



**ASSAM AGRIBUSINESS
AND RURAL
TRANSFORMATION
PROJECT (APART)**

E-newsletter

**7th Issue
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ASSAM AGRIBUSINESS AND RURAL TRANSFORMATION PROJECT (APART)

APART PROGRESS APPRECIATED BY SPECIAL TRIPARTITE PORTFOLIO REVIEW MEETING (TPRM) FOR AGRICULTURE PROJECTS

A four member team led by Shri Vinod Seshan, IAS, State Project Director (SPD), ARIAS Society participated in the Special Tripartite Portfolio Review Meeting (TPRM) for Agriculture Projects at New Delhi on 22nd August, 2019, chaired by Shri Sameer Khare, IAS, Additional Secretary, Department of Economic Affairs (DEA), Ministry of Finance, Govt. of India (GoI) in presence of Senior officials of World Bank, Controller of Aid Accounts and Audit (CAAA) and other Projects in the Agriculture portfolio of World Bank. Progress of APART was reviewed in the afternoon session. SPD Mr Seshan briefed both physical and financial progress of the Project which was highly appreciated by the Additional Secretary and other officials. Moreover, SPD among others, made following four proposals which were approved in-principle by the TPRM:

1. Setting up of 12 modern rice mills (two in each agro climatic zone of the State)
2. Statewide agri baseline survey
3. Inclusion of National Dairy Development Board (NDDB) as an implementing agency in APART
4. Inclusion of Aspirational District Hailakandi as one of the Project Districts
5. Inclusion of Pineapple as commodity value chain under APART

SPD assured the TPRM that the Project is working on a robust & infallible action plan and would be able to achieve the physical and financial targets set for the yr 2019-20.



Special TPRM for Agri Projects in Progress



AS, DEA, Min. of Fin. Appreciating the progress of APART

ENGAGEMENT OF GRANT THORNTON AS CLUSTER DEVELOPMENT TECHNICAL AGENCY FOR APART

Grant Thornton India LLP has been appointed as Cluster Development Technical Agency for the implementation of sub component B1 for support establishment of Cluster Level Industry Associations (IAs) under Assam Agribusiness and Rural Transformation Project (APART). As part of the engagement Grant Thornton India LLP, during the month of July, has focused on mobilizing the team, a systematic formulation of the tasks and deliverables were done, the Inception Report was submitted to the ARIAS Society and Commissionerate of Industries and Commerce.

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Focus Group Discussions were held at Jorhat, Nagaon, Sonitpur, Morigaon, Lakhimpur, Kamrup Metro in the month of July. Cluster Development Technical Workshops were held at Nagaon, Darrang and Sonitpur. The events were focused to sensitize the people in the Districts about the APART project and engagement of Cluster Development Technical Agency, Grant Thornton India LLP. The officials from DICC, Department of Agriculture, Department of Fishery, Directorate of Dairy, Krishi Vigyan Kendra, lead bank etc. were present in these events and shared their opinions with the participants. During these events, interactions with the entrepreneurs and various Departments led to understand the challenges and opportunities in terms of better market linkages, technical, financial support, schemes and subsidies under State and Central Government etc.

An ongoing baseline survey by the Grant Thornton India LLP in the 17 Districts has helped to reach out to unregistered units in the districts and sensitize them on the importance of registration of the firm under DICC to avail various schemes and for trainings related to their field. The teams also helped in mobilizing entrepreneurs for the buyer-seller meets held in the Districts of Sonitpur, Golaghat, Lakhimpur and Sivasagar.



Induction Training of DSSCs



Focus group discussion

INDUCTION TRAINING OF DISTRICT SOCIAL SECTOR COORDINATORS (DSSCs)

APART organized a three day Induction Training for District Social Sector Coordinators (DSSCs) of 16 Project districts from 16th - 18th July, 2019 at the Conference Hall, Office of the Chief Engineer (Agri). The main objective of the training was to orient the DSSCs on the project details and to build their capacity for management of Social Development aspects of the project. The training started with an introduction to ARIAS Society and background to the APART project. Sessions were conducted on different sectors such as Formation on Farmer Producer Organisations (FPO's) & Industries Association, Financial Services, Market Intelligence, Environment Safeguard and on target Value Chains of Silk, Milk, Fish, Pork and Agri-Horti.



