



BARC

# Newsletter

Towards Building Advance Intelligent Systems for Agriculture

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## World Food Day 2022



*Hon'ble Prime Minister Sheikh Hasina Inaugurated the World Food Day 2022*

World Food Day 2022 was observed on 17 October 2022 in Bangladesh taking various programs. The theme of the day was 'Leave no one behind: 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 Osmani Memorial Auditorium, Dhaka. Hon'ble Prime Minister Sheikh Hasina virtually graced the seminar as chief guest. Hon'ble

Food Minister Mr. Sadhan Chandra Majumder presided over the function. Hon'ble Fisheries and Livestock Minister Mr. SM Rezaul Karim and Begum Matia Chowdhury, MP were present at the event as special guests. In the inauguration ceremony Mr. Md. Sayedul Islam, Secretary, Ministry of Agriculture delivered the welcome address.

There was a technical session presided over by Mr. Md. Sayedul Islam, Secretary, Ministry of Agriculture. Mr. Md. Shahab Uddin, MP, Minister, Ministry of Environment, Forest and Climate

Change was present as chief guest. Dr. Nahid Rashid, Secretary, Ministry of Fisheries and Livestock; Mr. Md. Ismiel Hossain NDC, Secretary, Ministry of Food and Dr. S M Bokhtiar, Executive Chairman, BARC were present as special guests. Dr. Debasish Sarker, DG, BARI was the keynote speaker of the session.

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

## 52<sup>nd</sup> Victory Day Celebrated



*Executive Chairman, BARC Delivering Speech*



*BARC Officials Placing Floral Wreaths at Bangabandhu's Mural*

The 52<sup>nd</sup> glorious Victory Day of Bangladesh was celebrated on 16 December, 2022 at BARC premises in a befitting manner. To celebrate the day, in the morning 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 the BARC campus with his staff. A Bijoy Rally was also held at the premises.

Later, a discussion meeting on holding the spirit of the liberation war to build 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. Dr. S M Bokhtiar, EC, BARC was present as chief guest and Dr. Md. Saifullah, Member Director (Administration and Finance) was the chairperson of the program.

## Training on Bioinformatics for Sustainable Development in Agriculture



*Training Program on Bioinformatics for Sustainable Development in Agriculture*



Livestock Division, BARC organized a training program on *Bioinformatics for Sustainable Development in Agriculture* on 27 November to 01 December 2022 at BARC. In this training course, twenty officers from NARS institutes (BARI, BRRI, BSRI, BFRI,

BJRI, BINA, BLRI, and BARC) were present as participants. The inaugural session was chaired by Dr. Nazmun Nahar Karim, Member Director, Livestock Division, BARC. The training program was inaugurated by the chief guest Dr. S M Bokhtiar, EC, BARC. Dr.

Mohammad Rafiqul Islam, CSO, Livestock Division, BARC delivered the welcome address. Resource persons successfully conducted lectures and practical sessions on Introduction to Bioinformatics and General Aspects, Bioinformatics for Sustainable Agriculture, and

Hands-on Training on Bioinformatics Database. Introduction to NCBI, Ensemble, and TAIR database, Hands-on training on gene/promoter prediction, Hands-on training on Primer design, Hands-on training on BLAST and Sequence Alignment, Hands-on training on exploring Plant Metabolic

Pathway Databases and Ensemble Plants Database, Hands-on training on Protein Identifications, Protein sequence and functional information database (UNIPROT), Hands-on training on Protein functions, Domain and Motif Analysis, Hands-on training on Prediction of Immunogenic and Antigenic Peptides and Antigenic

Propensity Analysis, Hands-on training on exploring Kyoto Encyclopedia of Genes and Genomes (KEGG) and Data mining. After the successful completion of the course, certificates were awarded to the participants.

