



# APART RICE WEEKLY

**March 28- April 02, 2022**

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## **APART: RICE WEEKLY** **(March 26-April 2, 2022)**

### **One-Day Workshop on Mapping Suitability Domains in Rice-based Cropping Systems for Technologies/Interventions**

On March 30, 2022, Assam Agricultural University (AAU) in collaboration with IRRI, conducted a one-day workshop on mapping suitability domains in rice-based cropping for technologies/ interventions at SIPC office, Guwahati. The main objective of the workshop was to familiarize the participants on how satellite based mapping of rice-fallow areas & soil moisture availability areas can significantly increase the agricultural output and to get useful inputs from various organizations on the sowing requirements of different rabi crops.



Through mapping of rice-fallow areas land productivity can be significantly increased by introducing short duration crops in the existing cropping systems which can further boost the rural economy. The workshop helped the participants to discuss and understand about the different challenges faced by the farmers & planning agencies and how to address them through geospatial technology. The workshop was attended by 22 participants from different departments and agencies, such as Department of Fisheries (DoF), Directorate of Rapeseed and Mustard Research (DRMR), International Potato Centre (CIP), World Fish, and WorldVeg, KVKs and HRS, apart from the resource persons from IRRI and AAU.

During the workshop Dr. Kanwar Singh, Resident Consultant (IRRI) briefed about the activities and achievements under APART and talked about the necessity of efficient targeting of rice-fallow areas for future technological interventions. Ms. Suranjana Bhaswati Borah, Senior Specialist GIS (IRRI), shared useful insights about the methods and techniques behind the preparation of the outputs. This was followed by technical presentation from Ms Payel Ghosh Dastidar, Project Scientist (GIS) regarding Geospatial approach for efficient targeting of Rice-fallow areas and optimization of cropping systems based on soil moisture mapping. During the technical discussions, participating agencies were asked about the site suitability conditions (harvesting time of Kharif crops, sowing time of the related crops during *rabi* season, rainfall, temperature, soil type requirements) and how geospatial outputs can further strengthen the planning process in *rabi* season. Potential sites for developing paddy-fish cultivation were also discussed with DoF and WorldFish teams. Towards the end, all the participating agencies provided their valuable feedback regarding the usefulness of geospatial technologies which was considered for future improvements. The workshop concluded with a vote of thanks by Dr. Kanwar Singh.

#### **Contributors :**



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## **Two-days Training on Introduction to GIS and Field Data Collection under Objective IV, IRRI -APART**

Two-days training on 'Introduction to GIS and field data collection' under objective IV, IRRI-APART was successfully organized by Assam Agricultural University (AAU) in collaboration with International Rice Research Institute (IRRI) at seminar hall, College of Veterinary Sciences, Khanapara, AAU on March 28-29, 2021 with 24 number of participants. The invited participants were Agriculture Development Officers (ADOs), Assistant Technology Managers (ATMs) and Block Technology Managers (BTMs) of various districts of lower Assam.



Geospatial technology pertains to acquire, manipulate and store data that is indicated by or related to a geographic location. The training was organized to build the capacity of district-level officials from Dept. of Agriculture, Govt. of Assam to use the Remote Sensing and Geographical Information Systems (GIS) for mapping and field data collection using GPS. In this regard, there was a technical discussion on each developed map, including their methodology, criteria used for mapping and hands on training using the freely available software. At the very outset, there was a welcome address and a brief introduction to the participants highlighting the major objectives of the two-days meeting by Ms. Suranjana B. Borah, Senior Specialist (GIS), IRRI. It was followed up by a detailed overview on various IRRI supported activities under APART, by Dr Kanwar Singh, Resident Consultant, IRRI.