REFRESHER TRAINING OF NODAL OFFICERS ON SOCIAL SAFEGUARD

Refresher training for Nodal Officers from OPIU was organized by the Project on 19th July, 2019 at the Conference Hall, Office of the Chief Engineer (Agri). The training was attended by Nodal Officers for the project, Nodal Officers for Social Safeguard cum GRO, PCU officials under APART and District Social Sector Coordinators of 16 project districts. The main objective of the training was to review achievements on Social safeguards during 2018-19 and subsequently to discuss about Social Management Plan including Communication Plan for 2019-20. A detailed report on achievements under Social Safeguards was discussed for each



Refresher training on Social Safeguards

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sector. Importance on need of Communication and its strategies were also discussed, so that success stories from the field are well documented and disseminated. Nodal Officers were suggested to involve District Social Sector Coordinators for implementation of social safeguard activities under respective departments in each Project districts.

STAKEHOLDER CONSULTATION ON GENDER

The Project had organized 4 nos. of stakeholder consultation on Gender in coordination with technical support from International Rice Research Institute (IRRI) at Morigaon, Jorhat, Kokrajhar and Kamrup district. The consultation was focused on the preparation of Gender Development Plan for Rice Value Chain. The consultations were participated by the Officials of KVKs, District Agricultural Offices of concerned districts and women members from approx. 30 nos. of SHGs.



Kamrup district



Kokrajhar district



Jorhat District



Morigaon district

FINAL REVIEW OF SKYMET WEATHER SERVICES

The final review of the 'Weather Intelligence Services' pilot by Skymet Weather Services Private Limited which was taken up on pro bono basis was held on 1st July 2019. The pilot launch of 'Weather Intelligence Services' was held on the 2nd of May 2019. The service was planned to provide Weather Intelligence services for a period of three months i.e. May- July 2019 and evaluate its utility in the state of Assam.

Skymet, conducted Weather Intelligence trainings and also installed automated weather stations in selected blocks of eight APART districts i.e : Pachim Kaliabor block (Nagaon), Bhawanipur block (Barpeta) Borsola block (Sonitpur), Lala block (Hailankandi) Rongkhong block (Karbi Anglong), Ujani Majuli Block (Majuli) and Bokakhat block (Golaghat). During the course of the project, the Skymet team interacted with the farmers to evaluate and review the impact of Weather Intelligence services. Weather updates through sms and also

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phone calls were also designed in local language for the benefit of the farmers.

A mid-project review was conducted to understand the impact and benefits of the weather intelligence services to the farmers and the feedback was taken in and accordingly the services were modified for the farmers.

During the final review, the farmers opined that they had benefited from these services as it helped them to plan their farming activities according to the details received through sms or phone call updates. They also gave their feedback for making the services more farmer-friendly and better accessibility.



Weather stations installed in the villages



Final review with the farmer on the Weather Intelligence services

CASE STUDIES ON ENVIRONMENTAL SAFEGUARD

Case Study: Pesticide handling in Darrang district

Increased awareness of environmental and human health effects from pesticide use in agriculture is very essential in reducing environmental and health hazards. There is a need to provide more awareness to the farmers by the responsible agencies or authorities through project like APART regarding the use of integrating pest management and protective gears while handling and using pesticides.

This study focused on agricultural practices of the farmers on the use of pesticide in their crop fields. Two Sali paddy demonstration plots of Darrang district, namely Bahabari (Dalgaon- Sialmari block) and Jabarikuchi (Pachim Mangaldai block) villages were selected to study the process of pesticide application methods adopted by the farmers. Due interest was also paid to create awareness among the farmers on the occupational and environmental hazard caused by pesticides. After the consultation, it was noted that the farmers did not store pesticide bottles properly and also did not follow protective measures like wearing full sleeves shirt, long pants, gloves, masks, protective eyewear, etc. while spraying chemicals in their fields. Containers of used pesticides were also noticed in the field and the farmers admitted that sometimes they use expired pesticides as they were not aware of the harmful effects of pesticide contamination. Through APART, awareness programmes were accordingly conducted for the contractors and labourers.

While visiting the same demonstration plots after some days, it was observed that farmers were following almost all the safety measures for pesticides application. They seem to be quite responsive and grateful for the awareness of the harmful effects of pesticides as well as for the safety measures suggested by the APART team.



