

The Kolkata Mangrove Dialogue

In search of sustainable coping strategies for
freshwater & waste plastic management in the Indian Sundarbans

27th February, 2020



A Symposium organised by



Department of Geography & IQAC
Dum Dum Motijheel Rabindra Mahavidyalaya
(Affiliated under West Bengal State University)

&

soceo

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BACKGROUND

Mangroves are unique and indispensable to the ecosystem of the Sundarbans. Habitats for large and diverse flora and fauna they also form vital carbon sinks helping to contain the effects of climate change. In spite of their importance, the mangrove ecosystems worldwide are under stress and the same is also true for the Sundarbans. Against this backdrop, Soceo, an Indo-German organisation working in the areas of social innovation and entrepreneurship, and Prasanta Chandra Mahalanabis Mahavidyalaya of West Bengal State University collaborated to organise the a-day symposium on the Mangrove Ecosystem of the Sundarbans in January 2019. In this symposium leading experts on the Sundarbans from several universities and other organisations took part, shared their knowledge and engaged in dialogues in order to look for a coping mechanism to save the ecosystem. In continuation with the initiative of the previous year, the next one-day symposium will take place on 27th February 2020 in Kolkata. The symposium will host distinguished keynote speakers and will be attended by research scholars from relevant fields. Dum Dum Motijheel Rabindra Mahavidyalaya of West Bengal State University and Soceo have collaborated this time to organize the symposium.

OBJECTIVES OF THE CURRENT SYMPOSIUM

Since the invention of plastic, the production and consumption have increased constantly all over the world. An alarmingly large proportion of this plastic has ended up in landfill or reached our oceans as waste. An impending danger of plastic waste playing havoc to normal ecosystem functions in global scale, evident from numerous researches. The Sundarbans with its river besieged and river mouth existence is highly vulnerable to plastic waste pollution on the land and in the water. The burgeoning urbanisation and the tourism activities have important role in determining the influx of plastic items and resultant plastic waste inside the area. Furthermore, the islands are bordered on the south by the Bay of Bengal, the factor that may transform unmanaged waste plastics quickly into ocean plastics. The current symposium intends to create a dialogue on this topic involving leading researchers in the field with a view to identifying sustainable coping strategies.

The Sundarbans, an archipelago of 102 islands, spread across India and Bangladesh, is crisscrossed by a complex network of rivers, rivulets and creeks. In the monsoon months the area receives substantial amount of precipitation. However, fresh water is a scarce resource in the Sundarbans due to several reasons including the brackish estuarine nature of its water channels. High salinity is also measured in the ground water in several parts of the Sundarbans along with arsenic contamination. The Indian part of the Sundarbans is home for approximately 4.5 million human beings. Research shows that the fresh water needs of the large population of the Sundarbans can be met through number of options such as, rainwater harvesting, desalination of groundwater, improvement of ailing water channels, et cetera. The symposium aims at facilitating a dialogue on this topic involving leading researchers with a view to identifying sustainable coping strategies.



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Chief Patron

- * Prof. Basab Chowdhury
[Honourable Vice Chancellor, West Bengal State University]

Patron

- * Dr. Sandip Dasgupta
[Principal, Dum Dum Motijheel Rabindra Mahavidyalaya]

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- * Convener: Sujoy Chatterjee [Managing Director, SOCEO]
- * Jt. Convener: Dr. Suchita Dutta [Lecturer, Department of Geography]
Dr. Sarmistha Roy Chowdhury [Assistant Professor, Head,
Department of Geography]

Organising Secretary / Co-ordinator

- * Dr. Sabitri Dutta [Co-ordinator, IQAC / Assistant Professor, Department
of Economics]

Organising Jt. Co-ordinators

- * Ms. Sangeeta Chowdhury [Lecturer, Department of Geography]
- * Ms. Kaushani Banerjee Bhaduri [Lecturer, Department of Geography]
- * Ms. Dipasree Roy [Lecturer, Department of English]
- * Ms. Swatilekha Halder [Assistant Professor, Department of Economics]
- * Ms. Somali Roy Chakrobarty [Lecturer, Department of Geography]



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SOCEO Consulting Services Private Limited

Mangroves are unique and indispensable to the ecosystem of the Sundarbans. Habitats for large and diverse flora and fauna they also form vital carbon sinks helping to contain the effects of climate change. In spite of their importance, the mangrove ecosystems worldwide are under stress and the same is also true for the Sundarbans. Department of Geography and IQAC cell of *Dum Dum Motijheel Rabindra Mahavidyalaya of West Bengal State University* and *Soceo* an **Indo-German organisation** working in the areas of social innovation and entrepreneurship, had collaborated to organize the symposium on **27th February 2020 at Dum Dum Motijheel Rabindra Mahavidyalaya** in Kolkata.

