

STORIES OF CHANGE

**Facilitating Agricultural Regeneration Measures
(FARM NE-III)**



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Content

	Page no
■ Message from the Archbishop, Guwahati Diocese	4
■ Message from the Executive Director, Caritas India	5
■ Message from the Assistant Executive Director, Caritas India	6
■ Message from the Director, GGSS	7
■ Introduction	8
■ Scientific intervention gives impetus to smallholders' income generation	9
■ Farmers helping farmers	10
■ Smallholders small initiative bears fruits	11
■ FARM program empowers impoverished families to create sustainable change	12
■ Affordable cold storage for smallholders - An innovative approach	13
■ Entrepreneur started farmers fair on highway	14
■ Farmers could solve the food wastage issue	16
■ A quest of new income	16
■ Air layering propagation helps in multiplying the plants	18

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Archbishop of Guwahati



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Message from the Archbishop, Guwahati Diocese



Most Rev. John Moolachira
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Many development initiatives made in the name of modernization frequently result in the change of indigenous knowledge systems and its gradual disappearance. As a result, communities as whole are moving away from their traditional habits and adopting new modernized habits. The preservation of the rich traditional knowledge is therefore very imperative.

It gives me great pleasure to appreciate the hard work of GGSS and the booklet it produced under the third phase of FARM Northeast programme. The stories in this booklet describe how the farmers in Morigaon district of Assam realized the prevalence of surplus of food and the need to preserve and multiply the methodology. They also expressed how they have acquired new means of livelihood while comprehending the changes brought about by the project interventions. It is enriching and encouraging to see how the farmers worked hard to make sustainable and lasting changes in their lives.

Guwahati Gana Seva Society, through the FARM Northeast programme had the great honour of working closely with local farmers of Morigaon district. It is noteworthy and greatly to be appreciated that CARITAS INDIA and MESEREOR had been constantly supporting GGSS with the financial resources to empower the village farmers. I sincerely appreciate and value the staff's dedication to excellence as well as the community's constant collaborations during the project interventions.

With Best Wishes,

Archbishop John Moolachira
President
Guwahati Gana Seva Society
Peace Centre, G. N. B. Road
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Message from the Executive Director, Caritas India



The Northeast (NE) region is known for its diverse ethnic community, multifaceted rich cultural heritage and agroecological biodiversity. People in the region are actively engaged in agriculture to sustain their food security. It is heartening to see that the Guwagati Gana Seva Society has taken the initiative to bring out a publication on the best practices adopted by the farming community in the state under the FARM Northeast III.

It is an effort to highlight the favourable developments brought through the FARM programme's facilitation. Caritas India is committed to supporting its partners in a mission to serve the poor up to the last mile and FARM is, yet another milestone in Caritas India's journey towards uplifting the poor and marginal populace of NE India. The information in this booklet serves as a tangible illustration of how a people-driven programme can improve the lives of those who are truly in need.

I am happy to share this booklet and hope that it will serve the practitioners and learners in Social Sector.

I would like to take this opportunity to thank everyone who helped bring out this booklet and commend GGSS, for putting this knowledge product forward.

I send GGSS my best wishes for their endeavours.

Fr. (Dr.) Paul Moonjely
Executive Director,
Caritas India

Message from the Asstt. Executive Director, Caritas India



This success story booklet is a result of the agricultural intervention made in the isolated Assam villages. The impetus is given to adequate food production from available existing resources, agriculture with indigenous seeds, and rural markets while working with ethnically diverse communities.

Caritas India collaborates closely with its partner throughout the nation to assist and support society's most vulnerable groups. This publication on success stories from the Guwahati Gana Seva Society is amazing. The farmer-friendly content has been written in simple language, using more pictures with practical examples for the benefit of farmers.

The success stories explain the context-specific activities that contribute towards food and nutritional security through initiatives of agricultural productivity and incomes, climate change adaptation, innovative agriculture practices, and biodiversity conservation measures. These success stories show the changes that have occurred in the lives of people from 13 villages in Morigaon district of Assam

The collective action speaks volumes, and this booklet exemplifies the testimony of how such actions that have empowered the communities to achieve their goal.