Dr Atul Borgohain, Associate Director of Extension Education (Vety.), AAU enlightened the participants on the importance of training in evaluating the role of geospatial technologies in the field of Agriculture. Dr Ramani Kanta Thakuria, Alternate Nodal Officer, APART gave a brief speech on APART activities and how the project is changing the face of Assam's Agriculture. Afterwards, the methods utilized for field data collection using Global Positioning System (GPS) and other alternative sources were explained by GIS team from OPIU-AAU, APART, who acquainted the participants on the methods adopted for rice and stress-prone areas identification for whole of Assam. The participants were also trained with open source GIS software. On the second day of the training program, Ms. Suranjana Borah, Senior Specialist (GIS), IRRI gave introduction to geospatial technologies and digital image processing. AAU, GIS team made a presentation on how to download and visualize satellite data. They also presented a demo on field data collection using GPS. At the end of the training the participants were motivated to use GIS technologies, by Dr Rupam Borgohain, Nodal Officer APART and Dr Kanwar Singh, Resident Consultant, IRRI. The training concluded with a vote of thanks by Mr. Bhaskar Mahanta, Project Coordinator, OPIU, APART, AAU and certificates were distributed to the participants



*Contributor: Priyanuz Goswami, Project Scientist (GIS), APART*

## **Field testing of Rice Knowledge Bank Under APART-IRRI Objective II by KVK, Kokrajhar**

On April 1, 2022, Krishi Vigyan Kendra (KVK), Kokrajhar in collaboration with International Rice Research Institute (IRRI) organized a training programme on 'Field testing of Rice Knowledge Bank' under APART with a total of 30 participants. In this programme, 15 students, 10 Agriculture Extension Assistants (AEAs), and 5 farmers participated. The programme started with a welcome address by Ms Shilpi Devi Borah PA, APART. Dr. Manoj Kr Bhuyan, Senior Scientist and Head, KVK,

Kokrajhar briefed on Rice knowledge Bank mobile application. Akhoy Jyoti Bharadwaj, Junior Researcher, IRRI explained the importance of Rice Knowledge Bank mobile application and requested the participants to download the mobile application or directly open in google play store. After that Mr Bharadwaj explained step-by-step rice production technology, cropping system, seasons, varieties, market, extension services, etc.,with the participants and also played some videos on machineries, used in rice production. Pre- and post-training evaluation was carried out to know the difference in knowledge, before and after completion of the training programme. Feedback was collected from all the participants to know how much they got benefited from the training programme. Miss Narzina Parbin, Assistant Project Scientist, Mr. Gopal Chandra Roy, Research Technician, KVK, Kokrajhar actively participated during the entire training programme. All the participants tried to acquire knowledge from this Training. Lastly, the training concluded with a vote of thanks given by Miss Shilpi Devi Borah, Project Associate, KVK, Kokrajhar.

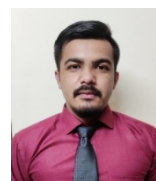
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**Maize in Rice-Fallow Areas under KVK, Morigaon**

Rice is the major crop grown in Assam over an area of 25 lakh ha with total production of 52 lakh tonnes and an average productivity of 2.2t/ha. Due to various reasons such as cultivation of long-duration paddy varieties, water logging and excessive moisture, lack of moisture at planting time of *rabi* crops, lack of irrigation facilities, non-availability of good quality seed of short duration varieties for *rabi* crops and other socio-economic problems, like stray cattle, etc., most of the areas remain fallow after harvest of *Sali* paddy.

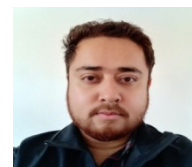


Mono-cropping system with low yield of paddy is attributing to low agricultural profitability in the region. Considering the scope of maize cultivation in the rice-fallow areas, it has been planned to implement maize cultivation under Objective IV-IRRI, Assam Agribusiness and Rural Transformation Project (APART) after *Sali* season paddy harvesting. Objective IV focuses on “Developing extrapolation domain of cropping system for efficient targeting of technologies in low productivity rice-fallows and stress prone areas”. In Morigaon district 5 ha area have been allotted under Objective IV, with 6 beneficiaries from Banmuri village under KVK, Morigaon. The maize variety, DMRH 1301 along with the fertilizers and pesticides was provided to the beneficiaries. The crop is at cob formation stage and frequent monitoring has been going on. On March 22, 2022 an exposure visit was organised to the maize plot by KVK, Morigaon, under APART. The participants from Sontali Maize FPC and students from Rural Horticultural Work Experience Programme (RHWEPE), Assam Agricultural University also attended the program.

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