



Grassroots women leading the climate resilience initiatives

The fisherman and farming communities on the Bay-of-Bengal coast have been living in harmony with the nature since generations. The high tides, cyclones, high intensity rain/wind and floods have been a way of life for them as families have endured their hard experience to become resilient to the risks of repeated disasters brought in to their villages. Frequency of Cyclone in the villages have been a regular feature over the last 10 years. First ever worst cyclone struck the area in **1999 Super Cyclone** which almost **destroyed the villages and its ecology** followed by heavy flood in the year 2001. Three other major cyclones namely **Hudhud, Philin, Titli** have occurred in the last 5 years. In- addition to this, the year **2018** have witnessed excess **800 % rain** compared to the average rainfall in this area.

Shrinking of the sea and the largest salt water lagoon Chilika connected to the sea have slashed the fishing opportunities for the highly concentrated fisherman communities. The fisherman communities (four project villages have fisherman communities) migrating in search of wage earning outside, while women of this community work mostly as agriculture laborers. Most of these fisherman families are landless and few have small patches of land. Struggling for the portable drinking water, drainage for the water logging, sanitation, housing, sufficient cyclone shelters, communication, sustainable livelihoods with accessible health and education are the areas the communities are deprived to have rightful access. However, overcoming all the odds the collective of the grassroots women through their self-help groups are exploring ways to bring positive changes to their lives while they live in vulnerable conditions from repeated disasters. Exploring the locally available natural and other resources combined with traditional wisdom and bringing in appropriate methods/technologies, these ordinary women creating hopes for the most vulnerable families pursue livelihoods to overcome their challenges as they empower the community to face disasters with efficient plan, sharing of responsibility, mutual support and ability to negotiate with public institutions. We present here some of the resilience actions taken up by women groups and their members.



Bringing back past glories

The vulnerability mapping and local resource analysis with the village women groups exposed the vulnerability areas of farm inputs and its costs draining the marginal farm families. Further probing on the issue revealed that the marginal farmers spending on input costs can be managed with small practice changes using the locally available materials. The women also expressed that, after the household cattle were dead in the worst cyclones, the families lost interest in keeping them. They don't have resources to buy milky cows. The question before them, how can the sustainable farm practices get a boost without the Cattles in homes? Domestic cattle are a key resource for farm input management as cow urine and cow dung play a key component to prepare diverse organic manure and pest management liquids. Now with CRF the women are procuring cows from other places to revitalize their crops with no chemical inputs. The cost of cows compared to one season input costs and giving a boost to their farms too. The trend is picking up in the community as many have already saved their hard earned cash while they adapt to the sustainable agriculture practice of spraying cow urine on their vegetable crops replacing harmful chemical formulations and preparing other inputs.

Sudehsna Nahak of Jharedi village purchased a cow with CRF fund and started preparing various handmade liquids (i.e *Brahmastra*, *Nimastra* and *Liquid Manure*) for the farms using cow dung and cow urine and selling it to other farmers in the area. This is additional to the milk the family sale to get cash income. The village women self-help group working on the revitalizing the village economy has encourage diversified ecology based women-led micro-enterprises that enables the village to grow with resilience adding value to one another.





Love for the traditional vocation

Our roots are with our land and its resource base. Despite of all the challenges of severe climate change effects, the families endure their relationship with the local resource base. They love their family, their community and the natural resource surrounding them. Sometimes the life pressures are so harsh and rude the families get pressurized to choose alternative options even if they are not sure

whether the new option would work or not. Sustainable Fishing has been a challenge as cyclone have destroyed country boats and nets. The receding waters of Chilika add to the owes as competitions galore with the rise in the population of fishing communities who are primarily landless. Post cyclone, while houses are given to the families, many landless fisherman families have not received the support as they don't

own land and government land is not available in the vicinity. Among them few have moved to far-away places as government allotted houses to them on government land available there. However, we see the young women like, Janaki Behera, still love the family vocation and choose to buy fishing nets with CRF support to continue doing the traditional livelihood.



Janaki and husband have not accessed any credit facilities from the local commercial or cooperative bank. They couldn't dare to approach the Money Lender as the interest is too high to afford and intimidating. The group process has enabled her to explore the possibility of continuing with her traditional vocation with support from group CRF to repair the family country boat as she bought a new fishing net to catch fish.



Adopting to local resilient seeds

Engaging the grassroots women to explore resilience to the pressures on food production systems and livelihoods have made them to re-invent local solutions. The women turned innovators to bring back the wisdom driven traditional knowledge to find locally relevant alternatives. The women members collaborated with fellow farmers in adivasi areas to bring back the

Aromatic Rice with host of other traditional seeds through exchange of seeds. This has reduced their burden on paying for the seeds and costly farm input as the seeds are resilient to water logging and requires no chemical inputs. The price of the rice is a demand for its aroma and being free from chemicals. Depending on the land types other farmers also choose traditional long grain rice and rice-with-starch.

Taking a lead Reena Behera of Binchanapalli village took up traditional aromatic (Kala Jeera) Rice replacing the hybrid. She is expecting 7 to 8 quintals Yield from the land which in market value would be worth rupees 24500. Earlier she was doing other hybrid varieties of rice in the land and getting rupees 10000. The women group raised nurseries for the rice varieties and encouraged families to take up line showing as it required less seed volume and the enables good growth of the stem to withstand heavy winds during the crop season.





Seed Mother with the women farmers with local seeds (in-set). The women in Gourangapatna village doing the PRA mapping of village resources.

Women intensifying their resilience

The vulnerable village women with their deep understanding of the local resource base, map its diversity as well as climate risks they face. Based on these, they also evolve simple ways to help each other to overcome the challenges. Using Participatory Rural Appraisal (PRA) tools they engage all the families to be part of this enabling process. The focus group discussions help women members mostly from vulnerable women to chart out the stress areas of their livelihoods as well as basic needs. The women primarily focus on local opportunities and resources available in the village and neighborhood while finding alternative solutions. Their focus also on the aspects of low or no investment which can enable the cash poor families. The women also learning the skills of engaging with the government plans and program as they help members to access supports under various schemes.

Women Farmer Leaders	Name of village women Self-Help Groups	CJF Actions for rejuvenating village economy	Women Farmers multiplying traditional local seeds replacing Hybrid seeds (staple paddy)	
			Type of seed	No of farmers
Laxmi Behera	Thakurani	Tailoring	Aromatic Kalazeera	26
Nayana Behera	Thakurani	Fishing Net	Aromatic Gangabali	28
Dhani Behera	Brundabati	Village Shop	Long grain Sunakhadika	23
Madhuri Behera	Brundabati	Fishing Net	Starch filled sticky rice	3
Pramila Behera	Maa Kalijai	Village Shop	Other initiatives	
Mahadei Behera	Maa Kalijai	Rice Vending	Azola for crop fields and animal feed	90
Apasari Behera	Amareswar	Fish vending	Improved compost pit	17
Geli Behera	Amareswar	Vegetable vending	Iron rich Finger millet	6
Rujita Behera	Maa Laxmi	Fish Vending	Paddy Saplings nursery	2 women groups
Janaki Behera	Maa Laxmi	Fish Vending	Vegetable nursery for nutrition rich plants	3 women groups
			Seed Mothers acting as seed savers to help farmer	9



The women groups in the villages are learning ways to negotiate with the government to address the community cause of safe drinking water, adequate cyclone shelters, effective drainage, irrigation to the crops and many more in the times to come to build on their efforts of resilience building.

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