Fr. (Dr.) Jolly Puthenpura
Assistant Executive Director ,
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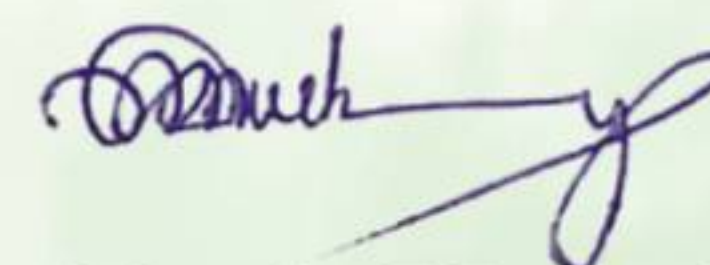
Message from the Director, GGSS



Guwahati Gana Seva Society (GGSS) under FARM Northeast Phase III has come up with another booklet. The booklet is on transformational stories of village farmers. It describes the alterations and effects brought about by the programme's intervention in the lives of the peoples. It has been able to capture the knowledge, initiatives, and experience of the smallholder families in coping with challenging circumstances of food and nutritional security. It also brings out how farmers have come up with a possible way out and helped them to pave the way for new avenues of securing livelihoods.

This booklet is dedicated to the village community's rich heritage of traditional wisdoms in agriculture and environmental protection. The success stories are indicative of changes brought about in the lives of the people from 13 villages of Morigaon district in Assam. Most significantly, it will demonstrate the process taken forward to achieve such results.

I sincerely thank GGSS FARM staff for their valuable service and tremendous efforts to collaborate with the village communities in this endeavour. I believe that this booklet will be a beneficial to the readers and other stakeholders.



Fr. Maya Martin Muchahary
Director,
Guwahati GanaSeva Society

Introduction

Since November 2019, Guwahati Gana Seva Society (GGSS) has been implementing the FARM Northeast III programme with 936 farming families in 13 villages of the Guva, Nelli, and Silchang Gaon Panchayats in the Mayong Block of Morigaon district of Assam to assist them in having enough food production and nutritional intake in accordance with their cultural food habits, using indigenous seeds for cultivation, and having control over the rural markets for selling their products.

Several innovations were implemented during the interventions, such as encouraging farmers to cultivate fallow land, promoting wild edibles through biodiversity walks with the help of village elders for knowledge transfer on forest resources, organizing indigenous seed exchange among farmers, and encouraging farmers to continue the process of helping one another by returning supplies they had received.

Sustainability, visibility, community participation, and community contribution were all considered as processes during the FARM program's implementation. The People-Led Development Approach principles served as the program's foundation.

This booklet is being published with the intention of disseminating such information for future use as a knowledge product. It includes interesting smallholder success stories, each illustrating how the FARM program's intervention impacted people's lives.

Working with smallholders and becoming familiar with the challenges they face on a daily basis has provided new perspectives for understanding the situation within the context of village culture. As new factors enter the picture, the situation is constantly shifting. On a daily basis, the GGSS team planned to deal with a variety of situations that occasionally go wrong and occasionally turn out extremely well. The team members have been grateful for the opportunity to work in such demanding conditions and have shown great patience by using their presence of mind to deal with difficult situations.

We anticipate that the FARM N.E. initiative will assist the smallholders in income-generating activities. The assistance from Caritas India is acknowledged in our mission to help the underprivileged smallholders to increase their revenue and secure food. We sincerely hope that the collaboration with Caritas India and Misereor, Germany will be a source of great delight for the less fortunate residents of the project area and that the partnership will last for a brighter future.

Scientific intervention gives impetus to smallholders' income generation

In Assam, including the Morigaon district, subsistence agriculture has included summer paddy, also known as *Shali*. The term "*Boro*" refers to winter paddy, which is typically grown in low-lying areas. However, absence of low-lying land prevents the smallholders in the FARM villages under Guwahati Gana Seva Society (GGSS), a Caritas India partner, from growing *Boro* paddy. The FARM programme is being implemented by GGSS in 14 villages in the Morigaon district.



Smallholders in 14 programme villages have been growing *Shali* paddy for generations for food security. The yield from their fields was sufficient to feed the family with no surplus to earn a living.

Farming is no longer profitable for a smallholder farmer like me. We do it for our own consumption because, like our forefathers, we prefer to eat what we grow rather than what we buy at the market, said Gojen Pator of Gurigaon village in Assam's Morigaon district.

In general, a farmer invests around Rs. 6,000+ per 0.33 acre in *Shali* paddy as an input cost. Another 5,000 is deducted for the labour involved in sowing and harvesting. This increases the burden on smallholders, who frequently cannot afford such a large sum and fall victim to debt.

A conventional cultivation would yield a maximum of 400 - 450 kgs of paddy from the *Shali* fields. In case that becomes a surplus for a family, they are compelled to sell that for a mere Rs 12.50 per kg. Selling their paddy to the Food Corporation of India (FCI) may make a small profit, however, FCI's requirements are often higher than what the stallholders have to offer.

