



BARC

Newsletter

Towards Building Advanced Intelligent System for Agriculture



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World Food Day 2021



Hon'ble Prime Minister Sheikh Hasina Unveiling 100 years of Agricultural Development in Bangladesh on World Food Day 2021

World Food Day 2021 was observed on 16 October, 2021 in Bangladesh through various programs. The theme of the day was **Our actions are our future- Better production, better nutrition, a better environment and a better life.**

Marking the day, the Ministry of Agriculture initiated different events including international seminars, public awareness-raising activities etc. An international seminar was organized at Intercontinental, Dhaka. Hon'ble Prime Minister Sheikh Hasina virtually graced the seminar as chief guest and inaugurated the program. Agriculture Minister Dr. Muhammad Abdur Razzaque, MP

presided over the function. Food Minister Mr. Sadhan Chandra Majumder, and Fisheries and Livestock Minister Mr. SM Rezaul Karim were present in the event as special guests. In the inauguration ceremony Mr. Md. Mesbahul Islam, Senior Secretary, Ministry of Agriculture delivered the welcome address. Dr. Shaikh Mohammad Bokhtiar, Executive Chairman BARC, was present in the program.

A documentary on agriculture and food production was screened at the event. The Prime Minister unveiled a book named *100 years of Agricultural Development in Bangladesh* published by BARC and introduced *Bangabandhu Dhan-100* developed by BRRI.

Hon'ble PM said, "I think our agricultural scientists are the best scientists in the world and I expressed my gratitude to them." She also added her government will build a hunger-and-poverty-free Bangladesh as dreamt by Father of the Nation Bangabandhu Sheikh Mujibur Rahman where all the fundamental rights of people such as safe food, nutrition, education, residence etc will be ensured.

Officers from the Ministry of Agriculture, Ministry of Fisheries and Livestock and Divisional, District and Upazila level officers of the Ministry of Food were also virtually connected.

Inauguration of GIFS Regional Office at BARC Campus



Dr. Muhammad Abdur Razzaque, MP, Hon'ble Minister, Ministry of Agriculture inaugurating the regional office of the GIFS at AIC, BARC

A Regional Office of the Global Institute for Food Security (GIFS), Saskatchewan University, Canada was inaugurated by Agriculture Minister Dr. Muhammad Abdur Razzaque, MP at the Bangladesh Agricultural Research Council premises on 12 December, 2021 to help agricultural researchers of the country gain advanced knowledge and skills. This is the first time that an institute of a foreign university has been established in Bangladesh. David Marit, Agriculture Minister of the Saskatchewan government joined the ceremony virtually.

Dr. Abdur Razzaque said, the Saskatchewan region has a worldwide reputation for producing versatile and quality agro-food. So

their technologies and experiences can be utilized. Cooperation between Bangladesh and Canada in the field of agriculture will be further strengthened.

"But there are many challenges in the future to sustain and increase the growth of agricultural production. The GIFS regional office will play an important role in addressing these challenges and making food security sustainable," he opined.

David Marit said the establishment of this office would further enhance cooperation between the two countries in the field of agriculture.

Mr. Md. Mesbahul Islam, Senior Secretary, MoA; Benoit

Préfontaine, Canadian Ambassador to Dhaka; HE Mr. Khalilur Rahman, Bangladesh Ambassador to Canada; Bangabandhu Research Chair at GIFS Dr. Andrew Sharpe; Dr. Baljit Singh, Vice-president (Research) at the University of Saskatchewan; Dr. S M Bokhtiar Executive Chairman, BARC and Mr. Md Ruhul Amin Talukder, Additional Secretary, MoA were present on the occasion.

Earlier on 10 February 2020, a Memorandum of Understanding (MoU) was signed between BARC and GIFS for developing cooperation between BARC and GIFS.

