#### **INTERNATIONAL SYMPOSIUM**

ON

## Healthy Mangroves and Sustainable Fisheries for Climate Resilient Coastal Community in South Asia

#### 01-03 March, 2023

Khulna University, Khulna, Bangladesh

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Field trip at IMA center and BANOJIBI, Dacope, Khulna, Bangladesh

Organized by

Fisheries and Marine Resource Technology Discipline, Khulna University

Bangladesh Environment and Development Society (BEDS)

**Global Nature Fund (GNF)** 

Sponsors

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### SYMPOSIUM SESSIONS

#### Day 1:

- Session 1: Food security, coastal aquaculture and tidal forest nexus
- Session 2: Sustainable aquaculture and fisheries in South Asia
- Session 3: Panel discussion on ecosystem approach linking coastal livelihoods and biodiversity conservation
- Poster Session

#### Day 2:

- Poster Session
- Session 1: Vulnerability context and coping strategy of coastal community against climate change
- Session 2: Inclusive and equitable market and value chains development
- Session 3: Panel discussion on policy options for climate resilient coastal food system in South Asia







# **PROGRAM SCHEDULE**

DAY 1 01	March 2023	
08:45 - 09:30	REGISTRATION	
Inaugural Session		
	National anthem of Bangladesh	
	Welcome address:	
	<b>Prof. Dr. Muhammad Abdur Rouf</b> Fisheries and Marine Resource Technology Discipline, Khulna University	
	Address by the Special Guests:	
09:30 - 10:45	<b>Prof. Dr. Abul Kalam Azad</b> Dean, Life Science School, Khulna University	
	<b>Md Jahidul Kabir</b> Deputy Chief Conservator of Forests, Bangladesh Forest Department, Ministry of Environment, Forest and Climate Change The People's Republic of Bangladesh	
	Kh. Mahbubul Haque Director General, Department of Fisheries, Ministry of Fisheries and Livestock The People's Republic of Bangladesh	
	Address by the Chief Guest:	
	<b>Prof. Dr. Mahmood Hossain</b> Honorable Vice-chancellor, Khulna University	
	SYMPOSIUM KEYNOTE SPEECH:	
	Caring about Mangrove Ecosystem Health is Caring about People	
	Norman C Duke James Cook University TropWATER Centre, Queensland, Australia	
	Speech by the Symposium Chair:	
	<b>Prof. Dr. Md. Golam Sarower</b> Fisheries and Marine Resource Technology Discipline, Khulna University	
10:45 - 11:30	TEA BREAK	
Scientific Session 1: Food security, coastal aquaculture and tidal forest nexus		







<b>Chair:</b> Dr. Dilip Kumar Datta Environmental Science Discipline, Khulna University		<b>Co-Chair:</b> Stefan Hollar Naturland, Germany		
	Plenary Lecture         Coastal Aquaculture and Mangrove Forest Nexus: State of Affairs and Future         Research Needs         Dr. Nazmul Ahsan         Fisheries and Marine Resource Technology Discipline, Khulna University			
	Con	tributed Papers		
	The Association for Food Biodiversity	Ralph Dejas	Global Nature Fund, Germany	
11:30 - 13:00	Phytoplankton Community Dynamics and their Environmental Drivers in ar Estuarine Mangrove Forest, Sundarbans, Bangladesh		Dept. of Oceanography and Hydrography, Bangabandhu Sheikh Mujibur Rahman Maritime University	
	Contribution of Fine Root in Carbon Dynamics of the Sundarbans Mangrove Ecosystems, Bangladesh	Dr. Md. Kamruzzaman	Forestry and Wood Technology Discipline, Khulna University	
	Potential Toxicity of Pesticides and it Transformation Products to Aquatic Organisms	s Dr. Md. Golam Sarower	Fisheries and Marine Resource Technology Discipline, Khulna University	
	Plastic Pollution Affects Courtship Behavior, Phenotypes and Enzymatic Activities of Male Guppy ( <i>Poecilia</i> <i>reticulata</i> )	Dr. Sheikh Mustafizur Rahman	Fisheries and Marine Resource Technology Discipline, Khulna University	
	Biodiversity- The New Core Area of the Development Cooperation between Bangladesh and Germany	Dr. Stefan Alfred Groenewold	GIZ, Dhaka, Bangladesh	
13:00 - 14:00	LUNCH BREAK			
Scientific Session 2: Sustainable aquaculture and fisheries in South Asia				