## Review Workshop on Citizen Charter of BARC

A day-long review workshop on *Citizen Charter of BARC* was held on 26 October 2022 at BARC. Manpower & Training Unit organized the program in coordination with the Citizen Charter update & Citizen Monitoring Committee of the Council. The main objective of the program was to review the public services of BARC through the participation of all Divisions, Units, and Sections. Dr. S M Bokhtiar, EC, BARC was present as chief guest and Dr. Md. Baktar Hossain, Director (Manpower & Training), BARC attended as special guest. Dr. Md. Saifullah, Member Director (A&F), BARC presided over the workshop. A total of 80 employees of the council took part in the program. Mr. Md. Al Mobasher Hussen, Principal Training Officer and alternate focal point, citizen charter, BARC welcomed the participants and highlighted the importance of the program in his welcome speech.

Mr. Md. Mustafizur Rahman, Principal Technical Officer and Member Secretary, Citizen Charter presented a brief on Citizen Charter update guidelines and



*Dr. S M Bokhtiar Delivering Speech as Chief Guest*

Citizen Charter Work Plan, 2022-23 made by the Cabinet Division.

The Session Chair of the program, Dr. Md. Saifullah, MD (A&F) asked to present the existing and proposed services by all Divisions/Units for inclusion in the Citizen Charter. Dr. Mian Sayeed Hassan, Member Director (NRM), and Mr. Hasan Md. Hamidur Rahman, Director (Computer & GIS) were present as discussants in the program.

After fruitful discussions, comments, and suggestions, it was

decided to take the necessary steps to finalize new and updated services proposed by Divisions and Units following Citizen Charter guidelines. The Citizen Charter Update Committee of BARC would take necessary action on the above.

The chief guest, Dr. S M Bokhtiar, EC, BARC emphasized ensuring transparency and accountability in public services; everyone should have a friendly mentality from their respective positions.

## Food Safety, Nutrition, and Public Health Concerns in Bangladesh



Group Photo of the Trainees with the Chief Guest

Food safety, nutrition, and public health issues are closely associated to ensure a safe and healthy life. In Bangladesh, to ensure food safety, issues are major challenges that persist at every level of the food chain from production to consumption. In addition, unsafe food creates public health issues, hampers safe food supply, and reflects national economies, trade, tourism, and sustainable development. According to this apprehension, the Nutrition unit, BARC organized a three-day long training program entitled *Food Safety,*

*Nutrition, and Public Health Concern in Bangladesh* on 6-8 December 2022 at BARC. Dr. S M Bokhtiar, EC, BARC, and Dr. Md. Baktear Hossain, Member Director, Natural Resources Management Division & Director, Training & Manpower Unit were present as chief guest and special guest respectively.

Fifteen training sessions were held where thirty scientists/officers of NARS institute, BARTAN, NIB, BCSIR, officers of Extension Departments (DAE, DoF, DLS), and DAM attended as trainees.

Resource Speakers were from Dhaka University, Islamic University, Bangladesh Food Safety Authority, BARC, PIU-BARC, NATP-2, and DLS. The speakers provided lectures on Food Safety, Nutrition, and Public Health Concerns related issues along with research thrust in Bangladesh. The participants opined that it was a time-demanding training program that meets global and country-level expectations. The duration of the training should be increased as well as new topics may be incorporated, they also added.

## Workshop on Finalization of GAP Standard (Module)

Good Agricultural Practices (GAP) will confirm producing safe and quality food as well as ensure environmental and social protection. After the adaption of Bangladesh GAP Policy-2020 as Scheme Owner BARC has been working continuously with the GAP unit to implement at field levels together with Bangladesh Agricultural Certification Body, DAE. According to the decision of the Steering Committee, a day-long workshop on the Finalization of GAP Standard (Module) was held on 13 October 2022 at BARC chaired by Dr. S M Bokhtiar, EC, BARC and Convener of Technical Committee. Mr. Md. Ruhul Amin Talukder, Additional Secretary (PPC), MoA was present as chief guest. Dr. Mian Sayeed Hassan, Member Director, NRM Division and convener of the GAP unit, BARC presented the Welcome address and Keynote paper in the inaugural session. A total of 70 scientists/representatives from 28 organizations including focal