It was important for GGSS to address the challenge that smallholders are faced with. The System of Rice Intensification (SRI) is a farming methodology aimed at increasing the yield of rice produced in farming. It is a low-water, labor-intensive method that uses younger seedlings singly spaced and typically hand weeded with special tools. GGSS team was in the know of how SRI works in Kuthuri, and Garangkuchi to begin with, said Bitupan Baishya, Field Animator, GGSS. SRI was discussed with the small holders of and offered as an option to adopt. Farmers were urged to choose

group cultivation as it reduces labour expenses and overall investments by 50%, thus making SRI production even more profitable. It was time for the smallholders to give a facelift to the *Shali* cultivation after the smallholders readily agreed to adopt SRI.

Ranjit, a popular variety of paddy was grown by most of the smallholders in *Shali* cultivation. GGSS suggested them something beyond. It was suggested that given the market demands, the smallholders could look for the possibilities for cultivating indigenous aromatic paddy like KetekiJoha, Buka used for making pancakes, and Black Rice. They opted for the aromatic and other varieties of



paddy, however, we never discouraged them from cultivating Ranjit paddy, said Prabin Minz, Coordinator.



A little more than 52 acres of land was bought under SRI cultivation in the 5 above mentioned villages involving 176 smallholders divided into 7 groups in July 2022. All the 4 varieties of paddy were sown in 13 acres each of land available with the groups. It is expected that a minimum yield of 640 kg per acres will be what the farmers will receive after harvest. Keteki Joha and Black Rice being on high demand in the market, sells for at least Rs 120 per kg, whereas Buka and Ranjit would sell for Rs 60 and Rs 12.50 per Kg respectively. GGSS is not arriving to any conclusion but is hopeful that the smallholders are for sure going to make the difference. Interventions like SRI are not new, it is however, important to see how such promising technologies reach to the man standing at the last mile. important that Caritas India salutes the spirit of collectivization.

Farmers helping farmers

India has seen over 100,000 different varieties of seed before the green revolution but with the influx of international seed corporations, the control of farmers over seed was shifted to the market and this diversity was replaced by monoculture.

It was observed that the farming families in Assam who were preserving and using indigenous seeds for growing paddy but for vegetables, except for few families, they were very much dependent on seeds available in the markets. Now the focus area of intervention was to sensitize the community on the importance of promotion and preservation of an indigenous variety of seeds not only for paddy but for seasonal vegetables as well. The community understood the situation they were in and were ready to take necessary action to address the problem.



The intervention of Caritas India FARM N.E. Phase III programme in 13 villages under Guva, Nellie and Silchang Gaon Panchayat, Mayong Block, Morigaon District brought a lot of rapport building to initiate a process in an area that was completely new. Household visits and interaction with the farmers helped to understand the community and their cultural habits, especially farming practices.

But then they came across another challenge. The indigenous seeds that were preserved by the families were very limited and up to only 2-3 varieties per family. With that much quantity of seeds, it was very difficult to do seed collection and exchange seeds among the farmers. Therefore, to initiate the process hand-holding support was required.



“FARM team of Guwahati Gana Seva Society (GGSS) also started looking for an indigenous variety of seeds within and beyond project villages and it was then we came across to some of the lead farmers from FARM Phase I and Phase II villages”, said Prabin Minz, Coordinator, GGSS.

As they were approached, they agreed to help the farmers and they took the responsibility for the collection of seeds from their respective villages. Within a week’s time, they collected 12-14 varieties of indigenous seeds of seasonal vegetables. The seeds included Lady’s finger 2 kg, Cucumber 2 kg, Sponge gourd 2 kg, Coriander 5kg, Spinach 6 kg, Chilly 5 kg, Bitter Gourd 2 kg, Bean 2 kg, Pumpkin 2 kg, Brinjal 2.5 kg and Long bean 4 kg.

It was amazing to see that the farmers rejected the money offered to them for the seeds by saying that they could be able to do that little they could do because of the support provided through FARM programme that was implemented in their villages. The seeds were used by the farmers in the FARM III and now that they have increased the number of seeds through multiplication they were ready to contribute generously to help the farmers in need.

“We remember we were in similar kind of situation and were very much depended on market seeds, we started with a handful of seeds and over the years have multiplied them, now we are in a position to help other farmers, we expect the same from you so that the quantity of the indigenous seed increases and many more farmers are benefited,” said Keshab Das, a farmer from Khaloibari Phase I village Dimoria block, during his address to the community of phase III villages.

Smallholders’ small initiative bears fruits

“I grow lots of seasonal vegetables and sell them in the market along with other edibles that I collect from my gardens,” proudly shares Ranjit Bangthai, one of the farmers from Kumarkuchi village, Gova panchayat, Morigaon district in Assam, during a village level meeting. As he was sharing his agricultural activities, everyone was listening to him with much admiration. But then he said something which surprised everyone: that while returning home he buys vegetables that are available in the market that are consumed by the family.

