



Village Housewives Become “Climate Warriors”!



Regional Centre for Development Cooperation

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Village Housewives Become “Climate Warriors”! Case Studies from Balikuda, Jagatsinghpur

The Regional Centre for Development Cooperation (RCDC) is implementing a multi-country climate change adaptation and disaster risk reduction in 84 villages spread across 8 GP's in the Rajnagar and Balikuda blocks of the two coastal districts Kendrapara and Jagatsinghpur of Odisha. This initiative being implemented in the two countries of India and Bangladesh is being facilitated by Concern Worldwide and supported by the European Union.

Among other climate change adaptation options, homestead gardens using organic inputs and the supply of a women friendly gardening kit found favour among the women members of the coastal communities through the Community Risk and Vulnerability Assessment (CRVA) exercise where women expressed their economic and health vulnerabilities. In the year 2012 a total of 1000 households were provided seed support for vegetables and horticultural plants suitable for the region. The women friendly gardening kits were provided to 47 households of both the blocks. Training sessions on efficient design for home gardens, cultivation techniques and preparation of organic manure and bio-pesticides were imparted to the women by resource persons engaged for the purpose in the month of September 2012. Select women were also given in-depth training at an NGO called Sambhav in Nayagarh to learn the techniques and popularize them in their areas.

Why homestead gardens?

During the CRVA process the health status of women and adolescent girls emerged as a problem area particular as this category bore the maximum brunt of climate change impacts and the proactive role of women during and after disasters required an improved health status to face up to the challenge. The women also highlighted the need for a nutritious diet for their family members. Many of them were cultivating vegetables in their homestead land but the effort was unorganized. They used chemical



inputs that were perceived as a threat to the health of the users as well the consumers of food and to the environment as well. A need was felt to expand the varieties of vegetables cultivated and to introduce horticultural plants for further nutritional support.

The need for women friendly gardening kits

The drudgery of women in attending to their chores came up repeatedly during the Knowledge-Attitude-Practices (KAP) study and also during focus group discussions (FGD) with the community members during early 2012. As male members stay away due to migration from the area it falls upon the women to take up agriculture and homestead

garden activities. The tools used for the purpose are heavy and unwieldy for the women. In this perspective it was decided to support some kitchen garden tool kits to women headed families, poor marginal farmers having very less cultivable land and backyard cultivation and thereby reduce the hardship and physical stress of the women. After assessing the needs of women the following components of the tool kits as per the following table was finalized and distributed to 47 households in the project area.



Sl	Particulars	Description	Quantity
01	Sprayer	2 litres	01
02	Rose Can	5 litres	01
03	Khurpa	Big Size	01
04	Khurpa	Seedling	01
05	Trawl	--	01
06	weeder	--	01
07	Sickle	--	01
08	Garden Hoe	--	01

Today I am known as the organic woman!



Ms Geeta Sahu, aged 42 is a resident of the village Subarnapur in Kushupur GP of Balikuda block in the Jagatsinghpur district of Odisha in India. Her husband who is a farmer and her two teenage sons consist of her immediate family. Her elder son has migrated to Chennai and is working as a spray painter. Her younger son is studying. The family manages to survive as a part of an extended family.

In the year 2011 when the Paribartan project was launched Geeta was one of the pioneering community members who helped in the formation of the Gram Paribartan Committee

(GPC). She is now one of its members. “Initially we discussed a lot about climate change, its cause and the impacts felt in our region. Once the impacts, particularly on lives and livelihoods, were identified we decided to find solutions. Among other solutions, the idea of nutrition gardens using organic inputs appealed to us women. Later when we pointed out that the farm instruments used by us were actually meant for the men folk and were inconvenient for us, the project supported some of us with women friendly equipment.”

“Between my husband’s agricultural plot and our house there is a small patch of land that is full of weeds. Earlier I used to clear little portions and plant a few vegetables. When I used to purchase seeds the seller used to tell me that I would have to purchase chemical manure and insect killers as without them the plants would not grow. I was forced to purchase them though I was troubled by the expenses. Sometimes I thought that it would be better if I purchased vegetables from the market instead of spending money on growing them and also contributing my time and labour.”