Finalization of GAP Standard (Module) Workshop

points of NARS institutes, DAE, AIS, DAM, BADC, SCA, BSTI, BFS, BAB, Consumer Association, Private organizations, Directorate of National Consumers Right Protection, Export Promotion Bureau participated in the workshop. Group discussion was held in the technical session chaired by Dr. Md. Abdus Salam, Member Director (P&E), BARC. After a detailed discussion, the

compliance criteria and control points of the five modules have been modified accordingly. These compiled GAP modules will be placed to the Technical Committee and then to Steering Committee for final approval. After the approval of the GAP Standard (Modules), a new window for GAP implementation in Bangladesh will be opened.

## Bangladesh GAP Policy-2020 implementation Technical Committee meeting

The second Technical Committee meeting was held on 20 December 2022. The meeting was presided over by Dr. S M Bokhtiar, EC, BARC, and Convener of Technical Committee. Dr. S M Bokhtiar welcomed all the members and acknowledged their continuous support of GAP implementation. He mentioned that GAP implementation would largely depend on the technical support of this committee. As scheme owner, BARC is trying to conduct assigned activities on time so far.



Bangladesh GAP Policy-2020 Implementation Technical Committee Meeting

He also added that by the implementation of GAP, safe food would be ensured for domestic consumers and open a new window for the export market. Mr. Badal Chandra Biswas, Director (Field Service Wing), DAE, and member secretary of this

committee moderated the meeting according to the agenda. Several major technical issues viz., GAP Standard (Modules), revised GAP Logo/Mark, GAP certificate application form, and Bangladesh GAP (BGA) number have been approved from this meeting. A

total of 20 members from different institutes/organizations were present at the meeting. Dr. Mian Sayeed Hassan, Member Director (NRM), PRL, and former convener of GAP unit, BARC has been Co-opted as a technical specialist in this committee.

### Annual Review Workshop on Forestry and Agroforestry Programs of NARS Institutes

A two-day long workshop was held during 27-28 October 2022 at BARC on *Forestry and Agroforestry Programs of NARS Institutes*. A total of 80 (eighty) scientists/officers from BARC, BARI, BFRI, BJRI, BRRI, BSRI, CDB, DAE, SRDI, USFS, CEGIS, Caritas, etc. participated in the event. Research progress for the year 2021-22 and research programs for the year 2022-23 were reviewed in presence of a panel of renowned scientists and subject-matter experts. The inaugural session of the workshop was graced by Dr. S M Bokhtiar, EC, BARC as the chief guest while Dr. Md. Rafiqul Haider, Director of Bangladesh Forest Research Institute was present as the special guest. Dr. Mian Sayeed Hasan,



Dr. S M Bokhtiar, EC, BARC Delivering Speech on Forestry and Agroforestry Programs of NARS Institutes

Member Director of Natural Resources Management Division of BARC presided over there. Dr. Md. Saifullah, Member Director

(Finance & Administration) and Chief Scientific Officer (Forestry) of BARC provided the welcome speech.

### Microbial Characterization of Bangladesh Soil and Development of Climate Smart Biofertilizers for Crop Production and Soil Fertility

The Project Completion Workshop on *Microbial Characterization of Bangladesh Soil and Development of Climate Smart Biofertilizers for Crop Production and Soil Fertility* was held on 12 December 2022. The objectives of this workshop were to review the research progress of sub-project completion PBRG ID 043 under PIU-BARC NATP II. There are four components of this project coordinated by the Soils Unit,



Dr. S M Bokhtiar, EC, BARC Delivering Speech as Chief Guest

BARC. Scientists and academicians from the relevant fields of research Institutes and universities attended the workshop as expert members and offered a good number of recommendations/suggestions for incorporation in the final project completion report. Dr. S M Bokhtiar, EC, BARC graced the inaugural session as chief guest, Dr. Md. Harunur Rashid Director, NATP-2, PIU-BARC was the special guest while the session was chaired by Dr. Md. Baktear Hossain,

