

HIGHLIGHTS OF THE NATIONAL SYMPOSIUM

“Building synergies for healthy mangroves and robust value chains around the mangrove ecosystem ensuring thriving coastal communities in Sundarbans: Instrumenting collaborative network for co-creation”

Day 1: Field visit to Chaital SAIME (Sustainable Aquaculture in Mangrove Ecosystem) site – Minakhan Block, North 24 Parganas, West Bengal, India

Date: 25th July, 2023

Time: 01.00 PM – 07.00 PM IST

SaciWaters (South Asia Consortium for Interdisciplinary Water Resources Studies) has been represented at the National Symposium by Dr. Jayati Chourey, Executive Director; Mr. Kanna K. Siripurapu, Sr. Research Fellow; and Mr. Aluri Sai Vardhan, Research Associate. The SaciWaters team visited the Chaital SAIME (Sustainable Aquaculture in Mangrove Ecosystem) site in Minakhan Block, North 24 Parganas, West Bengal, India.

The implementation of the SAIME Project got flagged off in 2019 and was anchored by the NEWS NGO. The Nature Environment and Wildlife Society (NEWS), an NGO dedicated to conservation, was established in 1991 and is based in Kolkata, West Bengal, India. The primary objective of the organization is the conservation of the ecology, environment, wildlife, and natural resources for an improved environment.



Figure 1: Satellite Imagery of the Chaital SAIME Project Sites

The SAIME (Sustainable Aquaculture in Mangrove Ecosystem) project has been implemented in India and Bangladesh in collaboration with the Global Nature Fund (GNF) in consortium with Naturland, Germany, and Bangladesh Environment & Development Society (BEDS), Bangladesh. This project also aims to bring a modification to the shrimp trade by bringing a transformative change in the existing value chain through the dialogue exchange model. To restore mangroves and augment the livelihood of coastal communities, an ecosystem-based sustainable aquaculture model integrating mangroves has been initiated.



Figure 2: Promotional Flyer regarding the SAIME Project

The official of the NEWS NGO gave an overview of the SAIME project's implementation, which aims to build an integrated aquaculture and mangrove ecosystem. As part of the process, farms and farmers were chosen, groups of farmers were formed, and 42 farmers signed over 42 farm assets for this initiative; they are all private entities. The data on various parameters was obtained from the farmers, capacities were developed, and then mangrove species were selected based on growth rates and species availability. Followed up by the landscaping of the farm, which includes building bunds, installing fencing, and planting mangroves. Farmers offered 50% of the project's funding, and SAIME funding supported the remaining 50%.



Figure 3: Chaital SAIME Project Site - Aquaculture Ponds

Also mentioned were the variations in implementation and outcomes from farmer to farmer, the usage of diesel water pumps for procuring water from rivers, the depth of the aquaculture ponds, and the variations in water quality and salinity throughout the year.

Following are statements regarding the SAIME central nursery, which is based in Sundarbans, West Bengal, India, and includes 18 varieties of mangrove species, and the inputs that are considered for this project. Finally, stated regarding the various benefits that are attained by ensuring an integrated mangrove and aquaculture ecosystem in the case location, it has many positive effects, some of which were unexpected.



Figure 4: The Aquaculture Pond's Bund is Surrounded with the Mangrove Plantation

A formal interactive session held with the invited speakers after the field visit discussed the significance of mangroves in the Sundarbans, the impact of anthropogenic activities on the mangroves of the Sundarbans, scientific approaches, and community contributions that are required for sustainable management and conservation of mangroves. Finally, the speakers shared insights regarding poultry and aquaculture integration, ornamental fish culture, the acquisition of traditional knowledge, and eco-tourism.



Figure 5: Presence of Molluscs on the Bund

Day 2: Mangrove Restoration and Rehabilitation in Indian Sundarbans

Venue: Eastern Court, ITC Royal Bengal, Kolkata, West Bengal, India

Date: 26th July, 2023

Time: 10.00 AM – 06.30 PM IST

The inaugural program was carried out in a collaborative manner with the Government of West Bengal and the Department of Forests and was subsequently followed up with three technical sessions from the invited speakers and interactive discussions. The invited speakers delivered presentations during the technical session on the assigned topics and exchanged exceptionally rich information on the “Mangroves Restoration and Rehabilitation in Indian Sundarbans” theme.



