

# Women become financially independent thanks to pine needles

An initiative to clear forests of dry pine needles that catch fire very quickly and also to help women create handicraft that would bring them an income of their own has proved successful. The Swan Mahunag Self-Help Group has been able to sell its products, ranging from flower vases, table sheets, plates and dishes to baskets and bags of various shapes and sizes, made with pine needles. And after being trained, the women are making an even wider range of innovative products

**SARITA BRARA**, Shimla

**T**warkodevi is a post-graduate in Hindi but her earnings come not from academics but from handicraft items she weaves with dry pine needles available around her. About two years ago, along with 30 other women, she took part in a workshop and a week-long training in the craft in Karsog, Mandi District, Himachal Pradesh.

Within a year, Twarkodevi, from Swan Mahunag Village, had earned over Rs 50000 from selling a variety of items she made from this forest residue. Pine needles are found in abundance in the *cheedh* and *deodar*-rich forests of the state and to put them to use, the forest department organised a training programme for women in villages that come under the forest area.

The initiative was undertaken with two objectives in mind — that of clearing the forests of dry pine needles that catch fire very quickly and prove a fire hazard, and to help women create handicraft that would bring them an income of their own, explains Karsog District Forest Officer Raj Kumar Sharma.

The Swan Mahunag Self-Help Group (SHG) has since put up stalls at the famous Mahunag fair, the Saras fair in Dharamshala and the Udaan mela (fair) in Shimla and has been able to sell its products, ranging from flower vases, table sheets, plates and dishes to baskets and bags of various shapes and sizes, made with pine needles.

“We realised after participating in these fairs that buyers were more interested in products made from pine needles than other items that we used to make from waste materials,” says Twarkodevi, who has been teaching the art to other women. “We are able to save more because hardly any investment is required in this venture.”

Umavati, from the same SHG, says that while they used to make a few traditional items from pine needles, the training helped them diversify the range of products and make them more attractive by using colourful threads to weave different designs on the products. The forest department, in fact, has taken its initiative forward after the successful experiment with the Swan Mahunag SHG.

A 17-day training programme was then organised for women at Patherbi Village in the Richie Gram Panchayat that comes under the Seri Forest Range. Women from almost every family took part in the training and became members of the Village Forest Development Committee. Less than six months after the training, they are proficient in the art and make a wide range of innovative products.

It is a long process, right from the collection of pine needles to giving final touches to the product they have created, explains Kanta of Patherbi Village. Only dried-up pine needles are used which fall from the tree after

ripening. Giving details of the process, she says the pine needles are collected during May and June before the onset of rains. These are then washed and kept in shampooed water for the night and boiled in the morning by adding salt and glycerine to give them a shine. They are dried before using them to make a handcrafted item.

Isha Sharma, who is pursuing a post-graduate degree in political science privately, shows off her pencil box crafted with pine needles. “Why not learn an art which can later become a source of income for me,” she poses.

Though the occupation does not involve much of an investment as the women collect the pine needles from the forest, it needs time, concentration and patience to create products. Sparing time from their busy daily schedule that involves working in fields, taking care of cattle, carrying fodder from the forests apart from household chores is not easy, say these hardworking hill women.

Savitridevi says it takes three-four days to prepare one bag because they work on these products only in their free time. Even as they perfect their art, they feel once their products start selling in bulk, they can spend more time on them. For now, they are meeting individual demands. Most women in Patherbi feel if the art helps them to earn money the family



Attractive products on display, and right, Twarkodevi, Swan Mahunag Village, earns from selling pine needles.

Photos: SB

members would not mind supporting them in their venture. “We will give more time once we know that these can fetch good prices.”

What these women need today is greater exposure and an initial hand-holding for marketing their products. Nanak Chand, president of the Village Forest Development Committee, says they are indeed planning an exposure visit soon. Meanwhile, the women seem keen to earn additional income so that they don't have to depend on their family or husband for money.

Twarkodevi, who has been successful in her venture, says that initially the men folk opposed them. Now with money flowing into the family income, they offer to lend help.

Although villagers with forest rights get timber, fodder and make money from collecting *guchhis* (*Morchella esculenta*)

and other herbs from the forests, Sharma feels that much more is needed to be done to make the people feel a sense of ‘oneness with the forest’.

With increasing incidents of forest fires and illicit felling of trees, the forest department has realised that the involvement of the community is essential to check these activities as it does not have enough staff to cover vast areas that come under its jurisdiction.

