

**BAS-AASSA Symposium on
NATURE FOR SUSTAINABLE DEVELOPMENT**

07-08 October 2023

Organized by

Bangladesh Academy of Sciences (BAS)

and

Association of Academies and Societies of Sciences in Asia (AASSA)

Sponsored by

InterAcademy Partnership (IAP)

DRAFT PROGRAM

Hybrid

- In-Person at the National Science & Technology Complex, Agargaon, Dhaka, Bangladesh
- Webinar on Zoom Platform

07 OCTOBER 2023 SATURDAY

09.00-10.00 : INAUGURAL CEREMONY

Chairperson : Emeritus Prof Dr AK Azad Chowdhury

President, Bangladesh Academy of Sciences

: Telawat-e-Quran

: Address of Welcome by **Prof Dr Shariff Enamul Kabir**

Chair, Organizing Committee, BAS-AASSA Symposium on Nature for Sustainable Development

: Introduction of BAS activities by **Prof Dr Haseena Khan**

Secretary, Bangladesh Academy of Sciences

: Address by **Prof Dr Ahmet Nuri Yurdusev**

President, Association of Academies and Societies of Sciences in Asia (AASSA)

: Address by the Special Guest, **Mr Muhammad Munir Chowdhury**

Director General (Additional Secretary), National Museum of Science & Technology, Ministry of Science and Technology Government of the People's Republic of Bangladesh

: Address by the Special Guest, **Mr ABM Mokammel Hoque Chowdhury**

Managing Director, Union Bank Limited.

: Address by the Chief Guest, **Dr Dipu Moni, MP**

Honorable Minister, Ministry of Education, Government of the People's Republic of Bangladesh

: Address by the Chair, **Emeritus Prof Dr AK Azad Chowdhury**

President, Bangladesh Academy of Sciences

: Vote of thanks by **Prof Dr Yearul Kabir**

Co-Organizing Secretary, BAS-AASSA Symposium on Nature for Sustainable Development

10:00-10:40	: THEME LECTURE Nature for Sustainable Development	
<i>Chair</i>	: Prof Dr Mesbahuddin Ahmed <i>Chairperson, Bangladesh Accreditation Council, Govt of the People's Republic of Bangladesh</i>	
<i>Speaker</i>	: Prof Dr Zahurul Karim <i>Fellow and Senior Vice President, Bangladesh Academy of Sciences</i>	
10.40-11.00	: Refreshment	
11.00-13.50	: LECTURE SESSION I: LAND, SOIL, WATER AND BIODIVERSITY	
<i>Chairs</i>	: Prof Dr ZN Tahmida Begum (BAS) : Prof Dr Md Rafiqul Islam (BAU)	
11.00-11.30	: Keynote Presentation Prof Dr Richard Bell <i>Specialist in Soil Fertility and Land Management, University of Murdoch, Australia</i>	Novel approaches to enhance ecosystem services and food security in Bangladesh agriculture
11.30-11.50	: Prof Dr M Jahiruddin <i>Department of Soil Science, Bangladesh Agricultural University Mymensingh, Bangladesh</i>	Land and water management for sustainable agriculture in Bangladesh
11.50-12.10	: Dr Mariam Akhter <i>Deputy Chief Conservator of Forests Forest Department, Dhaka Bangladesh</i>	Conserve Biodiversity to Secure Sustainable Development in Bangladesh: A Review of ongoing initiatives
12.10-12.30	: Prof Dr Chowdhury Sarwar Jahan <i>Dept of Geology & Mining and Former Pro-Vice Chancellor University of Rajshahi, Bangladesh</i>	Water Governance and IWRM Practice in Dryland Barind, Bangladesh
12.30-12.50	: Prof Dr Md Sirajul Islam <i>Dept of Civil and Environmental Engineering (CEED), North South University, Dhaka, Bangladesh</i>	Challenges in Managing Water Resources in Bangladesh
12.50-13.10	: Dr Fatima Rukshana <i>Principal Scientific Officer River Research Institute, Faridpur Bangladesh</i>	Water Resources Crisis in Bangladesh: Pollution and Flow Scarcity
13.10-13.30	Dr Mohammed Mainuddin Principal Research Scientists and Team Leader, Water and Society Water Security Program, CSIRO Environment, Canberra, Australia	Sustainable groundwater management in the north-west region of Bangladesh
13.30-13.50	: Discussion	
13.50-14.30	: Lunch	