During first visit



During second visit

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Case Study II: Environmental Health & Safety in road construction

During the initial visit conducted to the project road site in Kamrup District (namely Lafar Rongphar Phulungaon to Sonapur Burnihat Pwd Road), it was observed that the environment safeguard norms were not followed properly by the contractor. The construction workers were not provided full Personal Protective Equipment (PPEs) by the contracting agency and the labour camps did not have first aid facilities and road safety signages were missing. An improvement request was made by the concerned District Environment Coordinator (DEC) and was handed over to the construction manager for further compliance within a given deadline. During the second visit, it was observed that workers were provided PPEs, Road safety signages were provided by the contractor, and the labour camp was equipped with drinking water, first aid facilities, etc. With regular visits to the road site and coordination with the contractor, it has been made possible to understand the importance of following environmental health and safety norms in the construction site. At present, it is observed that the contractor is following environmental safety measures when operating the construction site.



First Visit

Second and Third Visit

INTER-STATE DISCUSSION ON POTATO SEED PRODUCTION

An interstate discussion was organised by Ministry of Agriculture & Farmers Welfare (MoA&FW), Govt. of India (GoI) on 4th July 2019 at Krishi Bhawan, New Delhi on issues relating to potato seed production and overall strengthening of potato seed system in India. Officials from Horticulture Depts of different states, private sector seed producers and dealers, and officials from stakeholder organizations along with the officials of Central Potato Research Institute (CPRI) attended the said meeting. From Assam, officials from Dept. of Horticulture & Food Processing (DoH&FP), Govt. of Assam (GoA) International Potato Centre (CIP) and ARIAS Society joined the meeting which was chaired by Dr T. Mohapatra, Director General, Indian Council of Agricultural Research (ICAR) & Secretary, Dept. of Agricultural Research and Education (DARE) and Shri. Ashwani Kumar, Joint Secretary, Seeds Division, Dept. of Agriculture, Cooperation and Farmers Welfare, MoA&FW, GoI.

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At the outset, Director of CPRI presented the key issues of potato seed production and informed on the current scenario of potato cultivation in India, which is more than 2 million hectares. He further informed that the seed availability to cover the whole area is not sufficient, which has to lead the farmers and Govt./private seed procurers to purchase uncertified seeds from private vendors. In general, 2.5 MT seeds are required per hectare of potato cultivation, and thus total seed requirement in India is estimated to be 50 lakh MT, from which in each year, at least 1/4th of the seeds need a replacement for avoiding seed degeneration and maintenance of quality production. If the above calculation is followed, an expected increase in the current productivity of India from approx 25 MT/ hectare to be near to the potato production leader, Netherlands with a production of 40-45 MT/ hectare, can be achieved. CPRI has been using the conventional process of seed production with a multiplication ratio of only 1: 6 which is not sufficient to fill the calculated demand for the country. Thus, for fulfilling such scale of demand aeroponics facility installation for seed production is of utmost importance that can produce 35-60 mini tubers per tissue culture plantlets, which is 7-10 times higher in productivity compared to conventional methods. Dr Mohapatra suggested establishing 26 aeroponics units supported by tissue culture labs for G0 seed production. He also suggested creating 130-hectare area net-houses for G1 seed production across the country to take a forwarding step of generating certified potato seeds by the government. He also suggested that each aeroponics facility should be equipped with one testing laboratory with trained manpower and NABL labs can be aligned for this purpose with the placement of trained technical people for the seed potato quality testing purpose solely.

The potato cultivation issues of Assam were also discussed in the meeting along with the other present states like West Bengal, Orissa and Punjab. It was suggested that until a seed system is formed in the state, government should ensure quality and timely supply of seeds to farmers with qualities like inherent resistance to late blight of potato (as it is a common occurrence in Assam) which can fit in the window between Kharif and Boro rice of about 70-90 days (November -January). In this regard, DoH&FP, GoA in consultation with CIP proposed to CPRI to facilitate seed availability of three varieties of potato, K. Surya and S. Jyoti as consumption varieties and K. Chipsona-4 as processing variety for Assam. For future seed production plans, setting up of aeroponics laboratory for starting seed production in collaboration with Assam Agricultural University, Jorhat and DoH&FP, GoA was also proposed. In response to that, Dr Mohapatra urged CIP officials to identify a suitable location for seed production with least bacterial contamination and aphid population. Finally, the discussion on the urgent need to improve the quality and production of the indigenous varieties of Assam viz. Badami Aloo, Rangpuria Aloo, Gulli Aloo was also held.

