Special Conference on Agriculture, Safe Food and Environment

Organized by

Bangladesh Poribesh Andolon (BAPA),
Bangladesh Environment Network (BEN), and
Bangladesh Academy of Agriculture (BAAG)

8-9 January 2027 (Friday–Saturday)
Krishibid Institution Bangladesh (KIB), Khamarbari, Dhaka

1. Introduction

In recent decades, Bangladesh has achieved significant success in raising agricultural output, thus helping the country sustain a much larger population. However, the success has also led to many negative consequences for the environment, including its soil, water, and air. There are therefore now concerns about the sustainability of Bangladesh agriculture. Added to this have been rising concerns about safety of food, starting from its production and extending through its storage, transportation, marketing, and consumption.

Recognising the close relationship between agriculture, food safety and the environment, BAPA and BEN have decided to hold their 2027 annual conference on this theme, jointly with the Bangladesh Academy of Agriculture (BAAG), the national academy of distinguished agricultural scientists and professionals.

2. Recent changes in Bangladesh's agriculture and food system and their impact on environment

Agriculture and the food system in Bangladesh have witnessed in recent decades many changes that had significant consequences for the environment and food safety. Some of the important changes are as follows:

1. **Shifts in cropping systems:** The traditional Aus (Kharif 1) - Aman (Kharif 2) - Rabi rotation, suitable for Bangladesh's seasons, has given way to groundwater-dependent dry-season Boro rice, imparting to the country's agriculture a growing monoculture characteristic. The crop production rose but water tables have fallen in many areas; and pulses, oilseeds and other Rabi crops that supplied affordable protein, moderated soil acidity, and maintained soil fertility have declined.

2. **Rising use of agrochemicals:** Chemical fertiliser and pesticide use has reached alarming proportions, leaving harmful residues in soil and, by consequence, in food. The chemical run-off reaching open water bodies is harming the fish stock both directly and indirectly through eutrophication. The chemicalisation of agriculture is affecting groundwater too. It is often proving harmful for the health of the agricultural workers.
3. **Growth of industrial and caged livestock, poultry and fisheries:** Expansion of industrial and caged poultry, fisheries, and livestock has increased the supply of animal protein, but uncontrolled use of antibiotics and other chemicals threatens food safety and contributes to antimicrobial resistance through food, water, animals and the environment. Poorly managed waste from these production sites has become a new source of rural soil, water, and air pollution.
4. **Mechanisation and soil health:** Mechanisation has progressed, heralding a historical shift from pre-industrial to industrial agriculture. Mechanized tilling facilitates deeper ploughing, timely cultivation, higher productivity, and helps to overcome labor shortages. However, it is also threatening soil structure, and is reducing soil organic matter and micronutrients that are already declining due to chemicalisation of agriculture.
5. **Climate change, coastal area, haors, and agriculture:** While agriculture is affecting the environment, changes in environment caused by climate change are in turn affecting Bangladesh's agriculture. This feedback relationship is most pronounced in the coastal areas, where submergence, intrusion of saline

water, and perennial waterlogging are giving rise to major challenges to agriculture. Similar challenges are also evident in other areas, such as the Haor area, where early rains and floods are more frequently destroying Boro rice, the main and often the only crop grown in the area. Shifts in rainfall pattern are affecting Bangladesh's agriculture in other places too.

6. **Rivers and agriculture**: Upstream interventions and misguided river policies within the country have seriously affected the agriculture. Upstream dams and diversions on shared rivers have reduced dry-season flows, lowering irrigation water availability, accelerating siltation and salinity intrusion, and limiting groundwater recharge. Within the country, embankment-based *Cordon approach* to rivers has cut floodplains off from the water and silt that sustained their fertility, while impeding drainage, causing waterlogging. Equitable sharing of common rivers by co-riparian countries and an *Open approach* to river management are essential for the future of Bangladesh agriculture.
7. **Agriculture and environment of the hilly regions:** The environment of the hilly areas has probably been the greatest casualty of recent expansion of agriculture. The spread of plantation agriculture and indiscriminate application of plough-tilling have denuded hill slopes of tree cover and accelerated soil erosion and landslides. As a result, neighboring rivers and streams are getting filled up, obstructing drainage and causing floods and waterlogging.
8. **Agriculture and nutrition:** Agriculture development efforts have focused more on the caloric value of food produced, neglecting the importance of its nutritional value. This has led to neglect of crops that are important for nutrition and figured prominently in the Bangladesh's traditional cropping patterns.
9. **Food safety at the farm level and beyond:** Increased chemicalization of agriculture might have already made food less safe for health. However, food may also be contaminated during storage, transportation, processing, and marketing through misuse of formalin and ripening agents, unauthorised colours, adulteration, and unhygienic preparation and serving in prepared food outlets.
10. **Institutional changes and their implications for sustainability of agriculture and food safety:** Alongside the technological changes, agriculture in Bangladesh has witnessed profound institutional changes, including movement away from family-labor based, smallholder, subsistence agriculture to an agriculture geared towards market (including export) and based on hired labor of various types. These institutional changes have serious implications for the sustainability of agriculture and food safety.