“When we were trained by Sabarmatee Madam of Sambhav she explained to us the politics behind pushing chemical manure and insect killers. She said exactly what was in my mind. These inputs are costly and are harmful for the soil, the plants themselves and for our health. They drive up the costs of agriculture and result in profits for the sellers. She also told us how they contributed to climate change by releasing gases into the atmosphere. When I felt our minds match I listened to her intently and also learnt the techniques of vegetable cultivation and preparation of organic manure and insect repellents.”



“Soon I was busy in my garden, much to the delight of my husband who closely watched my moves. I prepared beds for the vegetables by clearing the space available to me. I also set about preparing the organic manure. I did not have to prepare the insect repellent separately as the roughage from what I produce becomes the manure and the floating liquid becomes the organic insect repellent.”

Geeta remembers receiving the following seeds and saplings in 2012 to encourage her to set up her garden.

Vegetables	Brinjal	Trees	Banana
Ladies finger	Tomato	Mango	Neem
Pumpkin	Beet	Coconut	Karanja
Chilli	Lemon	Sapeta	Guava

“I have benefitted through the gardening kit as they are tailor made for my homestead garden. These equipments are light and ready to use. The can and sprayer makes it easy for me to water my plants and use the insect repellent”.

“I am now well conversed in the preparation of organic manure (handi khata) and the insect repellent that is prepared along with it.”

The procedure she narrates is as follows;

Ingredients	Quantity	Method of Preparation
Cow Dung	1 kg	First I collect the material. I cut the leaves into very small pieces. I mix all the ingredients in a mud pot. I cover the mouth of the pot containing the mixed ingredients with a cloth cover away from sunlight for one week and the manure is ready. The roughage is the manure and the liquid floating on top becomes the insect repellent.
Cow Urine	5 litres	
Karanja leaves	1 kg	
Arka leaves	1 kg	
Neem leaves	1kg	
Jaggery	50-100 gms	

She said she was also influenced by the organic manure poster distributed by members of the Paribartan team and her husband uses it to prepare organic manure for his field.



ଜୀବାମୃତ

ଏହା ଏକ ଲୈଠିକ ସାର, ଯାହା ପ୍ରସ୍ତୁତରେ ବ୍ୟବହାର କରାଯାଇ ପାରିବ

ଆବଶ୍ୟକ ସାମଗ୍ରୀ:	
୧. ଲାଜ ବା ବରଦ ଗୋବର - ୧୦ କି.ଗ୍ରା.	
୨. ଗୋମୂତ୍ର - ୫/୬ ଲିଟର	
୩. କେଶା ଗୁଳ୍ମ - ୧ କି.ଗ୍ରା.	
୪. କେଶଳ ବା ଜାମ୍ବିରୁଣ - ୧ କି.ଗ୍ରା.	
୫. ଉତ୍ତମୁଆ ମାଟି - ୧ କି.ଗ୍ରା.	
(ସବୁ ଖୁସ୍କାରିବ)	

ତିଆରି ପ୍ରଣାଳୀ ଓ ବ୍ୟବହାର :

- ଗୋଟିଏ ୨୦/୨୫ ଲିଟର ପାଣି ଧରୁଥିବା ପ୍ଲାଷ୍ଟିକ୍ କ୍ଲମ୍ପରେ ଉକ୍ତ ପଦାର୍ଥକୁ ଏକତ୍ର ଭଲ ଭାବରେ ମିଶାଇ ଦିଅନ୍ତୁ, ଛାଇରେ ରଖନ୍ତୁ ।
- ଦୁଇଦିନ ପରେ ୨ଦିନ ମଧ୍ୟରେ ଏଥିରେ ୨ଗୁଣ ପାଣି ମିଶାଇ ଜଳସେଚନ ଉପଯୋଗରେ ବା ଜମିରେ ପାଣିଥିଲେ ଗୋଟିଏ ସାତାରେ ଦ୍ୱାରି ଦିଅନ୍ତୁ ।
- ଉପରୋକ୍ତ ଦୁବଣ ଏବଂ ଏବର ଜମିରେ ଥରବ ଥର ଯୋଗାଯୋଗ କରନ୍ତୁ ।
- ପୁଣି ୨୦/୨୫ ଦିନ ଅନ୍ତରେ ୨/୩ ଥର ପତାଳରେ ମାଟି ଗୁଳ୍ମ ରହିବ ଓ ଅମଳ ବଢ଼ିବ ।
- ପ୍ରଥମେ ଜମିରେ ଖତ ଓ ଛିଆଖତ ଦେବା ପରେ ଜୀବାମୃତ ବ୍ୟବହାର କଲେ ଅମଳ ବଢ଼ିବ ।