14:30-17:20	: LECTURE SESSION II: ENVIRONMENT	
<i>Chairs</i>	: Prof Dr Zahurul Karim (BAS)	
	Prof Dr Zeba Islam Seraj (BAS)	
14.30-15.00	: Keynote Presentation Prof Dr Saleemul Huq <i>International Centre for Climate Change and Development, Bangladesh</i>	Unravelling the Nexus: Local Political Economy and Rainwater Harvesting for Sustainable Urban Development at the Secondary City, Mongla, Bangladesh
15.00-15.20	: Prof Dr Kamrun Nahar <i>Dept of Agricultural Botany, Sher-e-Bangla Agricultural University</i> <i>Dhaka, Bangladesh</i>	Plant responses to metal toxicity and approaches for enhancing tolerance
15.20-15.40	: Prof Dr Kazi Matin Uddin Ahmed <i>Dept of Geology, University of Dhaka, Bangladesh</i>	Challenges of Groundwater Development in Bangladesh and Options for Sustainable Management
15.40-16.00	: Prof Dr Abdus Salam <i>Dept. of Chemistry, University of Dhaka, Bangladesh</i>	Chemical Characterization, Source Apportionment and Mitigation of the Atmospheric Pollution over Bangladesh
16.00-16.20	: Prof Dr Sharmind Neelormi <i>Dept of Economics, Jahangirnagar University, Savar, Dhaka, Bangladesh</i>	Food Security: An Unconventional Threat Induced by Climate Change- Insights from the Efforts Being Made in Bangladesh.
16.20-16.40	: Dr R Manimekalai <i>Biotechnology and Bioinformatics</i> <i>Sugarcane Breeding Institute</i> <i>Indian Council of Agricultural Research (ICAR), Coimbatore, Tamilnadu, India</i>	Research Advancements in Genomic Technologies towards Sustainable Energy for the Future
16.40-17.00	: Prof Dr Zeba I Seraj <i>Plant Biotechnology Laboratory, Department of Biochemistry and Molecular Biology, University of Dhaka, Dhaka, Bangladesh</i>	Paired growth of cultivated and halophytic wild rice under salt stress: a possible nature-based solution?
17.00-17.20	: Discussion	
17.20-17.50	: Prayer & Refreshment	
17.50-19.00	: PANEL DISCUSSION ON ROLE OF THE NATIONAL ACADEMIES OF SCIENCES FOR PROMOTING SUSTAINABLE DEVELOPMENT OF NATURE	
Chair and Moderator	: Prof Dr M Shamsheer Ali (BAS)	
Panelists	: Representative from BAS, Delegates from various countries and others (TBD)	
19.00-22.00	: Symposium Dinner	