Figure 6: The Entryway to the National Symposium



Figure 7: Inaugural program at the National Symposium

On common ground, the invited speakers presented information regarding the importance of mangrove forests as a unique ecosystem, detailed information on major threats, the impact of climate change and extensive anthropogenic activities, spatial and temporal changes, floral and faunal diversity present in mangrove forests of India, the crucial role played by the Sundarbans, ecosystem services offered by the mangroves, the monetary value of the Sundarbans, and the annual financial output of the Sundarbans (blue economy).

Highlighted the creation of a platform to ensure enhanced support, stakeholders' participation, and contributions from various organizations. Designing and standardizing the sustainable development and mangrove conservation plan in the Sundarbans Biosphere Reserve (SBR) to ensure long-term goals and attain generational benefits. Extensive research and capacity-building initiatives are required to address various challenges.

Expressed regarding the MISHTI scheme, various regulatory measures, gaps in the conservation of mangroves, and the implementation mechanism of the government initiatives. It also stated that mangroves are considered an optimal solution for investing in nature-based solutions for coastal resilience and the importance of CBEMR (Community Based Ecological Mangroves Restoration) for restoration, conservation, and management of bioshields of Bengal, also called the Sundarbans.

Mr. Kanna K. Siripurapu, Sr. Research Fellow at SasiWaters, had the opportunity for an official declaration of the All India Mangrove Alliance for Climate and Conservation (AIMACC), an informal consortium of practitioners, civil society organizations, grassroots organizations, researchers, social enterprises, enterprises, and think tanks associated with conservation of biodiversity, mangroves, coastal wetland habitats, sustainable economic development of coastal areas, local livelihoods, and climate change on the eastern Indian coast of India. The informal consortium was formally conceived on January 17, 2023.



Figure 8: A Formal Declaration of AIMACC by Mr. Kanna K. Siripurapu



Figure 9: The esteemed Founding Members and Mentors officially unveiled the AIMACC

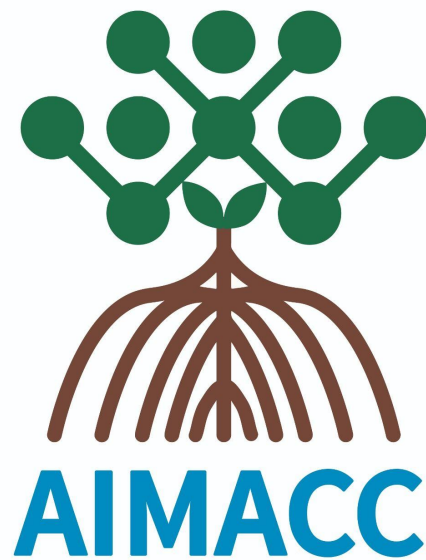


Figure 10: The logo of AIMACC

Finally, emphasis has been placed on the significance of activities such as, community-based tourism, mangrove conservation initiatives, and documentation of traditional knowledge.

Day III: Sustainable Aquaculture in Mangrove Ecosystem

Venue: Eastern Court, ITC Royal Bengal, Kolkata, West Bengal, India

Date: 27th July, 2023

Time: 10.00 AM – 06.00 PM IST

Commenced with a keynote speech, later followed up by four technical sessions with presentations from the invited speakers and interactive discussions. During the technical session, the invited speakers delivered presentations on the assigned topics and exchanged tremendously detailed information on the theme of "Sustainable Aquaculture in Mangrove Ecosystem."

The invited speakers presented information regarding the importance of an integrated mangrove and aquaculture ecosystem with long-term planning and sustainable approaches and highlighted the Sustainable Development Plan for Sunderbans with climate change mitigation strategies.

The value addition of NTFPs, conservation of culture fisheries, ecological imbalance created in the mangrove ecosystem by anthropogenic activities, payment for ecosystem services (PES), potentiality of ecotourism in the Sundarbans, the Central Institute of Brackishwater Aquaculture (CIBA), and the Agricultural and Processed Food Products Export Development Authority (APEDA) are the topics covered accordingly.

It was expressed that the integrated mangrove and aquaculture ecosystem enhanced the water quality index and decreased the mortality of the shrimp at the SAIME project sites. Also mentioned were the supply chain issues in the aquaculture practices and the disease outbreak in the aquaculture ponds.

At last, emphasis was placed on the involvement of women and Self-Help Groups (SHGs), institutional integration into mainstream technical and policy interventions for mangrove conservation, resource mobilization, ensuring income generation by creating dependency on the mangroves, geospatial mapping, and monitoring of the initiatives on mangrove conservation.

WAY FORWARD

HEALTHY MANGROVES + RESILIENT COASTS = WEALTHY & SUSTAINABLE COASTS
