



ANNUAL REPORT 2023-24

East Kolkata Wetlands Management Authority
Department of Environment, Govt of West Bengal



অবিকৃত রাখুন!

সংরক্ষিত থাক জলাভূমি
সুরক্ষিত থাক জীবন।



দণ্ডনীয় অপরাধ: জলাভূমিতে নির্মাণ • জলাভূমির চরিত্র পরিবর্তন • জলাভূমি দখল • জলাভূমিতে প্রাণীহত্যা



এক নজরে
পূর্ব কলকাতা
জলাভূমি অঞ্চল

মৌজা
মুখ্য সড়ক
ম্যাপ স্কেল অনুযায়ী নয়

জলাভূমি অঞ্চল
কৃষি অঞ্চল
বসতি অঞ্চল
উৎপাদনশীল কৃষি অঞ্চল



জলজ্যন্ত থাক!

সংরক্ষিত থাক জলাভূমি, সুরক্ষিত থাক
সেখানে বসবাসকারী সমস্ত প্রাণী ও উদ্ভিদ।

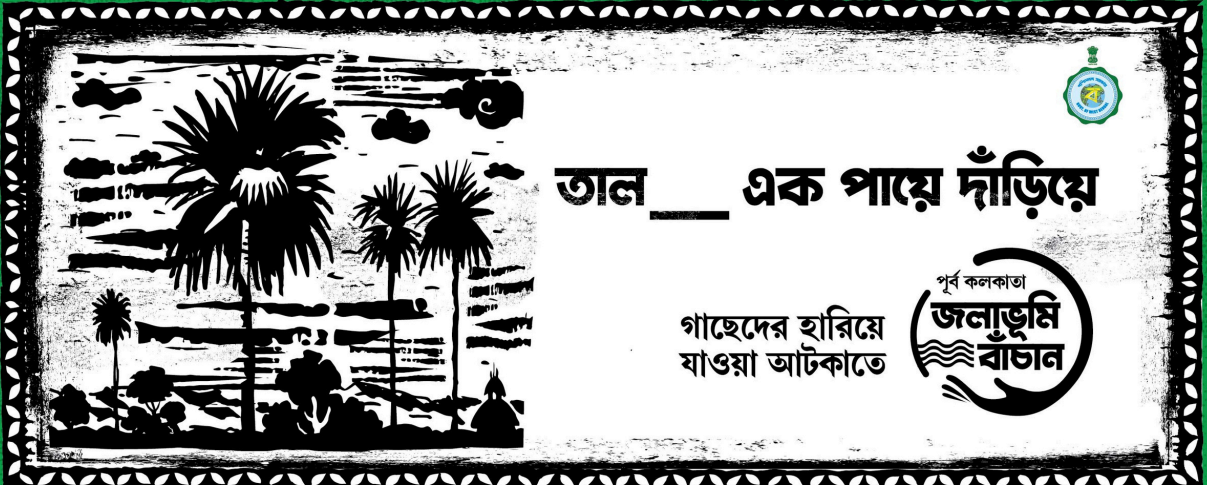


দণ্ডনীয় অপরাধ

- জলাভূমিতে নির্মাণ
- জলাভূমির চরিত্র পরিবর্তন
- জলাভূমি দখল
- জলাভূমিতে প্রাণীহত্যা

গোবক (Large Egret)

পশ্চিমবঙ্গ সরকার



তাল এক পায়ে দাঁড়িয়ে

গাছেদের হারিয়ে
যাওয়া আটকাতে



দণ্ডনীয় অপরাধ: জলাভূমিতে নির্মাণ • জলাভূমির চরিত্র পরিবর্তন • জলাভূমি দখল • জলাভূমিতে প্রাণীহত্যা | পশ্চিমবঙ্গ সরকার

Annual Report

2023-24



East Kolkata Wetlands Management Authority
Department of Environment
Govt. of West Bengal

**Published By
The Chairman
East Kolkata Wetlands Management Authority (EKWMA)**



© East Kolkata Wetlands Management Authority

FOREWORD



Wetlands are often misunderstood and undervalued, yet they are among the most productive ecosystems on Earth. From purifying water and buffering floods to storing carbon and supporting rich biodiversity, their value is irreplaceable. The East Kolkata Wetlands, a designated Ramsar Site, exemplify how nature and human livelihoods can coexist in a sustainable balance. As one of the world's largest wastewater-fed aquaculture systems, these wetlands are not just an ecological marvel but a socio-economic lifeline for thousands.