Since the invention of plastic, the production and consumption have increased constantly all over the world. An alarmingly large proportion of this plastic has ended up in landfill or reached our oceans as waste. An impending danger of plastic waste playing havoc to normal ecosystem functions in global scale, evident from numerous researches. The Sundarbans with its river besieged and river mouth existence is highly vulnerable to plastic waste pollution on the land and in the water. The burgeoning urbanisation and the tourism activities have important role in determining the influx of plastic items and resultant plastic waste inside the area. Furthermore, the islands are bordered on the south by the Bay of Bengal, the factor that may transform unmanaged waste plastics quickly into ocean plastics. The symposium intended to create a dialogue on this topic involving leading researchers in the field with a view to identifying sustainable coping strategies.

The welcome address was given by Dr. Suchita Dutta, Department of Geography, who talked about the theme of the symposium and importance of mangrove of maintaining the balance of the ecosystem. The members present on the dias were Prof. Sandip DasGupta, Principal, DDMRM, Prof. Basab Chowdhury Honourable VC, West Bengal state University, Dr. Sabitri Dutta, IQAC Co-ordinator, DDMRM, Mr. Sujit Choudhuri, President DDMRM. and Juergen Thomas Schord, Deputy Consul General of the Federal Republic of Germany, Kolkata.

The symposium will host distinguished keynote speakers and will be attended by research scholars from relevant fields. Resource person have highlighted in two ways of investing our planet, to safeguard the natural resources like water for its future sustainability and enlightened us about the role of waste plastic in our environment and it's impact on bio-diversity.

In the first half of the symposium, Prof. (Dr.) Pradip K. Sikdar of Indian Institute of Social Welfare and Business Management, has enlightened on Improving Fresh Water Provision based on wise use of Groundwater resources for livelihood resilience in the Indian Sundarbans and Dr. Tuhin Bhadra, Assistant Professor of Department of Geography of Adamas University has focused on Freshwater Availability and Demand in Sundarbans Biosphere Reserve, India.

In the second half, Dr. Mahua Saha (Ph.D.) Senior Scientist (Headquarters, Goa) of Department of Chemical Oceanography (COD), CSIR – National Institute of Oceanography (NIO) has advocate his ideas on Microplastics pollution marine environment- Abundance, sources, impacts on biodiversity and mitigation. Last but not the least, Prof. (Dr.) Shantanu Bhowmik, Head: Research and Projects, School of Engineering, Coimbatore, Professor, Aerospace School of Engineering, Coimbatore enriched us with an insightful session on Recycle technology of plastic waste to plastic composite product: To save environment and ecological balance.

All the resource persons also interacted with the research scholars, faculty of different institutes and also representatives of different NGOs of Indian Sunderbans and entertained their questions by providing them solutions to be a partner in the conservation of planate.

The vote of thanks was delivered by Dr. Sarmistha Roy Choudhury. The program ended at 5pm.

Photographs of the event

a symposium
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Department of Geography & IQAC
Dum Dum Mohanrao Rabindra Mahavidyalaya
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Jürgen Thomas Schrod
Deputy Consul General
Consulate General of Germany in Kolkata



Prof. Basab Chowdhury
Honourable Vice Chancellor,
West Bengal State University



Prof. Dr. Pradip K. Sikdar
Professor, Indian Institute of Social Welfare
and Business Management, Kolkata



Dr. Tuhin Badra
Assistant Professor,
Department of Geography,
Adamas University, Kolkata



Dr. Mahua Saha
Senior Scientist
Department of Chemical Oceanography
CSIR - National Institute of
Oceanography, GOA



Prof. Dr. Shantanu Bhowmik
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