The ignorance and innocence of this man shocked those who know the value of indigenous food in comparison to hybrid food. He was not aware that the vegetables that were grown in his garden were from indigenous seeds having very high nutritive value. He was attracted by the looks, shape, and size of the vegetables available in the market and used to buy them for his family.



This was a very common practice by almost all the farmers in his village and his neighboring villages, says Prabin Minz, Coordinator, GGSS. All the efforts of the farmers were going in vain as they themselves were not able to eat the fruits of their hard work. They were not only depriving themselves of the nutritional food intake that they were supposed to have, but it could also be seen as a threat to their good traditional way of agricultural practice that needs to be valued and preserved.

Farmers cannot be blamed for their ignorance as they are from very remote villages where they are never exposed to the outer world much and are trapped in the shiny marketing trap. They were very simple farmers who toiled day and night in their fields to support their families with basic needs.

The Caritas India FARM team from Guwahati Gana Seva Society (GGSS), along with some of the lead farmers, identified the issue and started the intervention to ensure that the farmers realise that they should be very proud of their traditional agricultural practises and the kind of produce they are growing with indigenous seeds. This intervention was also targeted to ensure that farmers ensure their own food security, loaded with nutritional value.

A series of meetings and community interactions were conducted mainly to focus on the issue. Farmers were informed that their products were very high in nutritional value and should be consumed by themselves and their families, and only the surplus products could be sold in the local markets for income. They should not get lured by the products available in the market and compromise. Instead, all the farmers should come together and ensure that their local products are sold at a good market price.

As they went through such awareness programmes, training, and capacity-building programmes, they started to realize their mistakes that they were making unknowingly. They slowly started taking initiatives to correct it. During this period, the farmers got the opportunity to visit some of the line departments, such as Krishi Vigyan Kendra, Dept. of Agriculture, Dept. of Animal Husbandry & Veterinary Science, and Dept. of Forest Nursery. The farmers had great exposure and very soon understood the importance of such initiatives.

They not only started consuming their own-grown products but made a conscious effort to increase their production through multi-cropping, optimising land utilisation, and growing wild edibles in their garden. They are now selling only their surplus products on the market at very satisfactory rates.

Farmers have come together and formed a group to link themselves with institutions such as Krishi Vigyan Kendra (KVK). 50 acres of community land have been identified and the farmers are cultivating Dhaincha, local paddy, mustard, banana, lemon, and papaya on it. They are constantly in touch with KVK. Their officials are also making frequent visits to their fields and are undergoing various training to make themselves eligible for organic certification.

The biggest impact could be seen during the time when millions of people were affected by the pandemic situation and were facing the brunt of shortages and lack of food. The farmers from Kumarkuchi, Garangkuchi, Notungaonliya, Puronigaonliya, 1 no to 4 no Kuthuri, Kalbari, Gurigaon, and Moorlia had the privilege of feeding themselves with the nutritional products that they were growing by themselves.

“We cultivate a small piece of land and manage it by growing whatever we possibly can, and to be honest, during this lockdown period we managed to survive without much difficulty because most of the things were there on our farm,” shared Rashmi Inghipi from No. 1 Kuthuri village.



FARM program empowers impoverished families to create a sustainable change

After years of living under deprivation, neglect, and a state of ignorance, many in the 4 No. Kuthuri village under Guva panchayat, Morigaon district of Assam is bustling with self-sufficiency, contentment and happiness.

Around 89 landless Adivasi families were dependent on tea gardens for their livelihood as they did not have agricultural land. Women members of the family were employed in the tea garden on Rs.6,000 per month salary which was not enough to manage the family expense. Some of the men used to look after the house and children whereas others used to go outside the village to work as daily wagers and other forms of labour work.

Determined to empower the local communities to achieve food sovereignty and increase nutritional food intake, the Caritas India FARM program has promoted farmers to build a sustainable farming system by cultivating indigenous crops.



Caritas India partner Guwahati Gana Seva Society (GGSS) observed that there was no scope for cultivation of paddy since they didn't have any land and families. Even the availability of wild edibles was a challenge to sell due to lack of time and distance. Families were relying on rice from the public distribution system as their only staple food for survival.

A kitchen garden was promoted in the household to fulfil the nutritional deficiency and families were encouraged to use the space near the house to cultivate a variety of seasonal vegetables. Unutilized community resources like cow dung were brought into use in the kitchen garden as manure.