3. Goal and objectives of the conference

Overall goal: The overall goal of the conference is to discuss the impact of the above noted changes in agriculture on environment and food safety and to come up with policy recommendations geared at promotion of environmentally sustainable agriculture and food safety. The conference will allow discussing the issues in an integrated, multidisciplinary framework, which is necessary in view of their interlinked nature. It will draw upon the expertise of a whole range of disciplines and sub-disciplines that pertain to these issues.

Specific objectives:

1. Allow presentation and discussion of research on above listed and other relevant issues.
2. Hear and discuss the experience of those waging struggle at the field-level against environmental harm caused by inappropriate agricultural practices and for ensuring food safety.
3. Hear and discuss the efforts that government and semi-government agencies, non-government development organizations, and other agencies and organisations are making to ensure sustainability of agriculture and food safety.
4. Formulate evidence-based policy recommendations for the government as well all those outside the government who are fighting for environmentally sustainable agriculture and food safety.

4. Call for papers

Papers are invited on the following topics:

1) Shifts in cropping systems and their consequences for the environment and food safety;
2) Increasing chemicalisation of agriculture and its impact on the environment and food safety;
3) Growth of industrial and caged livestock, poultry, and fisheries and impact on the environment and food safety;
4) Growing mechanization of agriculture and the consequences for the environment and food safety;
5) Climate change, upstream river interventions, domestic river policies and environmental sustainability of Bangladesh agriculture;
6) Environmental consequences of expansion of agriculture in the hilly areas;
7) Food safety at the farm level and beyond;
8) Importance of nutritionally balanced food production and consumption;
9) Institutional changes and their implications for sustainability of agriculture and food safety;
10) Role of agricultural and food research organizations in promoting sustainable agriculture and food safety;
11) Role of government and non-government agencies, political parties, and media in promoting sustainable agriculture and food safety;
12) Role of field level organizations of farmers, rural workers, environmentalists, conservationists in promoting sustainable agriculture and food safety;
13) Other related issues.

Timeline for papers

Date	Milestone
20 November 2026	Deadline for abstracts (up to 350 words)
25 November 2026	Notification of abstract acceptance and invitation to submit full papers
15 December 2026	Deadline for submission of full papers
30 December 2026	Final decision on presentation (oral or poster) and session allocation
8–9 January 2027	Conference at KIB, Khamarbari, Dhaka

Guidelines for abstracts

Abstracts should be in Microsoft Word, using Times Roman 12-point font size, and need to include (1) full title of the paper; (ii) full name of the author(s); (iii) author(s)' institutional affiliation(s); (iv) name of the corresponding author (in case of multiple authors) (v) and a maximum of three keywords. Instructions regarding the full papers will be sent later to the authors of the accepted abstracts. Both abstracts and full papers and all communications in their regard should be sent to the following:

For authors in Bangladesh

- Dr. Shahidul Islam, former Chair, Department of Geography, Dhaka University: E-mail: shahidul_bd@yahoo.com, or
- Dr. Shahrina Akhtar, Research Coordinator/Assistant Professor, Institute of Development Studies and Sustainability (IDSS), United International University. E-mail: shahrina.akhtar@gmail.com

For authors abroad

- Dr. Md. Khalequzzaman, Professor of Geology, Commonwealth University, USA: Email: mkhalequ@commonwealthu.edu

Poster presentation:

Young researchers will be able to make poster presentations at the conference. The above guidelines will apply for them too.

6. Participants

Expected participants include researchers and academics from universities and research institutes; Fellows of BAAG; officials from relevant ministries and agencies; development partners and NGOs; the private sector and agribusiness; farmers' organisations, grassroots activists and environmental movements; students and young researchers; members of the Bangladeshi diaspora through BEN; and the media.

7. Expected Outputs

The conference is expected to have the following outputs:

- *Conference abstract book*, with edited versions of the Abstracts of the papers selected for presentation at the conference;
- *Conference resolution*: A summary of the main informational and analytical points and recommendations emerging from the conference;
- *BAPA-BEN-BAAG Agenda for Action 2027***:** Policy Recommendations for a Safe, Sustainable and Just Agri-food System - a concise set of actionable recommendations, each linked to responsible institutions and timeframes, shared with relevant ministries, parliamentary committees and the media;
- *Thematic policy briefs* on priority issues drawn from the discussions of the conference;
- *Conference volume* containing the edited versions of the full papers that are found suitable by the editors for inclusion in it;
- A strengthened network linking researchers, policy makers, practitioners, grassroots movements and the diaspora on agriculture, safe food and environment; and
- Media and public outreach through press briefings, articles and social media in Bangla and English.

8. Organisation and Contacts

Conference committees: A Convening Committee and a Scientific Committee, comprising appropriate representatives from BAPA, BEN, and BAAG.

Contact: Alamgir Kabir, Member Secretary, Conference Convening Committee (Email: alamgir.bapa@gmail.com and phone: 01712-121221)

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