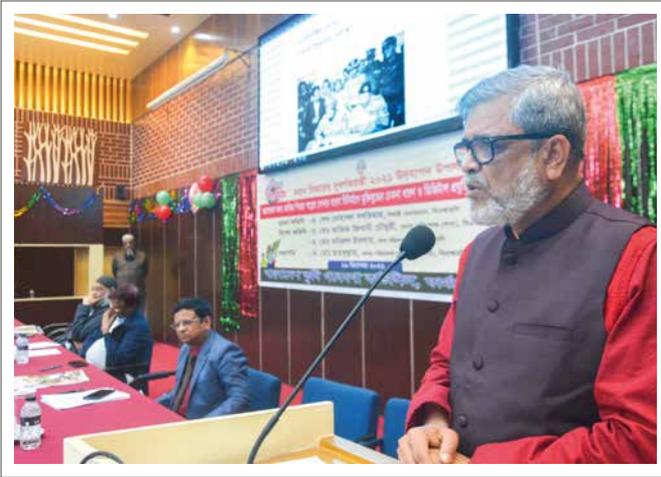
Golden Jubilee of Victory Celebrated

The Golden Jubilee of glorious **Victory Day** was celebrated on 16 December, 2021 at BARC premises in a befitting manner. To celebrate the day, at the morning the Executive Chairman of BARC Dr. S M Bokhtiar hoisted the National Flag and placed

floral wreaths at the statue of Bangabandhu Sheikh Mujibur Rahman at BARC campus with his staff.

Later, a discussion meeting on holding the spirit of liberation war and making the best use of

digital technology in building the 'Sonar Bangla' of the dream of the father of the nation and Doa Mahfil for the freedom fighters and martyrs were held at BARC auditorium in presence of Dr. S M Bokhtiar as chief guest and Dr. Md. Saifullah, Member Director



The Executive Chairman, BARC delivering his speech



Placing Floral Wreath at Bangabandhu's Mural by BARC Officials

(Administration and Finance) as chairperson of the program.

Service Tenure of BARC Executive Chairman Extended for Two Years



Scientists, officers and staff of BARC congratulate Executive Chairman on extension of his service tenure



Dr. Shaikh Mohammad Bokhtiar, Executive Chairman of Bangladesh Agricultural Research Council has been given tenure extension as Executive Chairman for a period of two years for his remarkable contribution of the history of the council. On this occasion on 21 December, Greetings Exchange Ceremony was held at BARC auditorium. Member Directors, Directors, Scientists, Officers, Staff participated at the program and gave floral reception to him.



Felicitation from Agricultural Information Centre, BARC

Consultation Workshop of Land Suitability Assessment and Crop Zoning System of Bangladesh Project

Bangladesh Agricultural Research Council has been implementing the Development of Upazila Land Suitability Assessment and Crop Zoning System of Bangladesh project since June 2017. The overall objective of the project is to support government's strategy in developing crop zoning to facilitate more efficient and sustainable agricultural production systems in the context of food and nutritional security. The work is of much importance; as currently the country is facing different challenges to elevate productivity and to sustain growth in feeding the increasing population.

During the period October-December 2021, a lot of activities were carried out in achieving the goals and objectives of the project. In the meanwhile, crop zoning has been accomplished for 279 out of 492 upazilas. The information is available through Crop Zoning Information System, 'Khamari' mobile app and agri-advisory portal (www.cropzoning.gov.bd).

In view of creating awareness on the recent development of online crop zoning software and 'Khamari' mobile app and gathering feedbacks and



Hon'ble guests of the Workshop of Land Suitability Assessment and Crop Zoning System of Bangladesh Project

suggestions from the stakeholder organizations a consultation workshop of the project was held on 4 October 2021 at the Auditorium of BARC. The Executive Chairman of BARC, Dr. Shaikh Mohammad Bokhtiar attended in the workshop as chief guest, Director (Field Service), DAE and Executive Director of KGF were special guests. The workshop was chaired by the Member Director (Crops) and Coordinator of crop zoning project. The participants of the workshop were Principal Investigator and Co- Investigator of BARC, SRDI and IWM, Focal

Points of DAE, BARI, BRRI and BINA, DAE officials from regional, district and upazila level, scientists and officers of BARC and NARS institutes, KGF officials, farmer's representative and former and present crop zoning project staff.

The Executive Chairman of BARC emphasized that the user friendliness of crop zoning software should be given top priority. He also suggested development of a complete crop zoning system through incorporating the feedback and suggestions of the stakeholders.

Improving Research Qualities of ARI's through Review and Evaluation by an External Panel of Experts'

Planning and Evaluation Division, BARC organized an inception workshop on **Improving Research Qualities of ARI's through Review and Evaluation by an External Panel of Experts** on 28 December, 2021 at BARC Auditorium. Dr. Shaikh

Mohammad Bokhtiar attended the workshop as chief guest. Dr. Md. Abdus Salam, Member Director (P&E), BARC; Member Secretary, Expert Panel and Co-investigator of 'Improving Research Qualities of ARI's project' presided over the workshop. Director General,

Directors 6 ARIs (BARI, BRRI, BINA, BJRI, BSRI & BWMRI) institutes and Member Directors of BARC, Higher Officers of MoA and Representative from DAE were participated at the workshop. The hon'ble chief guest thanked

the Six ARIs DGs and Directors for attending the program. He emphasized on the development of institutional capability, management and human resource development. He proposed to create a board for NARS institutes on recruitment process and promotion.