“This was one initiative we thought could give women economic empowerment on the one hand, and get their active involvement to work towards protecting and conserving forests,” says Upasana Patial, chief conservator, Mandi Forest Circle.

(Courtesy: The Hindu BusinessLine)

## Intensifying nutrition awareness in villages

Community-level nutrition awareness was stepped up across 47 villages in Odisha in observation of National Nutrition Month, celebrated in September across India. Awareness is an integral part of the Rashtriya Krishi Vikas Yojana (RKVY) supported project being implemented by the MS Swaminathan Research Foundation (MSSRF) in 47 villages of Boipariguda Block, Koraput District.



Photo: AKP

Participants take a look at the exhibits.

The project, Strengthening Livelihood and Enhancing Food and Nutrition Security of Small and Marginal Farmers of Koraput District in a Farming System Model, involves interventions on nutrient dense crop, nutrition garden, fishery and poultry along with nutrition awareness across all the interventions with 1575 households in Mathapada and Doraguda Gram Panchayats of Boipariguda Block.

Cluster-level programmes were conducted through the month in the villages while following COVID-19 protocol. In all, 13 cluster level programmes were conducted and a total of 338 women and 31 men from 29 villages participated in the programme. The participants included adolescent girls, pregnant and lactating women, community hunger fighters, ASHAs and others. Precautions against COVID-19 including intake of immunity boosting food, hand washing, balanced diet for good health and nutrition, intake of IFA tablet for lactating and pregnant women, food myths, complementary feeding, exclusive breast feeding were discussed during the programmes.

**Akshaya Kumar Panda, Tripati Khura, Jayashree B.**

(Courtesy: MSSRF)

# Scientists and farmers strengthen lab-land ties post-lockdown

Over the past few weeks, scientists and farmers have literally seen digital transformation on how to stay connected. From webinars to social media message platforms and audio conferences, multiple methodologies have been adopted with both sides reorienting, innovating but staying in touch amidst the lockdown. It has also been a crucial period – the end of one season and the preparation and start of the next. For smallholder farmers depending on regular income, even small disruptions can have long-term consequences

JAYASHREE B. AND RAJKUMAR R, Chennai

An array of hand-held plant samples, farmers, digital devices and the green coat 'plant doctors' – the village of Mookampatty was abuzz with a physical plant health camp for the first time in six months. The small group gathered in Pudukkottai District, Tamil Nadu, marked its presence, warily keeping distance, but holding up awareness banners on why scientific pest identification and redress was important.

Meanwhile, in neighbouring Thanjavur District, a group of women and men farmers gathered around an audio transmitter in Villiyanoor. As they sat in the shade of a thatched roof on the bare earth, the audio system alone was reverently placed on the only sheet that covered the floor. Taking a quick break from their work on the field, they were gearing up for an audio-bridge conference that connected them to experts, preparing for livestock care before the oncoming rainy season.

Now, the scientific support and timely advice to farmers is back in physical form. "While we have stayed in touch, there is nothing to replace physical engagement with the farming community, that has been reduced over the past few months," says R. Rengalakshmi, director, Ecotechnology

Program, MS Swaminathan Research Foundation (MSSRF). "Over the past few months, it was a record realisation of reaching over 2700 farmers through multiple means. The COVID-19 context has strengthened use of digital technologies more than ever before and this pedagogy in farmer learning is demonstrating an important strategy for future agricultural extension services and systems," she said.

Timely addressing of pest and diseases in crop as well as in livestock, makes a crucial difference in the income of smallholder farmers, who as it is, do not have huge economic cushions. This is where precise, scientific support and timely access to right information comes in useful.

"It is important that we map crop issues using modern apparatus such as a microscope, laptop with a huge database, and web-connected advisory. What cannot be ascertained with naked eye is diagnosed with a research-motivated diagnosis pattern, giving the location-specific, eco-friendly and cost-effective timely advisories to the concerned farmers," said R. M. Sivakumar, joint director of Agriculture, Pudukkottai District, launching the physical 'plant clinic' and Plant Health Campaign organised jointly by MSSRF and CABI Plantwise.

The buzz around the clinic also included many warm greetings among farmers and the development workers in the neighbourhood. Said farmer K. Govindan, "The plant doctors examined my sick paddy crop using a microscope with the same effort like a doctor who examines people. When he found it affected by mites, the plant doctor clearly described the problem and remedial measures. My villagers and I are so happy to meet agriculture scientists here after five months and get the recommendations."