GGSS facilitated the community to collectively address some common issues, identify the scopes and work together for the solution with the resources available, says Prabin Minz, Coordinator, FARM III. The knowledge of indigenous food systems and traditional crops was promoted through seed exchange for preserving, conserving, and propagating the crops. Families were given hand holding support with additional indigenous seeds and a demo cum training program on composting manure and bio-pest repellent with cow dung and urine.

Rupali Munda, one of the family members from the village said that "By participating in the programs of FARM and getting the opportunity to interact with other communities has enlightened them to a great extent." The families started a kitchen garden in their backyard, collect the cow dung dumped on daily basis from the commonplace as per their need and used it as manure in their vegetable garden to nurture the plants.

Over the period, other than working in tea gardens the families got engaged themselves in growing vegetables as per their needs in their garden. They are not only consuming them but also selling the surplus production and the wild edibles through a group of women farmers from another village involved in marketing. At present, around 74 families are having improved kitchen gardens with vegetables out of indigenous seeds and are using cow dung as manure.

The families are now prospering as the demand for their products has grown. They are selling vegetables, indigenous seeds, and wild edibles in the market. In the last 1 year, these families started getting a sustainable additional income of Rs 1,800 to 2,000 every month.



Entrepreneurs started farmers' fair on highway

Local farmers made fresh produces easily available to consumers at highway shops. Situated at the bustling national highway in Guwahati, Farmer's market is taking all the limelight. A glimpse of different colourful stalls will fill you with excitement.

This is no normal farmers' fair but an initiative of Guwahati Gana Seva Society (GGSS), a Caritas India partner under the FARM program to promote farmers' agro-based products among the consumers. This fair provided a platform for the local farmers to sell their fresh nutritious produce to health-conscious consumers.

Caritas India FARM program aims to support the marginalized farmers in selling their agricultural products





through a direct marketing system through collectivisation. This also helps to give control to the farmers over the local community market for the sale of excess organic produce.

“We never expected that our products will be sold so easily and at a good price, normally I used to earn Rs.350/- but today I made a profit of Rs.800.00 in the 1st half itself,” says RinkiBangthai, one of the farmers participating in farmers’ fair.

The plan for the Farmer’s fair became reality after the due permission was given by the authorities. GGSS has selected a suitable place near the national highway which was ideal for the farmers who were coming with their products. Since the fair was opened in a strategic location

the tourist and locals can access the fair easily. A new trend can be seen among the new middle class towards sustainable, organic and local food that is ready to pay a good price for such high nutritious products.

It is a move that reflects a trend in consumers toward natural foods which is toxic free. Farmers participated in this farmers fair to sell their products. The stalls and the farmers were ready with their products since 6 am with varieties of agricultural products including natural growing plants, wild edibles, seasonal fruits, and spices, aromatic paddy like joha& black rice, cloth items and handmade colourful mufflers.

The same enthusiasm can be seen among the consumers as a huge gathering and a good number of people turned out in the morning. They were very excited to see the products that are a very rare sight for them these days. They started buying the products at whatever price that was fixed by the farmers without even bargaining. The consumers were interested to know whether this farmer’s fair will be open every day, as there is a strong wish from consumers to buy directly from producers. “There is an increased demand for organic fresh food among the people and they are ready to pay any amount” says BitupanBaishya, Community Mobilizer, GGSS.

The chairman and the concerned authority were satisfied with the Farmers Fair, and they were very happy to see the farmers making a profit. They have assured support in future as well. Provisions are being made for the regular marketplace and if things go well permission will be given for the weekly Sunday market on regular basis.

Affordable cold storage for smallholders – An innovative approach

Fresh vegetables are an example of a perishable good, which spoils or dries out even within a day. Because they cannot afford a refrigerator, smallholder families in the villages are compelled to eat them.

Assam typically experiences a "Tropical Monsoon Rainforest Climate," with high humidity and significant precipitation. Assam typically experiences tropical monsoon weather and is a temperate area with uncomfortable humidity, especially during the rainy season. The Morigaon district experiences a subtropical, humid climate. The data on humidity show that the air is humid all year long. During the dry season, it has a value of 67



to 79%. Such challenging climate become a hurdle for the smallholders to store their fresh vegetables for a longer period.

Going to the daily market, which is located about 15-20 km from the village for the residents of 3 no Kuthuri in the Morigaon district of Assam, is a taxing task. The smallholders are also unable to sell or buy vegetables in bulk at a weekly market held once a week four kilometres away because they lack storage facilities. The GGSS's promotion of wild edibles also resulted in fewer storage issues for the locals.