SUCCESS OF BINA DHAN 11: THE NEWLY INTRODUCED RICE VARIETY IN ASSAM

BINA Dhan 11, a short-duration variety of rice released by Bangladesh Institute of Nuclear Agriculture (BINA) was introduced in India under Regional Seed Co-operation Agreement between India, Bangladesh and Nepal. This variety had proved to be a great success in Odisha and thus introduced in Assam owing to its submergence tolerance up to two weeks, with good grain quality, inherent high productivity and a short maturity period of 120-130 days. When the variety was first time brought into Assam for sowing in the boro season of 2018-19, many had doubt on the success of variety. However, amidst of all cynicism, the variety was introduced. Around 3800 demonstrations of this variety were conducted in 16 APART districts during the Boro season of 2018-19 covering an area of around 850 hectares, through Assam Agricultural University (AAU) and Department of Agriculture (DoA), Govt. of Assam. The yields of these demonstrations were tracked through ARIAS Society with the help of DoA, AAU and IRRI in order to test the farmers' future preference and market acceptance of this variety.



Procurement by FCI, Goalpara through HRS Kahikuchi

The harvesting of BINA Dhan 11 started from June 2019 onwards and continued till July 2019. As per the information provided by district ATMA, KVKs/ HRS/ RARs, approximately 4000 MT paddy was harvested, out of which the major portion was retained for home consumption, as the farmers had a liking for the medium slender grains, having length-breadth ratio >2.5. For instance, Prafulla Das, a farmer of village Nokul II, block Rangia in district Kamrup, in whose field BINA Dhan 11 was demonstrated, showed his enthusiasm in keeping this new variety of paddy in store, solely for distributing as seed among other farm families, which would

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eventually help further dissemination and diffusion of this variety. He added that since the performance of the paddy in terms of yield and superior grain quality was commendable in Boro season, better results are expected in Sali season, and hence he wishes to use the grains as seeds for the next season. Similar trends were observed across the 16 APART districts except for few pockets in Barpeta, Majuli, Golaghat, etc. where heavy and early flash floods washed-off the mature crop just before harvesting stage during late June. The biggest achievement in the value chain of the Bina Dhan 11 was the facilitation of the farmers to sell their harvested paddy to the Paddy Procurement Centres (PPCs) set up by Government agencies, viz., Food Corporation of India (FCI) and Assam State Agricultural Marketing Board (ASAMB) at Minimum Support Price (MSP) of Rs. 17.50 per Kg when the prevailing market prices were around Rs. 12-13 per Kg. Thus ensuring an additional realization of Rs. 450 to 550 to farmers on each quintal sold at PPCs. However, this road was not smooth, partly because this was being attempted first time in APART and partly due to the fact that limited time window was available for selling through PPCs. The notification for procurement through PPCs was published on 9th July 2019 and actual procurement started on 19th July 2019. The last date for procurement was 31st August 2019. This means effectively only about 40 days were available with the team for facilitating procurement. The top challenge was to instil in people a self-belief that they could do it. Initially there was a lot of scepticism at different levels. The next big challenge was getting enrolment and 'bind' from key people in the field. In something truly radical, the greatest challenge always lies in creating the self-belief in the implementing team.

The minimum requirement for farmers' paddy to be sold at PPCs as specified by Department of Public Distribution, Ministry of Consumer Affairs, Food & Public Distribution, Government of India is (i) maximum moisture content - 17% (ii) maximum organic foreign matter content -1% (iii) maximum inorganic foreign matter content -1% (iv) maximum damaged, discolored, sprouted and weevilled grains -5% (v) maximum immature, shrunken and shriveled grains-3% (vi) maximum admixture of lower class-6%. Since the harvested produce has moisture levels 25%-26%, it needs to be dried to 17% either through sun drying or machine drying. Accordingly, the farmers were advised to dry their paddy. Frequent rains and cloudiness were yet another challenge for drying. Two solar bubble driers were available to farmers from Project side for mechanical drying. Similarly, the minimum requirement of parameters for rice milled out of paddy procured by PPCs is maximum foreign matter-0.5%, maximum broken -25% (including one % small broken), maximum damaged/ slightly damaged grains-3%, maximum discolored-3%, maximum chalky grains - 5%, maximum red grains-3%, maximum admixture-6%, maximum de-husked 13%, maximum moisture so content 14%-15%. Arranging rice samples of BINA Dhan 11 variety proved to be really difficult as most millers were not ready to mill a small quantity of paddy.