Member Director, NRM, BARC. Dr. Faridul Alam, PSO (Soils), BARC briefed the overall project completion report. Four expert members namely Professor Dr. Md. Abul Kashem, former Dean, Faculty of Agriculture, BAU; Professor Dr. M. Mazibur Rahman, former Professor, Dept. of Soil Science, BAU; Dr. M. A. Sattar, Former Director General, BINA; Dr. Monowar Karim, Senior Specialist, KGF attended the technical session for overviewing and appropriate suggestions for

improvement of the project completion report. The technical session 1 was chaired by Professor A. R. M. Solaiman, Pro-Vice Chancellor, MBSTU, Tangail. In Technical Session 2 chaired by Dr. S M Bokhtiar, EC, BARC. Dr. Khairul Alam, PSO (Soils), BARC presented all suggested recommendations. In the session, valued expert members and participants provided several opinions and recommendations.

### Final Workshop of TMT+ Courses

The final workshop of the *Tailor-Made Training Plus (TMT+)* on *Open-Source Scientific Computing for Agro Geospatial Big Data Analysis* was held at BARC on 24 November 2022. TMT+ has been a two-year-long project conducted in 5 consecutive phases both online and offline by The Faculty of Geoinformation Science and Earth Observation (ITC) of the University of Twente with funds from the Orange Knowledge Program of the Nuffic and was jointly executed by a consortium formed together with BARI, ITC, CIMMYT Bangladesh and BARC. Dr. S M Bokhtiar, EC of BARC attended the workshop as the chief guest while Mr. Thijs Woudstra, Deputy Head of Mission and Head of Development Cooperation & Economic Affairs, Embassy of the Kingdom of The Netherlands, Dr. Andy Nelson, Professor of ITC, Dr. Tomothy J Krupnik, Country Representative of CIMMYT-Bangladesh were present as the guests of honor. Dr. Ferdouse Islam, Director (Training



*Hon'ble Guests of the Workshop*

& Communication) of BARI presided over the final workshop. A total of 120 (one hundred and twenty) scientists and representatives including BARC, different other NARS institutes, DAE, SPARRSO, SoB, CEGIS, IWM, NGOs, agricultural universities, and professional organizations were present at the event. Certificates achieved by participants at different phases of

the training were distributed by the guests at the end of the workshop. Five (5) group project reports were presented both in poster and oral formats. The workshop ended up with the recommendation to utilize the capacity of Agro Geospatial Big Data analytics developed within the NARS system.

## Introducing BanglaJOL Open Access Portal and Improving BJA Publishing

According to the annual workplan Agricultural Information Centre (AIC), BARC, organized a day-long workshop on *Introducing BanglaJOL Open Access Portal and Improving BJA Publishing* on 1st December 2022 at BARC. The main objective of the workshop was to make the journal more useful for supporting and contributing to exchange of technical knowledge and experiences. This journal also provides an immediate new horizon in open access and a greater global exchange of knowledge freely available to the public.

Sixty scientists and officers from BARC attended the workshop. The inaugural ceremony of the program was graced by Dr. S M Bokhtiar, EC, BARC as chief guest. Dr. Md. Baktear Hossain, Member Director, Natural Resource Management Division and Director, Training & Manpower Unit, BARC was present as special guest. Dr. Kabir Uddin Ahmed, Director, AIC presided over the inaugural session of the program. Dr. Susmita Das, Principal



*Dr. S M Bokhtiar, EC, BARC Delivering Speech as Chief Guest*

Documentation Officer, AIC gave the welcome speech and highlighted the objectives of the workshop.