The 6 ARIs Institutes chief agreed on the proposal and also gave their fruitful opinion for the development of NARS Institutes research.



External Panel of Experts of Agricultural Research Institutes

Workshop on Fourth Industrial Revolution

The **Fourth Industrial Revolution (4IR)** is now at our doorstep and has appeared as a blessing for the nation. It has opened new windows for taking new initiatives in the agricultural sector for a potential transition in the sector. A day-long workshop titled **Challenges to meet the Industrial Revolution** was held on 23rd November 2021 at the BARC training building. The Computer and GIS Unit of BARC organized the training with technical support from the Aspire to Innovate (a2i) program of the ICT division. Fifty (50) BARC scientists/officers attended the workshop. The program was presided over by Dr. Md. Mosharraf Uddin Molla, Member Director, AERS and Dr. Md. Aziz Zilani Chowdhury, Member Director, Crops was present as the chief guest. Mr. Hasan Md.



Workshop on Fourth Industrial Revolution

Hamidur Rahman, Director, Computer & GIS delivered the welcome speech in the workshop. He hoped that this workshop will facilitate the participants to learn about the potential usage of frontier technologies in the agricultural sector such as Artificial Intelligence

(AI), Machine Learning (ML), Deep Learning (DL), Unmanned Aerial Vehicle (UAV), Biotechnology etc. It will also help to build a knowledge-based skill development towards precision agriculture and smart farming.

Training on Service Process Simplification for BARC Personnel

An interactive training titled **Service Process Simplification (SPS)** was held on 29 December 2021 at BARC. The Computer and GIS Unit of BARC organized the training with technical

collaboration with the Aspire to Innovate (a2i) programme of the ICT division. Dr. Shaikh Mohammad Bokhtiar, Executive Chairman, BARC was present as the chief guest and Dr. Md.

Mosharraf Uddin Molla, Member Director, AERS presided over the inaugural session of the program. Mr. Hasan Md. Hamidur Rahman, Director, Computer & GIS gave the welcome speech and briefed of

the workshop. The inaugural session was followed by a technical session which was addressed by Mr. Golam Mohammed Bhuiyan, National Consultant, a2i. Twenty five (25) BARC scientists/officers attended the training program. SPS is an e-governance initiative to simplify access to public services by reducing time, cost and number of visits (TCV). This training helps the BARC professionals to simplify the services provided by BARC for the citizens to easily access the services as well as to improve the quality of the services.



Executive Chairman of BARC delivering speech on Service Process Simplification

Research Review 2020-2021 and Research Program 2021-2022 of Bangladesh Livestock Research Institute

Livestock Division, BARC organized Annual Review Workshop on **Research Review 2020-2021 and Research Program 2021-2022 of Bangladesh Livestock Research Institute** held during 31 October-01 November, 2021 at BARC Auditorium. Participants from different organizations and universities such as DLS, BLRI, FAO, CVH, CDIL, NIB, ICDDR, KGF, PIU-BARC, BAU, CVASU, SAU, HSTU, Sylhet AU were participated in the workshop. The inaugural session was chaired by Dr. Nazmun Nahar Karim, Member Director (Livestock). Dr. Md. Aziz Zilani Chowdhury, Member Director (Crops), BARC was present as the chief guest and Dr. Md. Abdul Jalil, DG, BLRI and Dr. Nilufa Begum, Director (Research, Training & Evaluation), Livestock Research Institute, DLS were present as special guests. Welcome address was delivered by Dr. Mohammad Rafiqul Islam, Chief Scientific Officer, Livestock Division, BARC. He briefed a presentation



Annual Review Workshop of Bangladesh Livestock Research Institute

about the recommendations of the last year annual review workshop. Technical session-1 was chaired by Dr. Kazi M. Kamaruddin, Consultant, Livestock Division, BARC and Technical session-2 was chaired by Dr. Md. Jahangir Alam Khan, Vice-Chancellor, University of Global Village and Former Director General, BLRI. The Research Review 2020-2021 and Research Program 2021-2022 were presented by Head of AHRD, APRD, PPRD, GSPRD, BD, SERD, SRD of BLRI. The presentations were followed by

lively discussions.