Test results: As per requirement, samples of both paddy and rice were tested and found qualifying for paddy procurement. For instance, it was heartening to note that the results of BINA Dhan 11 paddy sample test carried out by FCI, Guwahati office revealed a moisture content of 14.5%, organic foreign matter 0.3%, inorganic foreign matter 0.2%, damaged, discoloured, sprouted and weevilled grains 3.5%, immature, shrunken, shriveled grains 2.5%, admixture 2% with an L:B ratio of more than 2.5%. Similarly, the results of BINA 11 rice sample test carried out by FCI, Guwahati office revealed organic foreign matter 0.2%, inorganic foreign matter 0%, small broken 0.5%, big broken 18%, damaged/slightly damaged 2.8%, discoloured 1%, chalky 2%, red 1%, admixture 1.5%, dehusked 10%, moisture 13.1%.



Testing of Bina 11 sample at ASAMB Pathsala PPC

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Availability of PPCs: While the paddy production is Pan Assam, the Project noted that the availability of PPCs was not uniform. It was found that PPC density was extremely low in most of the Upper Assam and Barak Valley districts. It was reported that setting up of PPCs is correlated with the availability of rice mills in a particular area. The Project, however, arranged for transportation of farmers' paddy from areas with scarcity of PPCs to the areas with abundance of PPCs that no willing farmer was deprived of the opportunity to sell through PPCs at MSP.

Prior registration of farmers: In order to reach out to actual farmer-seller with adequate information about quality of paddy required to be brought into the PPC and also to assess the probable quantity of arrival, registration prior to commencement of procurement is done by respective PPCs through a farmer certificate issued by District Agriculture Office/ Sub-office. Obtaining the farmer certificate was another challenge in many places, as a large chunk of officers at district level were involved in National Register of Citizens (NRC) duty. This was, however, accomplished through continuous follow-ups and reaching out to DoA staff wherever they were available.

Immediate payment & opening of farmers' bank accounts: As per the guidelines of Paddy Procurement Program, the payment to farmers needs to be made immediately through online fund transfer in their bank accounts. However, many farmers did not have a bank account number and the Project facilitated opening of bank accounts for these farmers which proved to be helpful to farmers for other purposes as well. To ensure immediate payment, PPCs need to have sufficient funds available with them before buying of paddy. In case of ASAMB, small amounts in multiple tranches were released to PPCs which proved another hindrance in procuring large quantities of paddy. Fund release to PPCs was tracked on a daily basis and farmers were facilitated to take their paddy to PPCs having funds to procure the paddy.

With the committed dedication of the team at a time when transplanting of the new paddy crop was in progress, APART could facilitate procurement of about 120.233 MT of BINA Dhan 11 at MSP translating to a net realization of about Rs. 21 lakhs and a net margin of about Rs. 6 lakhs over market prices, leaving behind smiles on many farmers' faces, most of whom were unaware of Government procurement processes till now.

With respect to KVKs/RARs/HRS, the role of Assistant Project Scientists/ Research Technicians/ Project Associates under the able guidance of station heads needs to be lauded, while in respect to District ATMAAs, role of ATMs, BTMs with the support of DAOs/ PDs demands appreciation who constantly followed up with various offices including Regulated Market Committees (RMCs), FCI PPCs etc to get the program going. At the HQ, the Project Leadership, Post Harvest team, Agriculture team and IRRI team deserves special mention.

Seeing the successful direct beneficiaries, substantially high adoption of the BINA Dhan 11 variety is expected in the field, and more efforts will be put in for better facilitation to achieve a greater quantity of paddy procurement by the Government agencies from APART beneficiaries from the next season onwards with enhanced MSP of Rs. 18.15 per kg of paddy, as notified. Side by side the Project is also exploring facilitation of open market procurement of paddy at better prices, through, adjustments in sowing/ transplanting dates, crop management, enhanced primary value addition, informed decision on time to sell, negotiations with market actors and better understanding their requirements.

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