Project Proposal Under TNU-Approved Minor Grant

Sustainable development of Amphan affected Indranarayanpur village in South 24 Parganas for improving the livelihood of farming communities

Project Investigator (PI): Dr. Tanuj Kumar Mandal (Asst. Prof. & HoD, Dept. of Agronomy and Agroforestry)

Co Project Investigator (Co PI): Dr. Nanda Kumar Roy (Asst. Prof., Animal Husbandry)

Investigators:

Dr. Shraddha Bhattacharjee (Asst. Prof. & HoD, Dept. of Agril. Extension)

Dr. Sarthak Bhattacharjee (Asst. Prof. & HoD, Dept. of Horticulture)

Mr. Sourav Mullick (Teaching Associate, Dept. of Soil Science and Agricultural Chemistry)

Dr. Boris Huirem (Asst. Prof., Dept. of Food Science and Technology)

Dr. Sudeshna Panja (Asst. Prof., Dept. of Genetics and Plant Breeding)

Dr. Anand Salve (Asst. Prof., Dept. of Agronomy and Agroforestry)

Project Duration: 3-years

We propose to undertake the following work in Indranarayanpur village under Digambarpur Gram Panchayat, Gurudaspur, Pathar Pratima Block, South 24 Parganas, West Bengal, 743349 based on the feedback received from the *Anchal Pradhan* Mr. Rabindranath Bera and *Krishi* O *Prani Sampad Karmadhakshya* Mr. Pran Krishna Maiti on 25/03/2023 during our visit to their office.



The village is about 60 km from our campus, located in the cyclone affected south coast of West Bengal which has a highly fragile ecology. It has a well-developed *Anchal Pradhan* Office, infrastructure like farmers training facility, compost / vermi-compost units, food processing training center, tailoring training center, etc. Soil is normal to highly saline. Cultivation includes traditional agricultural crops like rice, sunflower, sesame, green & black gram and mangrove in the SE. Keeping those points in view the aforesaid intervention oriented livelihood improvement project is to be undertaken with the following objectives

1. Sustainable management of natural resources.

2. Ecological restoration through tree plantation.

3. Livelihood development of the farming communities

The following interventions targeting improvement of livelihood and ecology are planned:

1. Baseline village survey to define current and post intervention livelihood status of farmers (Department of Ag Extension).

Define existing livelihood status – secondary data collection from Panchayat office and its validation through ground survey / primary data on 50-farmers (year – 1). Seed collection, nursery raising and raising mangrove plantation (*Heritieralittoralis, Avicennia officinalis, Sonneratia apetala*) and multipurpose trees in the selected village for ecological restoration (Department of Agronomy & Agroforestry).

Plantation of saplings of mangrove plants (500 seedlings of *Heritiera littoralis, Avicennia officinalis, Sonneratia apetala*) and multipurpose tree species (500 seedlings of *Swietenia mactophylla, Dalbergia sissoo* and *Tectona grandis*)

a) Collection of mangrove seeds during rainy season (from Bakkhali and Pathar Pratima).

b) Raising of nursery.

c) Transport & plantation of one year old seedlings at the river bund of the selected village.

2. Periodic collection of soil and plant samples, analysis, and preparation of Soil Health Card (Department of Soil Science)

a) Collection and analysis of soil, water, and plant samples from rice demonstration plot and vermicompost products.

3. Introduction of improved varieties of fruit crops (Department of Horticulture) such as.

a) Raising & maintenance of nursery of Guava, Sapota, Coconut, and Mango (1-year; 50 plants each)

b) Transportation, distribution, and plantation of one year old saplings to the farmers of selected village.

4. Training on preparing value added food products for the villagers (Department of Food Science & Technology).

a) Organizing one training for interested participants for production of bakery products.

b) Facilitate product testing and FSSAI registration (cost to be borne by the participant Panchayat)



5. Training on well-being of livestock (cow, buffalo, goat, and sheep) & poultry (broiler, layer, duck, and quail)

a) Organizing camps for health checkup, de-worming, vaccination, etc. for increasing farmer's income (Department of Animal Science).

6. Packaging, labeling, and marketing of compost /vermi-compost for higher income generation (Department of Agricultural Economics).

a) Collection of vermicompost samples and analysis (soil science department) and providing assistance in packaging, labelling and marketing.

7. Introduction of improved rice varieties in the targeted village (Department of Genetics and Plant Breeding)

a) Conducting demonstration trials on salinity (2) / submergence (3) tolerant rice cultivars in the targeted village (total 7 varieties including check).

b) Organizing famers visit to demonstration field at appropriate stage of rice growth.

c) Distribution of rice seeds of performing varieties of salt tolerant and submergence tolerant rice.

Total Fund Sanction: ₹ 1,50,000/-