Despite their significance, wetlands are disappearing at an alarming rate—three times faster than forests. Urban expansion, pollution, and the intensifying impacts of climate change continue to erode these ecosystems. The need for urgent and unified action has never been greater.

Wetland conservation is not the sole responsibility of governments or environmental bodies. It is a shared duty, involving citizens, local communities, policymakers, researchers, and administrators alike. Preserving these ecosystems means securing our collective future—our water, food, biodiversity, and resilience to climate change.

The East Kolkata Wetlands Management Authority (EKWMA) and State Wetlands Authority (SWA) have worked throughout 2023-2024 to reinforce this message through action and outreach. Highlights of our efforts include:

- De-siltation of Bheries, enhancement of fish productivity, and plantation drives to boost ecological health.
- Public awareness initiatives include educational tours, World Wetlands Day celebrations, and cycle trips.
- Legal and technical interventions, including wetland documentation, GIS mapping, and the introduction of Wetland Health Cards.
- Geo-tagging and Ground Truthing of Wetlands and Preparation of Brief Documents of Wetlands in W.B.
- Authority action against illegal encroachment and wetland filling, in collaboration with district authorities.

- Implementation of Integrated Management plan of East Kolkata Wetlands.
- Conduct of Asian Waterbird Census within EKW area and initiation of studies like Heavy Metal Assessment, Value Assessment of Fishes and culture of Indigenous Fish Species etc

It gives me immense pleasure to present the Annual Report of the East Kolkata Wetlands Management Authority (EKWMA) for the year 2023-2024. This report encapsulates the collective efforts, achievements, and challenges encountered by the Authority in its continued mission to preserve, protect, and sustainably manage the East Kolkata Wetlands — a unique Ramsar Site of international importance.

Over the past year, EKWMA has undertaken significant steps in reinforcing the ecological integrity of the wetlands while ensuring sustainable livelihoods for the dependent communities. Our work has focused on strengthening the enforcement of conservation laws, promoting scientific waste management practices, and increasing awareness about the crucial role these wetlands play in urban resilience and climate mitigation.

The Authority has worked in close coordination with local stakeholders, academic institutions, and government departments to foster a collaborative model of conservation. Special emphasis was laid on community participation, which remains central to the unique model of eco-sustainability that defines East Kolkata Wetlands.

As we reflect on the milestones achieved in 2023-24, we are also mindful of the challenges that lie ahead. Rapid urbanization, encroachment pressures, and climate uncertainties continue to pose significant threats to the wetland ecosystem. It is imperative that we continue to innovate, adapt, and work collectively to safeguard this invaluable natural asset for future generations.

I extend my sincere gratitude to all members of the Authority, our partners, and the local communities whose dedication and unwavering commitment have been instrumental in our progress. I am confident that with sustained efforts and visionary stewardship, we can further strengthen the resilience and ecological wealth of the East Kolkata Wetlands and other wetlands.

Chandrima Bhattacharya
Hon'ble Minister-of-State (IC), Environment Department
Chairman, East Kolkata Wetlands Management Authority (EKWMA) &
West Bengal State Wetlands Authority

INDEX

CONTENTS

Chapter 1: Introduction of East Kolkata Wetlands	1-2
<ul style="list-style-type: none">• Location of East Kolkata Wetlands• Background of East Kolkata Wetlands• Adaptation of the system of sewage feed pisciculture• Salient Features of East Kolkata Wetlands	
Chapter 2: Formation and Composition of East Kolkata Wetlands Management Authority (EKWMA)	3-5
<ul style="list-style-type: none">• Members of EKWMA• Name of Expert Members• Name of Chairperson, Member Secretary and Chief Technical Officer• Staff Strength of EKWMA• Meetings of the EKWMA	
Chapter 3: Activities of EKWMA during 2023-24	6-27
<ul style="list-style-type: none">• Enforcement of East Kolkata Wetlands (Conservation and Management) Act, 2006• Status of RTI Reply• Status of Court Cases• Implementation of Integrated Management Plan of East Kolkata Wetlands 2021-2026<ol style="list-style-type: none">1.De-siltation of Bheries2.Bioaccumulation of Heavy Metal Studies3.Asian Waterbird Census4.Multiple Value Assessment5.Culture of Indigenous Fish Species6.Management of Invasive Fish Species• Celebration of World Wetlands Day• Establishment of hatchery at 4 no. Bheri, Sector-IV• Afforestation Program• Nature Tours within EKW area	
Chapter 4: Finance	28