The concluding session was graced by Dr. Md. Aziz Zilani Chowdhury, MD (Crops). In the concluding session the rapporteurs were presented their report. Draft recommendations were taken in this session. At the end Dr. Nazmun Nahar Karim, Member Director (Livestock), BARC concluded the annual workshop with giving thanks to the participants for their spontaneous contribution. Proceedings of the workshop has been sent to respected institutions.

Antimicrobial Resistance in Bangladesh

Livestock Division, BARC organized a training Program on **Antimicrobial Resistance in Bangladesh** on 29 November to 02 December, 2021 at the Conference Room, Department of Medicine, Faculty of Veterinary Science, Bangladesh Agricultural University, Mymensingh. In this training course, thirty teachers/officers from university, medical college and Department of Livestock Services (DLS) attended as participants. The inaugural session was chaired by Dr. Mohammad Rafiqul Islam, CSO, Livestock Division, BARC. Professor Dr. Md. Mokbul Hossain, Dean, Faculty of Veterinary Science, BAU was present as chief guest in the inaugural session. Professor Dr. Md. Abu Hadi Noor Ali Khan, Director, Bangladesh Agricultural University Research System, BAU was present as special guest. Welcome address was delivered by Professor Dr. Kazi Rafiqul Islam, Department of Pharmacology, BAU.



The inaugural session of the Training Program on Antimicrobial Resistance in Bangladesh

Resource persons successfully delivered lectures and conducted practical sessions on antibiotics present status, implication and opportunities, discriminate and indiscriminate use of antimicrobial drugs and environmental hazards, hands on training of collection, transportation and preservation of samples, hands on training of bacterial culture rational basis of

antibiotic therapy, biosafety and biosecurity for AMR laboratory, AMR control: one health approach, hands on training of culture sensitivity test, AMR/AMU situation in Bangladesh and AMU guidelines. After successful completion of the course, certificates were given to the participants.

Workshop on Data Validation of PBRG Sub-Project

Livestock Division, BARC organized a very interactive and outcome based data validation workshop on PBRG sub-project 'Development of knowledge hub on Feed Resources for efficient feeding management of livestock' on 12 December 2021 at BARC. The inaugural session was graced by Dr. Nazmun Nahar Karim, Member Director (Livestock), BARC as the chief guest while Dr. Nathu Ram Sarker, Director, Livestock & Fisheries, KGF as the special guest. The inaugural session was chaired by Dr. Mohammad Rafiqul Islam, CSO, Livestock Division, BARC & Associate Coordinator of this sub-project. Dr. Mohammad Showkat Mahmud, SSO, Livestock



Photographic view of Data Validation Workshop on PBRG Sub-project at BARC

Division, BARC delivered welcome remarks and short brief of the project. The workshop

was attended by the participants from different organizations (DLS, BLRI, BARC, BAU, SAU,

BSMRAU, Sylhet AU, PKSF & KGF). Principal Investigators of BAU, BLRI and SAU components presented their data for validation. The presentations were followed

by active discussions of expert members Dr. Khan Md. Shaiful Islam, Professor, Animal Nutrition, BAU, Mymensingh; Dr. Abu Sadeque Md. Selim, Professor,

Animal Science and Nutrition, BSMRAU, Gazipur And Dr. A. B. AM Khaleduzzaman, DD, DLS. and recommendations were finalized in this workshop.

Cost and Return Analysis of Selected Crops in Bangladesh

The Project Completion Report (PCR) Review workshop on **Cost and Return Analysis of Selected Crops in Bangladesh** was held at BARC on 25 October 2021 organized by Agricultural Economics & Rural Sociology (AERS) Division, BARC. The Executive Chairman, BARC, Dr. Shaikh Mohammad Bokhtiar graced the workshop as Chief Guest. At the outset, the chairperson of the workshop Dr. Md. Mosharraf Uddin Molla, MD (AERS) and Coordinator of NATP-II, PBRG Sub-Project welcomed all distinguished audience and made a brief presentation regarding the execution of the project activities highlighting on challenges of the project implementation during COVID-19 as well as summary findings especially usefulness of this research for agriculture policy. The Sub-Project coordinator also mentioned about the necessity of this type of project on other crops, which could be supportive for policy makers and market policies.