ଦିବ୍ଦନ ବିଶ୍ୱାସନ

ଗୋବର, ଗୋ ମୂତ୍ର, ଉତ୍ତମୁଆ ମାଟି, ପାଣିର ଏକତ୍ର ମିଶ୍ରଣରେ ଉପଯୋଗରେ ମିଶାଇ ଦିଅନ୍ତୁ ଓ ଛାଇରେ ପତାଳରେ ରଖାଯାଉଥିବ ବା ଛୋଟ ବା ଗୋବର ମଧ୍ୟ ଭଲ ଫଳ ଦେବ ।



“The use of organic manure and insect repellents has shown wonderful results. The plants are visibly green and strong. The produce has more than doubled. Earlier from 50 ladies finger plants I used to get a yield of 2 kg. Now the yield is more than 5 kg. The pests are staying away. The vegetables are tastier. I am also happy that I am getting vegetables that are safe and not polluted by pesticides.”

“I get all my vegetable needs from my garden. The surplus I sell in the local market. I am very popular in the market as the “organic woman”! People know that I produce the vegetables in my own garden using organic inputs and they flock to me whenever I go to the market to sell them. This demand is now forcing me to produce more for the market. It is not just a question of money, though it is important for me, but the satisfaction of sharing safe and nutritious food grown by my own efforts.”

“I plan to expand my garden and adopt all the techniques that I have learnt. I really enjoy working in the garden and in return it is helping me maintain my family. I thank the Paribartan team for guiding me and helping me increase both the quality and quantity of my produce”.

The garden has kept me alive!



Ms Nirmala Swain, aged 62, of Subarnapur village in the Kushupur Panchayat of Balikuda block has seen many ups and downs in her life. Her husband Prabhakar Swain breathed his last in the year 2007 after a prolonged spell of illness that started with diabetes, progressed to paralysis and ultimately ended up as cancer. He was a driver earning around Rs. 3000 per month. Nirmala tried her best to save her husband by selling two acres of land to arrange for his treatment but to no avail.

When her husband died Nirmala found herself alone in the world with two unmarried daughters one of whom is physically disabled. Her son is now married and lives with her, somehow managing to support his family as an agriculture worker. She had six daughters, four of whom were married during her husband’s presence. During one of her daughters marriage Nirmala herself suffered a setback. She and her husband had gone to a town to meet the perspective groom. While crossing the road a vehicle hit her and she broke her leg. She remains lame to

the day. With tears in her eye Nirmala expressed her concern about her daughter’s marriage and the fate of her physically disabled daughter.

In the year 2011 Nirmala joined the Gram Paribartan Committee (GPC) as a member. As her family was identified as a needy and vulnerable family the GPC decided in 2012 to support her and assist her in setting up a kitchen garden. Accordingly she was trained in kitchen garden techniques and in preparation of organic manure and insect repellent in a training session held at the local village school. She remembers how “Gachha Baba”, an engineer who has instead taken up the mission to promote organic orchards, visited her village in early 2013 to train the villagers in the preparation of “handi khata” and organic fertilizer preparation.

The Paribartan project supported her with seeds and saplings when she began in November 2012. She recalls the following start up support through the GPC with involvement of PRI members.

Vegetables	Brinjal	Trees
Ladies finger	Tomato	Mango
Pumpkin	Beet	Coconut
Chilli	Lemon	Sapeta
Gaya alu	Sankha Saru	Karanja
Cucumber	Gourd	Guava
Bitter gourd		Banana



Nirmala has not looked back since then. She has been busy in her nutrition garden tending to the plants, vegetables and trees and preparing organic manures and insect repellents to promote their growth and protect them from pests.

“We meet the full needs of our family from my garden,” she says. “However the produce is more than I can consume and I sell the surplus in the local market. In each season I get around Rs. 550 to

600 from what I sell. The people are interested to buy from me as they know I will never cheat them and that my vegetables are home grown and thus safe to consume.”