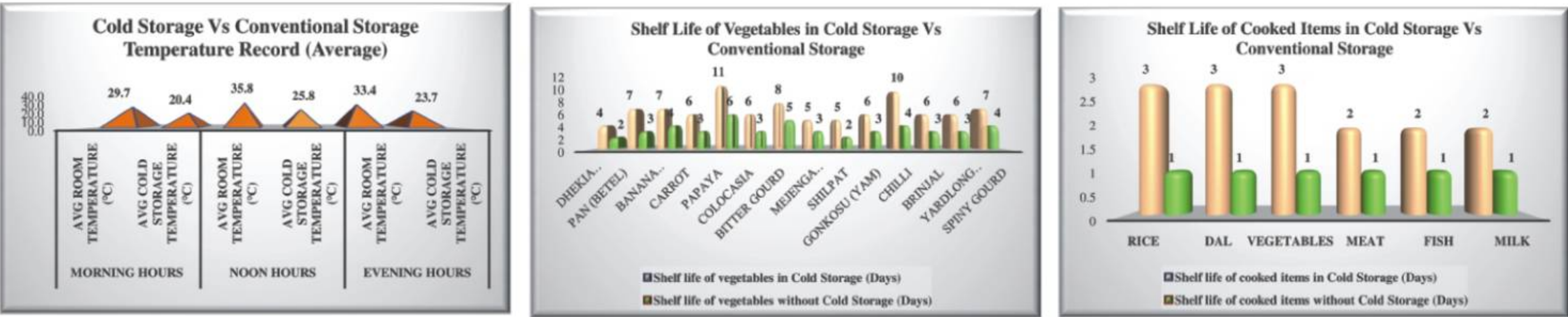
Since FARM Phases I and II, GGSS, a partner of Caritas India, has been promoting the Clay Pot Fridge in an effort to address the storage problem. The Clay Pot Fridge concept was first introduced by Caritas India's thematic desk in 2013-16, and smallholders quickly embraced it. This well-liked idea was presented to the smallholders under FARM III by GGSS. The problem of storage was only partially solved because the smallholders required more space due to their rapid growth and the clay pots could not accommodate them. Although we have been raising a variety of crops and selling them to earn money, the problem of bulk storage could not be solved with clay pots, according to Ms. Ranjana Pator from 3R Farms.

We needed to improve the storage capacity of such systems because the clay pots available on the market are not very large and can only hold a few kgs of vegetables, according to Prabin Coordinator, GGSS. Zero Energy cool chambers might be the answer, but they come at a cost of between Rs 10,000 and Rs 15,000, which smallholders cannot afford, added Prabin.

GGGS team in consultation with the thematic desk of Caritas India started exploring the idea of using rings that are utilized for construction of wells. They are widely accessible and offer a variety of cost-effective choices for creating cooling chambers that could meet the needs of the smallholders.

The experiment was conducted using a set of rings with diameters of 2.5 feet and 3.5 feet and heights of roughly 1.5 feet. Instead of using earthen pots, rings were placed in a permanent, cool, and dry location-preferably an earthen floor that had been cleaned with cow dung water-while maintaining the fundamental idea of a clay pot refrigerator. The smaller and larger rings were put on successively. The 1-foot gap between the two rings was filled with sand from riverbed. A bamboo frame was placed on top before placing the moistened cloth on top to prevent the cloth from falling. In order to improve the system, a single ring storage was also tested. The ring was placed in a 1.5-foot-deep pit dug inside the house in this case. The approximately 1-foot gap was filled with sand.

In order to further validate the systems, daily temperature records were kept. Furthermore, the shelf life of products stored in this structure versus conventional storage was compared. The entire experiment was carried out during the height of summer (June -August 2021).



Within a month, results started to appear, and it was found that the products stored in both systems kept their expected freshness. In both cases, there was an 8-10°C temperature difference. The best part was that now, as compared to just 1-2 kg earlier, 30-40 Kg of vegetables could be stored.

GGSS took forward this tested technology to smallholders, particularly farmer collectives. 26 groups in 10 villages accepted it without hesitation. This innovation could be affordable for smallholder collectives and costs about Rs 1,500. GGSS distributed this tested technology to smallholders, particularly farmer cooperatives. 26 groups in 10 villages accepted it without hesitation. This technological advancement could be affordable for smallholder collectives and costs about Rs 1,500. With the help of Caritas India, GGSS is working harder to bring the price down to less than Rs 1,500.

Farmers could solve the food wastage issue with demand and supply

Thousands of rupees worth of food used to get wasted as farmers from 4 No. Kuthuri village, Morigaon district of Assam were growing surplus of perishable items grown in their farms.

A large quantity of fresh produce grown in the village are wasted to rot, fed to livestock, or left unattended. Almost every household in the village had food crops i.e., drumstick, papaya, wild edibles, and seasonal vegetables in their kitchen garden. The families used to consume those products, but the surplus used to get wasted as there was no scope of selling it in the market because of lack of time and opportunity.