A total of 72 participants including scientists, professors, agriculture experts and delegates attended the workshop from different

research institutes, universities and private sectors. The technical session was presided over by former Professor Dr. Md. Rezaul Karim Talukder, Department of Agricultural Economics, Bangladesh Agricultural University, Mymensingh. On behalf of the coordinating part, Dr. Md. Abdur Rashid, CSO and Head, Agricultural Economics Division, BARI and PI of the Sub-Project presented the detailed findings of cost and return of the selected crops in the technical session. Four expert reviewers namely Dr. A.S.M. Anwarul Huq, Former DG,

BJRI, Prof. (Ex.) Dr. Shaikh Abdus Sabur, BAU, Prof. Dr. Mohammad Mizanul Haque Kazal, SAU and Dr. M. Shahe Alam, Former CSO, Agricultural Economics Division, BRRI reviewed the presented research program critically. However, the expert members and the distinguished participants appreciated the successful completion of the project and suggested to update the cost and return information by three years interval and undertake this type of project activities on other crops as well by the respective division of NARS institutes.

Research Review 2020-21 and Research Program 2021-22 on Agricultural Engineering of NARS Institutes

Agricultural Engineering Unit, Natural Resource Management (NRM) Division, BARC organized a workshop on **Research Review 2020-21 and Research Program 2021-22 on Agricultural**

Engineering of NARS Institutes at BARC during 24-25 October 2021 with the participation of the institutes from the NARS (BARI, BRRI, BINA, BSRI and BWMRI), DAE, BADC, RDA, Agricultural

universities, etc.

The inaugural session was chaired by Dr. Mian Sayeed Hassan, Member Director (NRM), BARC on 24 October



Hon'ble guests of Project Completion Report (PCR) review workshop

2021. Dr. Nazmun Nahar Karim, Member Director (Livestock) and CSO, Agril. Engg. Unit, BARC briefed the present scenarios of agricultural mechanization in Bangladesh and the previous year's comments/recommendations in her welcome address. Dr. N N Karim also emphasized on undertaking researches considering national agricultural policy-2018, national agricultural mechanization policy 2020, perspective plan, national agricultural extension plans etc.

The chief guest of the inaugural session, Dr. Shaikh Mohammad Bokhtiar, Executive Chairman, BARC urged the concerned scientists to work with due importance on agricultural mechanization in Bangladesh following government's priorities. He also highlighted the agricultural researches that need immediate attention in research for food security of the country.

Technical session-I (Irrigation and Water Management) was chaired by Dr. Wais Kabir, Former



Research Review 2020-21 and Research Program 2021-22 on Agricultural Engineering of NARS Institutes

Executive Chairman, BARC and Former Executive Director, KGF. Technical session-II (Post Harvest Technology) was chaired by Professor Dr. Md. Shams-Ud-Din, Vice-Chancellor, German University Bangladesh (GUB). Technical Session-III (Farm Machinery) was chaired by M. Harun Ur Rashid, Former Director General, BARI & Former Executive Chairman, BARC on

25 October, 2021. At the end of each session, participants participated in the discussion on the presentations presented by Agricultural Engineers of NARS Institutes. Finally rapporteurs prepared the recommendation on each session based on the expert members and participants' discussions and circulated to the concerned scientists for their consideration.

Feasibility Study of the IoT Based Precision Agriculture for Sustainable Crop Production in Bangladesh

Agricultural Engineering Unit, Natural Resource Management (NRM) Division, BARC organized an inception Workshop on **Feasibility study of the IoT based precision agriculture for sustainable crop production in Bangladesh** at BARC on 19 December 2021 with the scientists/experts participations of BARC, BARI, BRRI, BINA, SRDI, BADC, BAU, BSMRAU, SAU, Nodes Digital Ltd., and KGF.

Technical session was chaired by Dr. Nazmun Nahar Karim, Member Director (Livestock), BARC and Coordinator of the Project. The chief guest was Dr. Shaikh



The chief guest Dr. S M Bokhtiar, EC, BARC delivering his speech

Mohammad Bokhtiar, Executive Chairman, BARC. The special guests were Dr. Debasish Sarker,

Director General, BARI, Gazipur and Dr. Jiban Krishna Biswas, Executive Director, KGF, Dhaka.

Dr. N N Karim, coordinator of this project briefed on the inception report in her welcome address. Dr. AFM Tariqul Islam, Principal Investigator, BARI-component and SSO, ASICT Division, BARI presented the inception report of the project on behalf of the project

team. An interactive open discussion on the inception report was carried on after the presentation. Md. Abdul Kader, Scientific Officer, Ground Water Project and Tanki Ashraf, Scientific Officer, Solar Pump Project, Agricultural Engineering Project,

BARC were rapporteurs of this session.

