

APRIL 2022

VOL. 2, ISSUE 4



# NEWSLETTER

## SUSTAINABLE CATCHMENT FOREST MANAGEMENT (SCATFORM) PROJECT



### MESSAGE FROM CEO & PD

On behalf of SCATFORM, I am delighted to share the April 2022 newsletter of the project. The primary purpose of the newsletter is to inform the readers about the project and periodically share the progress and achievements of the project. This April 2022 newsletter overviews the agroforestry activities of the project.

The objective of SCATFORM is to improve the quality of forest by livelihood development of forest dependent communities. Agroforestry is recognized as the most promising way to reach the goal in SCATFORM. In SCATFORM, agroforestry is introduced for livelihood development, reduction of soil erosion and fertility management.

The information contained in this and subsequent newsletters, I believe, would contribute towards maintaining transparency that SCATFORM would like to promote in its functioning and operations.

Sd/-

Dr. Avinash M Kanfode, IFS  
Chief Executive Officer & Project Director



## Introduction

National Agroforestry Policy was launched in 2014 aiming to expand tree plantation in integrated manner with crops and livestock to improve productivity, employment, income and livelihoods of rural households, especially for small holder farmers.

Agroforestry system produces agriculture, horticulture and forest crops providing 5Fs-- Food Fodder, Fuel, Fiber and Fertilizer on the same piece of land by optimum utilization of land, light and time. It improves soil fertility by using trees particularly nitrogen fixing legume trees and is also highly suitable for raising crops on hilly areas.

Forest area of Tripura contains mid tropical hill and plain type agro-climatic zone. In Tripura more than 1,30,000 families allotted RoFR land through Forest Right Act, 2006. However, forest lands dedicated to livelihood under forest rights are not well managed. The land can be effectively utilized as cultivable land through agroforestry system in order to enhance livelihoods of the marginal farmers.

In Tripura, agroforestry played a vital role to prevent the conversion of forests to agriculture lands through the expansion of shifting cultivation during the first phase of JICA Project (TFIPAP). Agroforestry helped increase forest cover especially in hilly areas in North Tripura and Unakoti Districts. Agroforestry in TFIPAP was promoted through the delineation of RoFR lands.

### Objective:

The main objective of agroforestry plantation of SCATFORM is to provide sustainable forest cover and income generation from understorey crops in RoFR land. The opportunities of income generation from RoFR land will ensure the sustainability and maintenance

of vegetation in RoFR land.

### SCATFORM Approach on Agroforestry:

Tripura SCATFORM Project has a marathon target of developing 8880 ha agroforestry plantation as income generation activities in the ROFR land of hilly catchment areas under 7 Districts and Gumti Wildlife Sanctuary as a livelihood component.

Initially SCATFORM project with its approved Agroforestry Guidelines provided list of forestry, horticultural and agricultural species along with species-wise cost estimates and given multiple choices to the community to choose the combination of desired species following the principle of "One Range One Combination".

With that approach, since, after inception of the SCATFORM project in last 3 financial year could achieve only about 583 ha of agroforestry plantation which is far below the expected target.

### Identification of CS Plots and RoFR landholders for agroforestry development:

Agroforestry in SCATFORM is to implement in RoFR lands. The RoFR landholders (beneficiaries of agroforestry in SCATFORM) should be clearly identified for implementation of agroforestry. Agroforestry is planned for RoFR landholders in the allotted plot. Beneficiaries receive share 100 % benefit individually.

The participants in agroforestry scheme will form Farmer Interest Groups (FIG) under JFMC/EDC, which is described in the micro plan. A leader of the group is assigned as a contact person of the group. The villagers who participate in the agroforestry development will receive training, materials support in an organized way through the group.



### Work step for identification of RoFR landholders for agroforestry development:

1. Identify JFMC/EDC to implement Agroforestry;
2. Obtain Mouja map with CS Plots from Revenue dept;
3. Obtain a list of RoFR landholders registered in the CS plot with their sizes from Tribal Welfare Department;
4. Organize a meeting for micro planning, identify CS plots for agroforestry;
5. Organize PRA exercise with RoFR landholders in the CS plot to identify participants to agroforestry scheme of SCATFORM;
6. Identify the RoFR landholders as beneficiaries to work in SCATFORM;
7. Demarcate an RoFR lands of identified landholders with GPS coordinates as accurate as possible with villagers and village committee;
8. Register the demarcated RoFR lands in the CS plot to TWD with the consensus among all RoFR landholders in the same CS plot;

### Elaboration of agroforestry model:

Agroforestry model in SCATFORM is developed based on existing experiences, consultation with experts and other departments, literature reviews, and preference of villagers. In order to reach the goal, under SCATFORM there are four agroforestry models: agroforest (three tier multistrata system with intercropping), livefences, contour hedgerow, and improved fallow. One product form each beat will be selected (one forest tree, one fruit and one intercrop) based on potential cluster formation and marketability. SCATFORM encourages participants to incorporate at least one selected crop in their model. Survey of sites is conducted in order to understand the outcome, issues and potential of the models.