<b>Chair:</b> Dr. Jayati Chourey Executive Director, SaciWaters, India		<b>Co-Chair:</b> Dr. Muhammad Abdur Rouf FMRT Discipline, Khulna University		
	Plenary Lecture         Effect of Dietary Lysine Deficiency on Nile Tilapia Oreochromis niloticus Production in         Fertilized Ponds         Dr. Marc Verdegem         Wageningen University and Research, Netherlands			
	Contributed Papers			
14:00 -15:30	Synergistic Effects of Mangrove Leaf Litter and Supplemental Feed on Water Quality, Growth and Survival of Shrimp ( <i>Penaeus monodon</i> , Fabricius, 1798) Postlarvae	Dr. Md. Iftakharul Alam	Department of Fisheries, Ministry of Fisheries and Livestock, The People's Republic of Bangladesh	
	Effect of Indigenous Probiotics on Vibrio Propagation and Digestive Enzyme Activity in Black Tiger Shrimp (Penaeus monodon)	H M Rakibul Islam	Shrimp Research Station, Bangladesh Fisheries Research Institute	
	GLOBAL G.A.P. Aquaculture Standard Certifying Safe and Responsible Farming around the World	l: Dr. Pham Viet Anh	GLOBALG.A.P. Germany	
	Culture of Orange Mud Crab Scylla olivacea (Herbst, 1896): Effect of Sex Ratio and Seasons on Growth, Survival and Intactness	Dr. Md. Latiful Islam	Brackishwater Station, Bangladesh Fisheries Research Institute	
	Mud Crab Fisheries in the Sundarbar Mangrove Forest of Bangladesh: Emphasis on Crab Habitat Distribution and Fishing Pattern	s Dr. Md. Sherazul Islam	Department of Fisheries and Marine Bioscience, Jashore University of Science and Technology	
	Sustainable Aquaculture in Mangrov Ecosystem (SAIME) in Transboundary Sundarbans: A Climate Adaptive, Ecosystem-Based Approach Ensuring Livelihood Security of Coastal Communities	Rainh Deias	Global Nature Fund, Germany	







15:30 – 16:30	Scientific Session 3: Panel discussion on ecosystem approach linking coastal livelihoods and biodiversity conservation Moderator: Panchanon Kumar Dhali, GIZ, Dhaka, Bangladesh		
16:30 – 17:30	Poster SessionChair: Dr. Khandaker Anisul Huq Fisheries and Marine Resource Technology Discipline, Khulna UniversityCo- Chair: Dr. Md. Sherazul Islam Department of Fisheries and Marine Bioscience, Jashore University of Science and Technology		







DAY 2 02 March 2023

	Poster Session				
09:00 – 10:30	<b>Chair:</b> Dr. Khandaker Anisul Huq Fisheries and Marine Resource Technology Discipline, Khulna Univer	Department of F		1d. Sherazul Islam Fisheries and Marine nore University of Science	
10:30 - 11:00		TEA B	BREAK		
Scientific Session 1: Vulnerability context and coping strategy of coastal community against climate change					
<b>Chair:</b> Dr. Stefa GIZ, Dhaka, Ban	n Alfred Groenewold Igladesh	<b>Co-Chair:</b> Dr. Masagus Muhammad Prima Putra Universitas Gadjah Mada, Indonesia			
	Plenary Lecture				
	Is Tidal River Management a Viable Tool for Climate Resilience in The Lower Bengal Delta? <b>Dr. Dilip Kumar Datta</b> Environmental Science Discipline, Khulna University				
	Contributed Papers				
11:00 – 13:00	The Changes in Land Use/Land Cover during Post-polderization Period and its Impact on Occupational and Socia Structure in a <i>Poldered</i> Ecosystem in the Lower Bengal Delta, Bangladesh	l Dr. al Ra	. Md Mujibor hman	Environmental Science Discipline, Khulna University, Bangladesh	
	Multi-stakeholder Approach for Promoting Locally-led Adaptations Practices and Sustainable Livelihood Options for Improving the Resilience of the Coastal Communities in South Asia: Approaches for Bangladesh	SO Ra	urav Bagchi tul	Bangladesh Environment Development Society (BEDS), Nirala R/A, Khulna, Bangladesh	