The inaugural session was followed by a technical session which was conducted by Dr. Kabir Uddin Ahmed, Director, AIC, BARC. Resource persons Md. Fahmid Uddin Khondoker, IT cum Monitoring Officer, BUEP & Journal Manager (BanglaJOL), BAS, and Mr. Abdullah Al Faysal, Jr. IT Officer, BanglaJOL, BAS gave lectures on the topic and its practical application of Introducing BanglaJOL Open Access Portal and

Improving BJA Publishing.

As the chief guest, Dr. S M Bokhtiar, EC, BARC emphasized the importance of BanglaJOL service which provides greater visibility for the online publication of Bangladesh Journal of Agriculture (BJA). He also highlighted the necessity of the online BJA journal and sharing scientific knowledge in all spheres for the global scientific community.

Dr. Kabir Uddin Ahmed, Director, AIC chaired the concluding session and thanked the guests and participants.

## Training Program on Project Development and Management

A five-day long training program on *Project Development and Management* has been completed during 04-08 December 2022 which was organized by the Planning and Evaluation Division, BARC. Dr. S M Bokhtiar, EC, BARC attended the inaugural session as the chief guest. Dr. Md. Abdus Salam, Member Director (P&E) presided over the inaugural ceremony. Senior Officers from different divisions of BARC were



*Certificate-giving Ceremony of Project Development and Management Training*

present at the inauguration ceremony. Dr. Kabir Uddin Ahmed, Chief Scientific Officer (Planning & Evaluation), BARC and the course coordinator of the training program delivered the welcome address. Thirty participants from the different NARS institutes including BARC attended the training program.

Resource persons were from BARC, National Academy for Planning and Development (NAPD), the Office of the Comptroller General of Accounts, and Directorate of Fire service and Civil defense Ministry of Home affairs. The topics of the training program were project cycle, project

appraisal, logical framework, preparation of different types of project documents (DPP/RDPP/TPP), developing winning research proposals, result-based monitoring, PPR-2008, financial delegations, SWOT, Objectives, and problem tree analysis, etc. The training program was conducted based on class lectures, practical sessions, and open discussions. The chief guest in his speech mentioned that this training program was organized to make the participants conversant with project planning and management. The chairperson of the training program in his speech

expected that this training program would be helpful for the participants to prepare and manage different kinds of projects properly and efficiently.

The training program ended on 08 December 2022 through a certificate-giving ceremony where Dr. S M Bokhtiar, EC, BARC was present as chief guest and Dr. Md. Abdus Salam, Member-Director (Planning & Evaluation) presided over the event. Senior Officers from different divisions of BARC were present in the certificate-giving ceremony.

### Training on Online Software developed by BARC

A daylong training on *Online Software developed by BARC* was held on 03 October 2022 at BARC. The Computer and GIS Unit of BARC organized the training program. Dr. S M Bokhtiar, EC, BARC was present as the chief guest and Dr. Md. Baktear Hossain, Director, Manpower & Training was present as special guest of the program. Mr. Hasan Md. Hamidur Rahman, Director, Computer & GIS presided over the inaugural session of the program. Mr. Hasan Mahmud, Senior System Analyst, Computer & GIS delivered the welcome speech and briefed the program shortly. The inaugural session was followed by a technical session which was addressed by technical resource speakers from the Computer & GIS unit. Forty scientists/officers of



Dr. S M Bokhtiar, EC, BARC Delivering Speech

BARC attended the training program. Personnel of Computer & GIS unit has developed and has been maintaining several online applications for assisting BARC activities effectively and efficiently. Among the dozens of applications, the five most

important applications were showcased before all the trainees. The demonstrated applications are Crop Zoning Software, Climate Database, BARC Archive, Personal Data Sheet (PDS), and Agricultural Research Management Information System (ARMIS).