### Agroforest (Multistrata system with intercropping):

In the multistrata agroforestry system, forest crops,

shorter or thinner sized crops and understory short rotation crops are combined as optimum use of sunlight and production. Three tier model (forest tree with long duration (more than 4 years), fruit tree with medium rotation (1 to 4 years) and intercrop with short rotation (2-6 months) are grown at the same time on the same plot. As the forestry crop grows and closes its canopy, other intercrops lose its production and only forestry crop remains.

In TFIPAP, nine models are introduced (Table 5) and some showed promising results. Outcome of the TFIPAP needs to be reviewed for developing suitable agroforestry models for each region of the project sites.

Several factors are considered for selecting agroforestry crops: agro-ecological conditions, villagers' preference, market potential, cluster formation, etc. The crops which are preferred in agroforestry models are shown in Table I.

Table I: Potential crops for Agroforestry in Tripura.

Crop type	Plant
Tree species	Bamboo, Gamar, Yongchak (Parkia), Cinnamon, Acacia, Teak, Agar, Subabul Dalbergia, <i>Erythrina indica</i> (Indian coral tree), Grilicidia,
Fruit	Lemon, Litchi Jackfruit, Areca nut, Coconut Mango, Orange, Banana, Scented lemon, Papaya, Moringa, Mosambi, Wood apple
Intercrops	Maize, betel vine, Pineapple, Black Pepper, beans, chilly, ginger, turmeric, Sesame, Pigeon pea ( <i>Cajanus cajan</i> ), Large Cardamon, soybean, oil seeds, millet, vegetables Ghandaki (after 3 years when the shade developed)

## Project activities

Agroforestry plantation is raised in 3 phases (1st year preparation, 2nd year plantation, 3rd to 5th year follow-up). Field level technical supports need to be provided by LC/COs for the process of plantation and follow-up of fruit trees and intercropping for 3 years. Beat level TFD officers and Field Facilitators (FF) in JFMCs help them to carry out these activities.

### Preparation phase

The preparation starts with motivating JFMC/EDC members and getting them interested in agroforestry by inviting them to awareness workshops. Its selection is done on a first come first served basis. Then, the RoFR lands of interested JFMC members are demarcated physically, and formation of Farmer Interest Group (FIG) follows. After this comes the selection of a suitable agroforestry model and land preparation such as lay outting and manuring.

### Plantation phase

Species are plantation in target sites just before rainy season (around April). Intercropping is done as per

seasonal timeline against each species. Then, the first orchard management such as gap filling, plant protection, manuring, pruning and training are conducted gradually.

### Follow up

The follow up activity shall be conducted for 3 years until the first harvest of fruit trees begins or villagers learn the activity by doing.

### Scale

In SCATFORM, Agroforestry development is planned for approximately 20 ha for each JFMC/EDC (8,800 ha in total). Standard size per landholder is 0.5 ha per household and 40 households per JFMC/EDC.

Now, demarcation of RoFR Patta land is the main hurdle in the way of implementation of the scheme. However, it will be carried out soon to make the project a successful one.

SCATFORM project devised some action plans such as arrangement of district-wise Agroforestry fair, development of some lucrative demand-based models for the listed species of Agroforestry Guidelines, by back assurance with traders / enterprise's, etc.



## YOUR CONTRIBUTION TO THE NEWSLETTER

We request and encourage you to share your experiences under the Project. You can highlight activities and achievements of the Joint Forest Management Committee. We can also consider inspiring stories of individuals who are doing good work which needs to be shared with other people in the state. This will provide recognition to individuals and provide opportunities for other people to learn from the experiences. You can share your experiences with our field personnel / JFMC.

*You can also write to us at : [tripurajica@gmail.com](mailto:tripurajica@gmail.com)*

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Print & Design : Pegasus # 9954926020