“We grow food for our household consumption, but we find it difficult to manage the surplus and we had no choice other than wasting the food,” says Ms. Bilasi Baraik, a housewife from 4 Kuthuri villages. As the earning member of the family is employed in the tea garden, they hardly have time to sell their products in the market.

Guwahati Gana Seva Society (GGSS), an NGO partner of Caritas India under the FARM Northeast III program has observed this wastage of food. Over the years, the organisation has been promoting several sustainable models of food security among the people and chemical-free farming is one of the highlights of this village. GGSS realised that despite the availability of plenty of food it was getting wasted beyond consumption due to the above reasons.

FARM Northeast program has promoted market linkages in 2 No. Kuthuri, a neighbouring village of 4 No. Kuthuri village. Within 2 years of market linkage, families of the 2 No. Kuthuri villages could earn an additional average income of Rs. 1,800 to 2,200 per family. The effects are so visible that the demand for their products increased day by day and they run out of supplies. “The community of 2 No. Kuthuri village during one of the meetings with them revealed their challenge of running short of products for the market and this is where we immediately facilitate to link them with 4 Kuthuri villages where food was otherwise wasted,” said Prabin Minz, Coordinator of GGSS.

In what could be termed as a landmark, 4 No. Kuthuri village is sharing its surplus products with 2 No. Kuthuri at market price. The surplus is being marketed at 2 No. Kuthuri village markets to cater for the increasing demand of food supply. Both the villages came together to ensure the food security of each other. The average income per family of 4 No. Kuthuri has increased from Rs. 1,800 to 2,200. “We saw a new beginning when we started Sharing our surplus food to 2 No Kuthuri farmers group. This has helped us to raise our income levels and we look forward to do more”, said Shefali Baraik from 4 no Kuthuri village. GGSS has plans to take forward this achievement by procuring products from 4 No. Kuthuri villages to their market established near the national highway.

A quest of new income opportunity

Bondita Kowar was distressed about the livelihood situation of her family due to the lockdown and pandemic situation. Her family was dependent on the 0.5 acre of family land for paddy which was not sufficient. The husband, a smallholder farmer used to do agriculture in one season and work in other's land for their survival. Worried about her children's future: “She felt like doing something.”

The following month, ten women along with Bondita from the Gurigaon village in Morigaon District, Assam gathered to form a group for income generation Activity. Guwahati GanaSeva Society (GGSS), a Caritas India partner for the FARM NE programme facilitated the team to identify a workable and feasible income generation activity. “We met Bondita and helped her to introspect with her group members to see what scopes are available for them, as a group,” said PrabinMinj, Coordinator, GGSS.

The group decided to pursue duck farming due to its better market demand. They also identified a neighbour who was willing to offer space for duck rearing by the edges of their fishpond. Setting up a duckery at the edge of the pond is beneficial as the droppings from the duckery is a good source of food for the fishes. The group has contributed bamboo, tin sheets, and labour to make the duck shed. GGSS under the Covid 19 response carried of FARM programme supported this initiative by providing 30 ducklings to the group with a condition that they would return the same number of ducks in one year time so that other families or groups can be supported. The response was carried out during July to August 2020. The group readily agreed and initiated duck rearing in August 2020.

GGSS has supported the group by providing training on duckery. The FARM Northeast program in its earlier phase has promoted lead farmers who can be torchbearers and leaders to train the community. One such Expert farmer from another village conducted training on how to take care of ducks, the kind of feed, medicine and vitamins which needs to be given to prevent them from various sicknesses and ensure healthy growth. This farmer expert is well trained in duck farming & livestock management once he was part of trainings conducted by the AH & Vety Department. FARM has been encouraging local resource persons since its inception and these local resource persons are thoroughly trained by the experts first.

Within few months, the group sold Rs. 6,600/- worth of eggs and also used some for self-consumption and also kept some for brooding in the next batch. The group unanimously decided to reinvest the whole amount in the next back so the member can start reaping better benefits in future. It is expected that by the next 5 to 6 months the group will be in a position to sell ducks at a price of minimum Rs 400 per Kg and this would take the income to their expected levels or even more.

The group members are very happy with the development as they have found a way that will help them to earn some income to support their family. This initiative looks very promising, and they are doing something that is not so complicated.

In days to come, they will hand over 30 ducks to support a new group. The group members are also taking initiative to develop their backyard kitchen garden, preserve indigenous seeds, cultivate seasonal vegetables throughout the year, and introduce nutritional fruit-bearing trees, a wild edible and medicinal plants in their improved kitchen garden. They are exploring other possibilities as well for the source of income and means of livelihood.