08 OCTOBER 2023 SUNDAY

09.00-11.30	: LECTURE SESSION III: RENEWABLE ENERGY	
Chair	: Prof Dr M Feroze Ahmed (BAS)	
09.00-09.30	: Keynote Presentation Dr M Fouzul Kabir Khan <i>Former Secretary, Power Division & Founder CEO, IDCOL, Dhaka, Bangladesh</i>	Challenges of Development of Green and Sustainable Energy
9.30-9.50	Ms. Kate Nairn Program Manager Future Earth Australia, Australia	Holistic Sustainable Development (Recorded Lecture)
09.50-10.10	: Dr Md Ayub Hossain <i>Former Director, Bangladesh Agricultural Research Institute Gazipur, Bangladesh</i>	Solar Pump Irrigation in Bangladesh: A Sustainable Solution to Mitigate Energy Crisis
10.10-10.30	: Prof Dr Monjurul Alam <i>Dept of Farm Power and Machinery, Bangladesh Agricultural University, Mymensingh, Bangladesh</i>	Judicial use of biogenic residues for sustainable development: Role of renewable energy
10.30-10.50	Mr Sohel Ahmed <i>Managing Director, Grameen Shakti</i>	Grameen Shakti: clean energy for sustainable social development
10.50-11.10	: Discussion	
11.10-11.30	: Refreshment	
11.30-13.15	: LECTURE SESSION IV: NATURAL PRODUCTS	
Chairs	: Prof Dr Md Tofazzal Islam (BAS) Dr Mubarak Ahmed Khan (BAS)	
11.30-12.00	: Keynote Presentation Prof Dr Lingadahalli Subrahmanya Shashidhara <i>Director, National Centre for Biological Sciences, Bengaluru, India</i>	Innovation for Green Economy
12.00-12.20	: Prof Dr Md Abdur Rashid <i>Dept of Pharmaceutical Chemistry Faculty of Pharmacy, University of Dhaka, and Bangladesh Academy of Sciences</i>	Multidrug Resistant Antibacterial and HIV-inhibitory Compounds from Medicinal Plants, Microbes and Marine Organisms
12.20-12.40	: Dr Shaikh Mohammad Bokhtiar <i>Executive Chairman, Bangladesh Agricultural Research Council, Dhaka, Bangladesh</i>	Food Security in Bangladesh
12.40-13.00	: Dr Takeshi Zendo <i>Dept of Bioscience and Biotechnology, Kyushu University, Fukuoka, Japan</i>	Characterization and applications of bacteriocins produced by lactic acid bacteria
13.00-13.15	: Discussion	

- 13.15-14.30 : **Prayer and Lunch**
- 14.30-16.10** : **LECTURE SESSION IV CONTINUED**
- 14.30-14.50 : **Prof Zabta Khan Shinwari**
*Quaid-i-Azam University, Islamabad
Pakistan* Potential Dual Impact of Frontiers
Technology on Nature for Sustainable
Development Biodiversity Conservation
- 14.50-15.10 : **Prof Dr Mohammad Nazir Hossain**
*Dept of Genetic Engineering & Biotechnology,
Bangabandhu Sheikh Mujibur Rahman,
Maritime University, Bangladesh* Marine Natural Products: Prospects and
Challenges of new drug discovery in
Bangladesh
- 15.10-15.30 : **Dr Syed Nurul Alam**
*CIMMYT; Former Director, Bangladesh
Agricultural Research Institute, Bangladesh* Judicial Use of Nature for Sustainable Pest
Management
- 15.30-15.50 : **Dr Masfida Akhter**
*Hamdard Institute of Traditional Medicine &
Natural Product Research, Hamdard
University, Munshiganj* Traditional medicine in Bangladesh:
prospects and challenges
- 15.50-16.10** : **Discussion**
- 16.10-16.30** : **Light Refreshment**
- 16.30-17.30** : **DRAFT RECOMMENDATIONS, OPEN DISCUSSION & CONCLUDING SESSION**
- Chairperson** : **Emeritus Prof Dr AK Azad Chowdhury**
President, Bangladesh Academy of Sciences
- Chief Guest** : **Mr Saber Hossain Chowdhury, MP**
*Chairperson, Parliamentary Committee on Environment, Govt of the People's Republic
of Bangladesh*
- OPEN DISCUSSION**
- Moderator: Prof Dr Liaquat Ali**
Organizing Secretary, BAS-IAP-AASSA Symposium on Nature for Sustainable Developme
- Remarks by **Prof Dr Zahurul Karim**
*Chair, Program Committee BAS-IAP-AASSA Symposium on Nature for Sustainable
Development*
- Remarks by **Prof Dr Shariff Enamul Kabir**
*Chair, Organizing Committee BAS-IAP-AASSA Symposium on Nature for Sustainable
Development*
- Remarks by **Prof Dr Mesbahuddin Ahmed**
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- Remarks by **Prof Dr Ahmet Nuri Yurdusev**
President, Association of Academies and Societies of Sciences in Asia (AASSA)
- Address by the Chief Guest **Mr Saber Hossain Chowdhury, MP**
*Chairperson, Parliamentary Committee on Environment, Govt of the People's Republic
of Bangladesh*
- Concluding Remarks by the Chair, **Emeritus Prof Dr AK Azad Chowdhury**
President, Bangladesh Academy of Sciences