CONTENTS

Chapter 5: Formation and Composition of West Bengal State Wetlands

Authority (SWA) 29-32

- Background of Formation of SWA
- Members of SWA
- Names of Expert Members during 2022-2025
- Name Chairperson, Vice- Chairperson and Member Secretary
- Staff Strength of WBSWA
- Meetings of the SWA

Chapter 6. Major Activities of WBSWA during 2023-24 33-35

- Geo-tagging of the wetlands
- Ground Truthing of the Wetland
- Preparation of Brief Document
- Geo-mapping of significant waterbodies
- Preparation of Wetlands Health Card
- Enrollment of Wetlands Mitra
-

List of Annexure

- I. Copy of the Notification of the Expert Member of EKWMA
- II. Minutes of the 31st meeting of East Kolkata Wetlands Management Authority.
- III. List of un-disposed cases before the Hon'ble High Court at Calcutta relating to East Kolkata Wetlands.
- IV. Minutes of the Forth Meeting of State Wetlands Authority

The East Kolkata Wetlands





INTRODUCTION OF EAST KOLKATA WETLANDS

Location of East Kolkata Wetlands:

East Kolkata Wetlands (EKW) are situated on the eastern fringes of the city of Kolkata at 22°25' N to 22°35' N and 88°20' E to 88°35' E. EKW is spread over 12,500 ha area in 37 Mouzas (30 full and 7 part) under South and North 24 Parganas, Districts, Bidhannagar Municipal Corporation, and Kolkata Municipal Corporation.

Background of East Kolkata Wetlands:

East Kolkata Wetlands evolved from a combination of natural and man-made influences. The EKW area falls within the region of the mature delta of the river Ganga. A century ago, this area was connected with Bay of Bengal through Matla-Piyali-Adiganga distributaries and was also influenced by tidal action. Due to this reason, EKW was considered as saline marshy area at that time.

After establishment of the city, Kolkata, the drainage of the city was discharged into the river Hugli artificially against the natural slope. As drinking water of the city was supplied from the river hugli, the city drainage was started to be discharge into the Saltwater Lakes as per slope of the city through underground drainage system. Finally, the sewage passed into the Bay of Bengal, through the Bidyadhari and consequently to the Matla River.

Adaptation of the system of sewage feed pisciculture:

Over the last hundred or more years, the saline marshy area was gradually changed into the Waste Recycling Region. With the significant changes in this area, local farmers got an opportunity to develop resource recovery systems incorporating wastewater fisheries and agriculture based on effluents.

In 1929, as Kolkata grew, local communities began utilizing these wetlands innovatively to treat urban wastewater through a natural process, turning waste into a resource. This unique wastewater management system, known as the "Kolkata Model," involves

channeling untreated sewage water from the city into the wetlands. The organic nutrients in the sewage support the growth of aquatic plants and algae, which in turn nourish fish and other aquatic life, leading to sustainable fish farming and vegetable cultivation. In this process, the sewage-grown fish become prominent with species such as Rohu, Catla, and Mrigal and exotic ones such as Silver Carp, Grass Carp and common carp, along with Tilapia, Walking Catfish, etc.

In this way, East Kolkata Wetlands creates a successive resource recovery system in the form of vegetable farms, fishponds and paddy fields and has become the world's largest wastewater ecosystem. Considering this uniqueness, Ramsar Secretariat has notified East Kolkata Wetlands as wetlands of international importance on 19/08/2002. As per the Ramsar Sites Information Service (RSIS) East Kolkata Wetlands have site no. 1208.

Salient Features of East Kolkata Wetlands:

- East Kolkata Wetlands save the city Kolkata from the costs of Rs.4680 million annually for constructing and maintaining wastewater treatment plants.
- East Kolkata Wetlands have over 260 shallow fishponds. The fishponds receive over 900 million Litres per day pre-settled sewage from Kolkata.
- This area produces 20,000 MT of fish and 50,000 MT of vegetables.
- The sewage irrigates 4,700 ha. of paddy lands.
- EKW provides livelihood to 0.15 million people.
- The wetlands lock in over 60% of carbon from wastewater.
- Maintain the micro-climatic condition of the region.
- Provide outlets during flood /heavy rain.
- Prevent Soil erosion.
- Manage Solid Waste through garbage farming of the vegetables.





