of pulses, tubers, oil seeds, domesticated wild food, vegetables and greens.

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The young torch bearers

Adivasi children and youth find the pride in their roots. They are on the front of celebrating the bounty of local bio-diversity. Reclaiming the traditional Adivasi identity is the core value of the Community Seed Fair endorsed by the youth now.



Seed Mothers at Places



Seed Mothers at Un-cultivated Forest Food Meet, New Delhi



Seed Mothers with the ORRISSA team



Seed Mothers at Kolkotta Exchange meet

Organization for Rural Reconstruction & Integrated Social Service Activities (ORRISSA)