Finally, Dr. S M Bokhtiar delivered his speech as chief guest and Dr. Debasish Sarker and Dr. Jiban Krishna Biswas delivered their speeches as special guests.

Training on Citizen Charter

A day long training on **Citizen Charter** was held on 30 November 2021 at BARC. It was arranged by Manpower & Training Unit, BARC as per Annual Performance Agreement, 2021-2022. The objective of the training was to make administration more accountable, responsive, transparent and citizen friendly. A total of 40 employees of BARC participated in the training program. Dr. Md. Aziz Zilani Chowdhury, Member Director (Crops) inaugurated the training session as the chief guest.



Dr. Md. Aziz Zilani Chowdhury, Member Director (Crops) inaugurating the training

Training on BARC Activities and Service Rules & Regulations

Manpower & Training Unit organized orientation training for new employees of BARC on 25 November 2021 at BARC. The objective of the training was to orient new employees about BARC activities and Service rules & regulations. A total of 30 new employees participated in the training program. Dr. Md. Aziz Zilani Chowdhury, Member Director (Crops) inaugurated the training session as the chief guest.



Picture of the Participants of Training on BARC Activities and Service Rules & Regulations

Training of Trainers (ToT)

Postharvest losses of fresh fruits and vegetables of Bangladesh are about 25-50%. The total loss due to poor postharvest processing of fruits in Bangladesh when valued in monetary terms reflects a tremendous loss in the economy. In this view prominence on during

the pandemic COVID 19 situation, a three day-long 12-14 October 2021, **Training of Trainers (ToT)** program on Post-harvest Management of Fruits and vegetables was conducted at Bangladesh Agricultural Research Institute (BARI), Gazipur. This

program was jointly organized by Technology Transfer and Monitoring Unit (TTMU), BARC and BARI. Thirty Agriculture Officers (Upazila Agriculture Officer, Agriculture Extension Officer) from 26 districts participated in this training.



Training of Trainers (ToT) program on Post-harvest Management of Fruits and vegetables at BARI, Gazipur

Dr. Md. Nazirul Islam, DG, BARI, Dr. Mohammad Shamsul Alam, Director (Training) and Md. Hafizul Haque Khan, CSO Post Harvest Technology Division, BARI was present as chief guest and special guest and chairperson respectively, in the inaugural session. Dr. Fauzia Yasmin, Director (TTMU), BARC and Dr. Md. Golam Ferdous Chowdhury,

SSO, Post-Harvest Technology Division were present as chief guest and special guest respectively, in the closing and certificate giving ceremony.

Ten different technologies on Post-harvest Management of Fruits and vegetables were transferred in three days training program. A detailed discussion

was held between participants and researchers through lecture and visits (field and laboratory). The participants opined that this training is more effective for post harvest losses and also for preservation. The participants suggested that, this type of training should be organized in other regions of the country.

Agriculture Technology Extension Coordination Committee (ATECC) Meeting Rabi Season /2021

A day-long meeting of **Agriculture Technology Extension Coordination Committee (ATECC) for Rabi Season/2021** was held on 2 December 2021 at BARC. The meeting was presided over by Dr. Shaikh Mohammad Bokhtiar, Executive Chairman, BARC. In his welcome address, Dr. S M Bokhtiar acknowledged the relentless work of agriculturists as well as extension worker in ensuring food security for the growing population and achieving the SDGs and agricultural development. He hoped that this meeting will help in disseminating Stress tolerant, high yielding, climate resilience varieties.

Mr. A K M. Monirul Alam, Director, Field Service wing, DAE co-ordinated this meeting as the member secretary of this



Agriculture Technology Extension Coordination Committee (ATECC) meeting

committee. All the participants of ATECC from NARS institutes, DAE, DAM, BADC, AIS, BIRTAN, SCA, Hortex foundation, BARC and private organization joined the meeting. Dr. H. M.

Moniruzzaman, Deputy Director (Extension), DAE presented all activities of this meeting. Dr. Fauzia Yasmin, Director (TTMU), BARC as member of this committee attended this meeting.

The BARC Newsletter is published quarterly by Bangladesh Agricultural Research Council (BARC) to provide news and information on agricultural research and development of the NARS and other concerned organizations in Bangladesh.

Any query concerning the newsletter or its contents, comments and suggestions for our endeavour would highly be appreciated.

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