FORMATION AND COMPOSITION OF EAST KOLKATA WETLANDS MANAGEMENT AUTHORITY (EKWMA)

For conservation and protection of the International Importance site i.e. East Kolkata Wetlands, Government of West Bengal framed East Kolkata Wetlands (Conservation and Management) Act, 2006 [EKW(C&M)Act, 2006]. As per Section 3 of the said Act, a statutory body namely East Kolkata Wetlands Management Authority was formed to better management of the East Kolkata Wetlands area.

In the year 2010, the Ministry of Environment, Forest and Climate Change notify Wetlands (Conservation and Management) Rules, 2010 under the Environment (Protection) Act 1986. As per Rule 3 (i) of the said Rules, East Kolkata Wetlands being a Ramsar site falls under this Rules. After that, the Wetlands (Conservation and Management) Rules, 2010 was superseded by the Wetlands (Conservation and Management) Rules, 2017 [Wetlands (C and M) Rules, 2017].

Meeting of EKWMA:

During the year 2023-24, 31st meeting of East Kolkata Wetlands Management Authority was held on 30.10.2023 at the conference hall of Chief Secretary on 13th Floor, Nabanna. The meeting was chaired by Md. Golam Rabbani, Minister-in-Charge, Department of Environment, and co-chaired by Shri Hari Krishna Dwivedi, Chief Secretary, Govt. of West Bengal. A copy of the minutes of the meeting is attached in Annexure-II.

Staff Strength of EKWMA:

Twelve staffs perform the day-to-day activities of East Kolkata Wetlands Management Authority under the supervision of Chief Technical Officer, EKWMA. The Senior Law Officer, Department of Environment plays the role of SPIO of EKWMA and supports the law related matters of EKWMA. The Environment Officer, Department of Environment assists in technical matters as Technical Officer, EKWMA.

East Kolkata Wetlands Management Authority Structure

Chairperson	Hon'ble Minister-in-Charge, Dept. of Environment
Member	Chief Secretary to the Govt. of W.B.
Member Secretary	Additional Chief Secretary/ Principal Secretary/ Secretary to the Dept. of Environment
Members	Additional Chief Secretary/ Principal Secretary/ Secretary to the Dept. of Forest Dept. of Panchayats and Rural Development Dept. of Fisheries Dept. of Irrigation and Waterways Dept. of Tourism Dept. of Land and Land Reforms and Refugee Relief and Rehabilitation
Expert Members	Dr. Kalyan Rudra - Hydrology Expert Dr. Neera Sen Sarkar - Wetland Ecology Expert Director of Fisheries or his representative of Dept. of Fisheries - Fisheries Expert Dr. Debarati Das - Socio-Economics Expert
Permanent Invitee Members	Commissioner, Kolkata Municipal Corporation District Magistrate, North and South 24-Parganas

NAME OF CHAIRPERSON, MEMBER SECRETARY AND CHIEF TECHNICAL OFFICER OF EKWMA, 2023-2024.