Bondita is leading the ground from the front and Caritas India salutes her for braving the odds. “We are very happy with the development so far, we are doing it slowly but steadily, the work has been divided among the group member, and is regularly monitored by every one of us. We are not going to stop here as we discuss among ourselves regarding the expansion of our farm in every possible way,” says beaming Bondita.

“Along with duck farming, we are learning new things and are putting those into practice, we are also exploring every possibility through in the field of the farm that could give us income,” added Bondita.

Air layering propagation helps in multiplying the plants

Small farmers lack the resources to purchase fruit tree saplings from the nurseries every time. Even if they manage, it does not guarantee the same output and production from the plants.

Air Layering Propagation (ALP) technique can help in bringing a good-sized plant in a matter of weeks instead of months or years. It is a method of propagating new trees and shrubs from stems still attached to the parent plant, but a healthy fruit tree sapling grew in a nursery using the *ALP* technique costs between Rs. 120 and Rs. 200 per sapling.

It can cost a family about Rs. 700-1,200 to plant 5-6 various varieties of these tree saplings in the garden. The majority of high-quality nurseries are found along major thoroughfares, 15-20 kilometers away from most communities. It would be more expensive, more time-consuming, and require additional travel to buy saplings from the nursery under these conditions. They decided against pursuing such a plantation endeavor since it looked like too much for them.

Although purchasing seedlings to benefit the community might have been the simplest course of action but doing so required enough funds. It would also be a huge waste of time, effort, and resources if the seedlings perish for whatever cause outside our control.

“Caritas India has always supported and encouraged tree plantations at the family and community levels under the FARM programme in the Northeast. Guwahati Gana Seva Society (GGSS), a partner of Caritas India in Assam has always supported the community with variety of tree seedlings from its end and with help from the department of Environment and Forests, says Prabin Minz, Coordinator, FARM. Every time such plantations are backed by the community by offering a piece of land for the purpose.

While searching for a more effective approach, GGSS came across and met a few lead farmers promoted under the FARM earlier Phase I and II villages were trained in growing tree saplings using the *Air Layering Propagation* (ALP) method. With the use of this technique, they have produced thousands of saplings throughout the years and reaped the rewards. They even started a neighborhood nursery and made good money.

With the aid of Keshab Das and Lalu Tarang, two knowledgeable farmers from Phase I & II villages, as resource people, a teaching programme through particle demonstrations was carried out in Garangkuchi village, located in the Morigaon district’s Mayong Block. The FARM also took this opportunity and through consistent practice, they are confidently leading such demonstrations in other FARM villages.

They claim that producing high-quality saplings of any type quickly and with little effort is a fairly simple process like ALP. Anyone in the communities can grow a sapling with some early coaching on APL. They may recognize and choose a high-quality tree breed of their choice that produces a lot of nutritious fruits.

A simple technique like ALP involves the following steps

- Choose a 1-2 years old healthy branch on a live tree that is preferably straight
- Trim the side shoots and leaves from the selected branch
- Remove the bark in the middle portion of the branch gently with a knife
- Apply a few drops of organic growth hormone or cow dung liquid on the peeled portion
- Make a paste of soil mixed with cow dung and apply thickly on the peeled part
- Cover the area tightly with a piece of transparent plastic



- Leave the branch at undisturbed for at least 15-20 days
- Roots will appear in the air layered part
- Cut the branch after 15-20 days and place it on a poly-bag filled with soil mixed with cow dung
- Once the vegetative parts are visible after around 15 days, the air layered branch is ready to be planted



The method sounded highly practical and useful to the farmers who were given a demonstration. This touched them close as they could smell the possibility of a good income.

Today, all the 32 households in Garangkuchi village have people who are proficient in ALP technique for growing saplings. As the monsoon season began in April 2022, the farmers have grown more than 1,000 high-quality fruit tree saplings of mango, guava, litchi, plum, java plum, lemon, jackfruit, peach, apple, berry, and pomegranate etc.

Few farmers have even gone to the extent of establishing small scale nurseries. Rajat Bangthai, a young and talented farmer from the hamlet of Garangkuchi, sold 300 fruit tree

saplings of the mango, litchi, guava, and lemon at an average price of Rs. 80 by accepting orders from the consumers, and he made a profit of Rs. 24,000.

“We shall carry on with the procedure and make an effort to grow as many seedlings as we can. It not only resolves the issue of the lack of good quality fruit tree saplings to plant in our community, but it also provides an opportunity for income generating.” said Rajat Bangthai, a farmer from Garangkuchi

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STORIES OF CHANGE

Facilitating Agricultural Regeneration Measures
(FARM NE-III)



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