	Research for Development of science to improve livelihoods in the Bangladesh Sundarbans: How can we use?	Dr. Nora N. Devoe	Australian Center for International Agriculture Research
	The Mangrove's Afforestation Contributes an Integrated Adaptation Solution Implemented by Friendship Provides Sustainable Impact towards Climate Resilience in Bangladesh	Kazi Amdadul Hoque	Friendship NGO Dhaka- 1212, Bangladesh
	One Tree Planted Journey towards a Climate resilient Shoreline	Dr. Samaddrita Roy	One Tree Planted, Asia Pacific
	Aquaculture Initiation Towards Women Empowerment	Dr. Devadhason Vincent	CReNIEO, Tamil Nadu, India.
	Empowering the Next Generation: The Impact of the Bangladeshi Youth- Led Climate Movement on Coastal Communities	Sohanur Rahman	YouthNet for Climate Justice, Barishal
	Coastal and Marine Resources Management Issues and Capacity Development Needs for the Possible Adoption of Coastal and Marine Spatial Planning (CMSP) – Scenarios from Bangladesh and Thailand	Dr. Muhammad Abdur Rouf	Fisheries and Marine Resource Technology Discipline, Khulna University
	What mangrove ecosystems offer to climate change mitigation: A case study in Berau, East Kalimantan	Dr. Adi Gangga	Yayasan Konservasi Alam Nusantara, Jakarta, Indonesia
13:00 -14:00	LUNCH BREAK		







Scientific Session 2: Inclusive and equitable market and value chains development				
<b>Chair:</b> Ajanta Dey Nature Environment and Wildlife Society, India		<b>Co-Chair:</b> Thies Geertz Global Nature Fund, Germany		
14:00 – 15:30	Plenary Lecture Climate Smart Artemia Pond Cultur Dr. Muhammad Meezanur Rahma WorldFish, Dhaka, Bangladesh Concept of Ecovillage through Community-Based Ecotourism: A Conceptual Framework The Trial and Error of Mangrove Plantation in a Reclaimed Land Screening of Potential Lactic Acid Bacteria Which Produced Antibacterial Substance for Future	Anusree Ghosh Dr. Masagus Muhammad Prima		
	Application on Fermented Fish Product Health Benefits of <i>Sonneratia apete</i> (BuchHam.) Fruit		kh Julfikar	Biotechnology and Genetic Engineering Discipline, Khulna University
	Mangrove Ecosystem Services and Gender Relation among the Sundarbans Dependent Communit in the Coastal Polders of Banglades		ddin	Solidaridad Network Asia, Bangladesh.
	Ethnopharmacological Evaluation of Sundarban Plants: A Treasure of Natural Bioactive Molecules	f Dr. Shai Uddin	kh Jamal	Pharmacy Discipline, Khulna University
	Maggot Meal as a Potential Substitute of Fish Meal Ingredient Practical Diets of Rainbow Trout, Oncorhynchus mykiss		Shah Alam	Bangladesh Open University, Bangladesh







	Scientific Session 3: Panel Discussion on policy options for climate resilient coastal food system in South Asia
15:30 - 16:30	<b>Moderator:</b> Prof. Md. Nazmul Ahsan, Fisheries and Marine resource Technology Discipline, Khulna University
	Closing session
	Recap and reflection
	Best poster award
	Appreciation to the session chairs
	Speech by the Special Guest
	Md. Amir Hosain Chowdhury
	Chief Conservator of Forests, Bangladesh Forest Department
	Ministry of Environment, Forest and Climate Change
	The People's Republic of Bangladesh
	Speech by the Chief Guest
	Prof. Dr. Mahmood Hossain
16:30 - 17:30	Honorable Vice-chancellor, Khulna University, Khulna
	Vote of Thanks
	Md. Maksudur Rahman
	Chief Executive, Bangladesh Environment and Development Society (BEDS)
	Closing Speech by the Symposium Chair
	<b>Prof. Dr. Md. Golam Sarower</b> Fisheries and Marine Resource Technology Discipline, Khulna University