During the session plant doctors provided advisories on various problems including paddy-leaf folder, mites, sheath rot, bacterial leaf blight and grain discoloration, groundnut-thikka leaf spot, stem rot, tobacco caterpillar, tapioca-mosaic virus, greengram - podborer, jasmine - red spider mite that were seen in the village.

Coordinator of the project R. Rajkumar took the opportunity to organise a small exhibition of commonly seen pest and disease attacks and presented these, complete with mask and gloves, said it had still been a challenge, with the restrictions in place to organize a physical event. "We still decided to hold this, because we have seen the definite difference in actual interaction and online engagement. I was so happy to



Photo: MSSRF

A woman farmer Vallikannu explaining how her banana has been affected to the plant doctor.

see some of our long-standing farming community friends and government department personnel back here today."

Meanwhile, women farmers who engaged more actively in the audio conference discussion, also shared their preparations and activities for the season. While they gathered together in one place, the veterinarian providing advise connected over the audio bridge. C. Maheswari, Villiyannallur, Thanjavur, whose cow was suffering from cowpox got remedial measures from a veterinarian over the audio conference. "My neighbours also got solutions for care and management of their livestock. It is

a great help to interact with an experienced veterinarian for our village farmers," she said.

While farming and related activities did not stop through lockdown, the relaxation of restrictions imposed due to coronavirus, comes as a relief in the 'new normal'. The lockdown strengthened communication networks, between scientist-farmer engagement – a crucial component of the lab-to-land and land-to-lab partnership in this digital era. Now, resuming in person, this rapport is only getting strengthened, for science and for rural society. ■

(The authors work at MSSRF.)

## Solid waste management initiatives and a cleanliness drive

Two major initiatives to clean waterways and training on solid waste management for local self-government representatives were the highlights of the Swacchata campaign on the occasion of Gandhi Jayanti this year. On October 2nd, stakeholders and Panchayat Raj Institution members from 30 villages in Kerala gathered to be a part of these efforts. A webinar on the occasion on solid waste management with officials from Haritha Kerala Mission focused on decentralised waste management. Green Worms – a successful enterprise from the state shared their model adopted by local self governments in Kerala.

The very first step in solid waste management is training and mentoring provided to the vibrant green army called Haritha Karma Sena under the Local Self Government Department (LSGD). The team, trained in sorting and collecting the waste materials, passes this to a material collection facility and material recovery facility. The last step is responsible disposal of materials. Many LSGDs are already into it and some are trying to strengthen the system. Sreerag Kuruvatt, project manager, Green Worms, and Jagajeeran, state coordinator, Haritha Kerala Mission addressed the participants.

In Kerala, Alappuzha district has a major portion of wetland (Vembanadu Kayal) in Kuttanad region. The rivers Pampa, Achankovil and Manimala flow from Sabarimala towards Vembanadu Lake. These rivers and lakes are connected through small canals. Human dwellings are residing in and around bunds of the canal. During the 2018 floods, there were excess flow of water into these canals which resulted in deposition of soil sediments and other waste. The natural flow of water in the canals got obstructed due to weed (water hyacinth) growth. The intensity of its growth blocking entry of light into water, badly affected the diversity of indigenous fish varieties and other vertebrate and invertebrate fauna. The high nutrient content of water, due to flow of sewage, agrochemicals and land washouts have resulted in water pollution, increased mosquito population and also blocked the waterway mode of transport.

The canal currently under silted condition hinders day-to-day transport activities and also poses various threats to people living in the area. Considering the need, HDFC Parivartan provided support for rejuvenation of Kayalpuram Canal which stretches to 1.75 km in Pulincunnu. Nearly 1000 people in and around the canal would benefit by water transportation. Pollution-free water body will ensure opportunities for inland fisheries. Joseph Xavier, grama panchayat president, announced the Pulincunnu Kayalpuram Canal rejuvenation initiative.

The Parivartan Clean Periyar Campaign was launched in association with the Periyar Theeramaithri Group and National Service Scheme at Puthenvelikkara Grama Panchayat of Ernakulam District.