This is a possible breakup of her average income from her produce every 3 months;

SI	Vegetable	Income (Rs)
01	Brinjal	200.00
02	Chhachindra	100.00
03	Pumpkin	150.00
04	Chilli	100.00
	Total	550.00

“I have a small pond in my backyard. That pond is shared with my husband’s brother who owns a portion. I have often thought about releasing fingerlings into it but I am not confident of managing it all due to my frail health. But I have to do something. I have no property and I am still to repay the loans I had to incur for my late husband’s treatment. My only solace is that my son and daughters take good care of me. That love and my involvement in the garden is what keeps me alive.”



I am a “climate warrior”!



Ms Mamata Sahoo appears to be shy and introvert. But her achievements belie her looks. She is aged around 50 years and resides within her extended family at Subarnapur village in Balikuda block of Jagatsinghpur district in Odisha. Her husband Rupendra Sahu works as a Clerk in a Government undertaking at Pipili in the Puri district of the state. She has two sons, aged 23 and 22, the elder of whom has migrated to Bihar to work as a contract worker in a private company. The younger son is continuing his studies. Her daughter, aged 19, could not clear her intermediate examination and stays at home helping her with cooking and other chores.

Observing her interest and her capacity to learn, the Gram Paribartan Committee in her village decided to nominate her for an exposure visit to the organization Sambhav in Nayagarh, Odisha. "I owe a lot to Sabarmatee and her team at Sambhav," says Mamata. "Do you know why the organization is called so? When they started their activities in a totally barren patch of land the locals laughed and then said it was impossible to grow anything in that



stony land. The team worked here and turned the land into an orchard. Underground water rose to the surface and very soon frogs and other aquatic life became abundant. Today deer and other wild life roam freely in the forest. The team developed various techniques of cultivation and build an orchard that grows a wide variety of vegetables, medicinal plants, flowers and fruits. Today the staff are community resource persons and are the envy of experts. The organisation turned asambhav (impossible) to sambhav (possible) and so it derives its name. I will try my best to inculcate the same spirit into my community. I too hate the word "asambhav". As long there is the will nothing is impossible."

"I learnt the different types of bed preparation to suit the various types of vegetables. I learnt various compost techniques and different methods of preparing organic fertilizers



and pest repellents. I learnt so much about the medicinal properties of plants, weeds and vegetables that I was amazed. We have a vast storehouse of medicines all around us but everyone is ignorant about it. I came back and started my campaign. I started sharing my knowledge and the community appreciated everything I did. They flocked around me to learn."

"Look at these leaves," she said displaying a few elongated leaves. "They are from a naturally growing plant that is abundant in this region. It is known as Koukouka and the locals ignore it as a worthless weed. However it has medicinal value and its leaves can cure diabetes. You just have to eat one leaf raw in the morning for a month and see the results. I will give you a sapling to plant at your house. It is also your duty to spread the message and



benefit others. If we do not help each other will angels come from heaven and do the job? We are the angels. “

“A lot of people come to me to know more about medicinal properties of plants. I derive intense pleasure from all that I do. At Sambhav I was also taught the value of leaves of common plants and weeds that can be used as manure. I have devoted my life and energy to this pursuit of sharing knowledge. I also apply my knowledge in my own nutrition garden.”

“I am an active member of the GPC and am the leader during the Community Risk and Vulnerability Assessment (CRVA) exercises and preparation of the village Community Contingency Plan (CCP). I attend all GPC and Paribartan meetings held in my village and its vicinity. I am fascinated by the climate change debate and the relationship of climate change with nature and our environment.”

“Thanks to the Paribartan team and their initiatives we now understand the value of plants and trees all around us and also about nature, environment and our role in mitigating and adapting to climate change. From being a simple housewife today I am known as a “climate warrior” for my enthusiasm to share and spread my knowledge. I am an environment lover and will remain so till the end.”

Replications

The community members of the area attend the Gram Paribartan Committee (GPC) meetings and learn about the necessity of adapting to climate change induced food and nutrition insecurity by setting up organic input oriented nutrition gardens. They have also observed the project participants who have benefitted from the initiative. Consequently many of them have taken up the adaptation measure on their own. Here are a few examples.



Ms Charulata Dalai of village Talagaon Beherapada in Baramundali GP proudly displays the multilayered nutrition garden she nurtures to feed her family.



Ms Shakki Singh of village Subarnapur in Kushupur GP with a full grown pumpkin she has grown in her nutrition garden



Mr Shyamasundar Palawar, GPC President of village Talagaon in Baramundali GP stands before the brinjal bed in his nutrition garden.