## Training on e-Filing

Training on e-Filing was held from 20-22 October 2022 at BARC computer training lab. The first two days of the training were organized for the officials of BARC. The training session conducted on the last day was for the staff of BARC. Computer and GIS Unit organized the training with BARC's resources. A total of 40 (forty) BARC scientists/officers attended the training in two batches and 20 (twenty) staff attended the training in a batch. Newly joined employees of BARC were given preference while selecting the training participants. The program was presided over by Mr. Hasan Md. Hamidur Rahman, Director (Computer & GIS). Dr. Md. Mosharraf Uddin Molla, Member Director (AERS) was present as the chief guest and inaugurated the training program. Mr. Hasan Mahmud, Senior System Analyst,



Training on e-Filing held on 20 December 2022

Computer & GIS delivered the welcome speech in the training. Director, (Computer & GIS), Principal Technical Officer, Senior System Analyst, and System Analyst of BARC attended as resource speakers and conducted the technical sessions. This training will help to develop the e-Filing skills of the participants to

ensure greater efficiency, transparency, accountability, and better service delivery in performing official tasks. It is mentioned worthy here that BARC has significant achievements in e-Filing in fulfilling its target under the annual performance agreement (APA).

## Field Testing and Result Validation of 'Khamari' Mobile App

At the end of all scheduled training programs, a national workshop on *Field testing and result validation of 'Khamari' mobile app* was held on 4 December 2022 at BARC. Dr. S M Bokhtiar, EC, BARC was present as chief guest, and Dr. Kristofer Dee Jonson, Environment, Forestry and Climate Change Consultant, FAO was present as guest of honor on behalf of Dr. Nur Ahmed Khondokar, Assistant FAO Representative (Program). The participants from BARC, DAE, BARI, BRRI, BJRI, BINA, BWMRI, SRDI, KGF), Institute of Water Modelling (IWM), Crop Zoning Project, and progressive farmers were present



Dr. S M Bokhtiar, EC, BARC Delivering Speech on 'Khamari' Mobile App

in the workshop. The total number of participants in the workshop was 62.

During the discussion session,

participants of the workshop provided many important feedbacks and suggestions related to the improvement of the crop

zoning system as well as implementation at the field level. The Executive Chairman and chief

guest of the workshop suggested taking initiative by the Computer & GIS unit of BARC for

mainstreaming the future updates and technological development of the CZIS and Khamari mobile app.

## Annual Workshop on Research Progress 2021-2022 and Research Program 2022-2023 of Bangladesh Livestock Research Institute (BLRI)

Livestock Division, BARC organized a two-day long annual review workshop on *Research progress 2021-2022 and Research Program 2022-2023* of Bangladesh Livestock Research Institute on 12-13 October 2022 at BARC Auditorium. The workshop was inaugurated by the chief guest Dr. Mian Sayeed Hassan, Member Director, Natural Resources Management Division, BARC, and Dr. Nazmun Nahar Karim, Member Director, Livestock Division, BARC chaired the inaugural session. The inaugural session started with the recitation of the holy Quran. Dr. Mohammad Rafiqul Islam, Chief Scientific Officer, Livestock Division, BARC welcomed the guest and participants to the Annual Review Workshop on Research Progress 2021-2022 and Research Program 2022-2023 of Bangladesh Livestock Research Institute (BLRI). Participants from different organizations like BLRI, DLS, FAO, CVH, CDIL, NIB, different universities, and other organizations participated in the workshop. The objectives of the workshop were to review the



*Inaugural session of the annual review workshop*

research progress 2021-22 and research program development in the field of health, production, biotechnology, and other areas. All divisional heads of BLRI presented research progress reports for the year 2021-22 and proposed research programs for the year 2022-23.

The workshop was concluded by the chief guest Dr. S M Bokhtiar, EC, BARC, and Dr. Nazmun Nahar Karim, Member Director, Livestock Division, BARC chaired the concluding session. Following the presentation, participants, professionals, and a panel of experts have given their

valuable comments, suggestions, and guidelines to align the research activities with national demand and priority, which were recorded. In the concluding session, the rapporteurs presented their report. Draft recommendations were taken in this session. At the end Member Director, Livestock, BARC concluded the annual workshop by giving thanks to the participants for their spontaneous contribution. Proceedings of the workshop have been sent to respective institutions.

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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