(The initiatives in Kuttanad are being implemented by MSSRF supported by HDFC Bank's CSR Parivartan as part of the Holistic Rural Development Programme in Kerala.) ■

Prajeesh P., Jayashree B.  
(Courtesy: MSSRF)

# Village knowledge centres come to the aid of farmers

The region of Sivasagar in the state of Assam is a flood-hit area; most farmers here go for Rabi cultivation after the floods end. The area needs irrigation during the rabi season although a flood hit area, but it lacks this, making it difficult for farmers during the season. There is a population of around 1000 people and about 250 households who need the irrigation facility.

**POMPI DUTTA, MADHURYA MOHAN KHANIKAR, JAYASHREE B.**

Over the years, the Assam Government provided farmers with various subsidies. The services are accessed through various existing schemes. However, sometimes, they do not get the benefit of these schemes because of lack of awareness. In this context, the team from the MS Swaminathan Research Foundation (MSSRF) facilitated a meeting with Agriculture, Fishery, Irrigation and Veterinary Departments to bridge the gap between farmers and government departments.

The farmers during face-to-face interaction with officers during the meeting discussed different schemes. These were to be popularised with all relevant details through the village knowledge centre (VKC). One specific impact was when a farmer from Ujoni Bhorolua, Indreswar Dahotia, interacted with the Agriculture Department and through the assistance of the VKC, set up a solar pump with 85 per cent subsidy. The pump was set up under the Rural Infrastructural Development Programme.

Following Dahotia, more farmers in the area applied for

the scheme. Ajit Kalita has successfully set up the pump this year and about 10 more are in progress. The pump has been a great help in providing irrigation during the rabi season. The solar pump is very cost effective and needs very less maintenance. Moreover, one hour use of the pump is enough to supply water for one hectare area for irrigation.

Says Dahotia: "I have been cultivating rabi vegetables for a long time now, but irrigation has always been a problem. I pay a lot for pumps and it becomes very costly. After the solar pump was set up, we are getting water regularly without any problem. It is very effective and we can use the same thing for many years with low investment."

Ujjal Sharma, an agriculture extension worker in the area, says: "There are a lot of schemes that the government provides but farmers are not aware of it. We find it difficult to contact people personally because we reach out to a huge population. With the VKC we can carry out the process and farmers get benefitted. We plan to carry out such activities in future also."



Photo: MSSRF

*Although a flood-hit area, the fields here need to be irrigated during the rabi season. However, lack of irrigation makes it difficult for farmers.*

Thanks to the awareness provided by the VKC, farmers here were able to access the benefits of the government scheme, carry out their farming activities in a better and more profitable way.

The work was carried out under the RESILIENCE project funded by Ministry of Foreign Affairs, Norway/ the Norwegian Embassy, New Delhi, in partnership with Orissa University of Agriculture and Technology,

Assam Agricultural University, Indian Council of Agricultural Research - National Rice Research Institute, MSSRF and International Water Management Institute, and co-ordinated by the Norwegian Institute of Bioeconomy Research.

(Courtesy: MSSRF)

## Facing challenges caused by rice hispa

There has been an increase of rice hispa infestation after the floods in Assam, year after year. Last year there were huge crop losses in Sivasagar District due to the infestation. This year, however, after three floods in the month of July, post-flood rice hispa infestation was drastically reduced thanks to timely action by the Resilience Project staff of the MS Swaminathan Research Foundation (MSSRF) and the Assam Agricultural University.

The concept of a plant clinic was initiated by MSSRF to find the causes of diseases in fields with the help of resource persons in a short period. Even during the lockdown, plant clinics were held. They helped early detection of rice hispa; necessary pesticides were applied and other measures were taken to bring rice hispa infestation under control.

Says Hiren Dutta, a farmer from Sivasagar, "We have been facing the problem of hispa for quite some time. Few farmers got very low returns due to losses because of this. This year, however, the project staff helped us by

informing that just after the flood there will be hispa attack so we could prepare before time. They also provide necessary pesticides for us. So only after one - two days after infestation we applied the pesticides as suggested and got rid of the pests."

Adds Gargee Baruah, development associate, MSSRF, "Hispa attack is very common during post-flood situation; during Kharif 2019 also we encountered the same problem. Based on previous experience and with expert help, we disseminated information prior to the infestation. Our lead farmers informed us at the initial stages so we took immediate measures and successfully controlled infestation."

**Pompi Dutta, Jayashree B.**  
(Courtesy: MSSRF)



Photo: MSSRF

*Samples of rice hispa infestation.*

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