Chairperson



Shri Manas Ranjan Bhunia
Minister-in-Charge,
Department of Environment

**Tenure: 01.04.2023-
15.06.2023**



Smt. Mamata Banerjee
Chief Minister,
Govt. of West Bengal

**Tenure: 16.06.2023-
21.09.2023**



Md Golam Robbani
Minister-in-Charge,
Department of Environment

**Tenure: 22.09.2023-
31.03.2024**

Member Secretary



Ms. Roshni Sen
Add. Chief Secretary,
Department of Environment

**Tenure: 01.04.2023-
31.03.2024**

Chief Technical Officer



**Shri Kaliyamurthi
Balamurugan**
Chief Environment Officer,
Department of Environment

**Tenure: 01.04.2023-
31.08.2023**



Smt. Tripti Sah
Sr. Environment Officer,
Department of Environment

**Tenure: 01.09.2023-
31.03.2024**



ACTIVITIES OF EAST KOLKATA WETLANDS MANAGEMENT AUTHORITY DURING THE YEAR 2023-2024

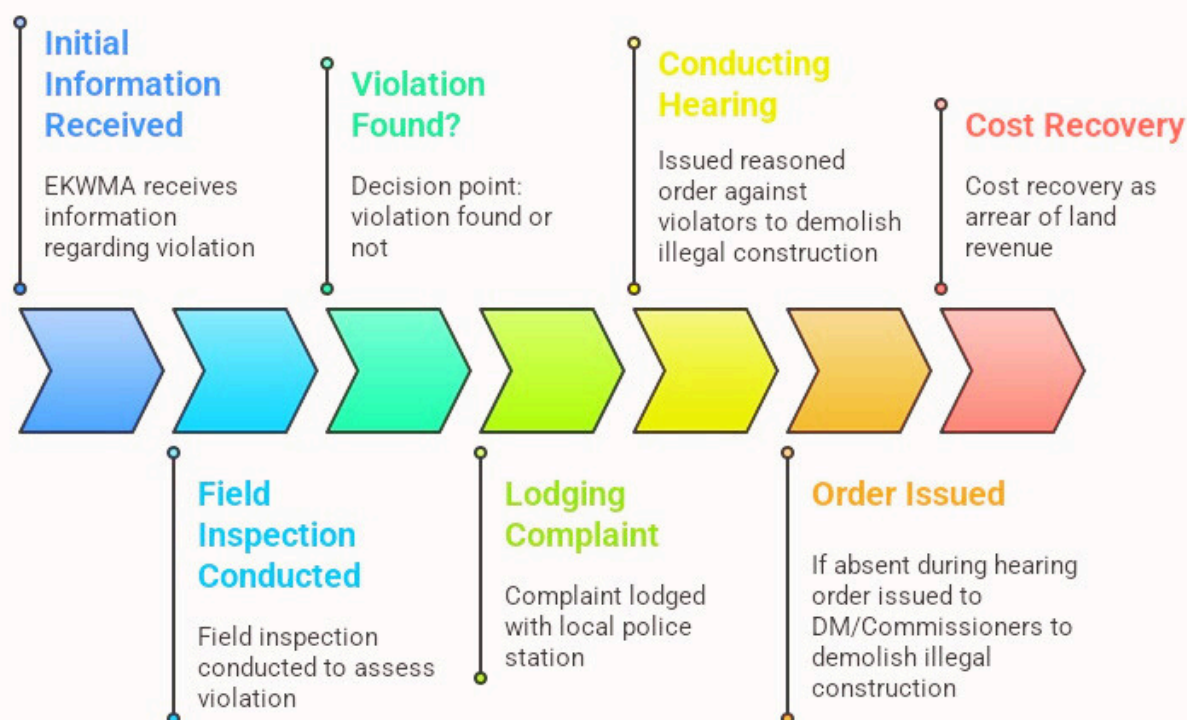


ENFORCEMENT OF EAST KOLKATA WETLANDS (CONSERVATION AND MANAGEMENT) ACT, 2006 AND WETLANDS (CONSERVATION AND MANAGEMENT) RULES, 2017:



EKW area consists of four types of land use and cover which are Aquaculture area, Agriculture area, Productive farming area and Settlement area. It is different from other Ramsar sites as it is livelihood-based system with more than 100 villages and approx. 1,50,000 people living within it. Considering this and according to the nearest location of the metropolitan city, Kolkata, East Kolkata Wetlands faces huge pressure of human settlement. To overcome this issue, strict enforcement of the regulations of East Kolkata Wetlands (Conservation and Management) Act, 2006 and Wetlands (Conservation and Management) Rules, 2017 is the top most priority. EKWMA has undertaken following steps to implement the provision of EKW (C&M) Act, 2006 and Wetlands (C&M) Rules.

EKWMA's Violation Handling Process



Status of RTI Reply:

To empower the citizens, promote transparency and accountability in the working of the Government and make the democracy work for the people in real sense, Right to Information Act, 2005 has been framed. EKWMA has responded timely to various RTI applications that are received. During the year 2023-2024, this office received 77 RTI applications and replied for the same.

Status of Court Cases:

For violation of the provisions of the East Kolkata Wetlands (Conservation and Management) Act, 2006 and Wetlands (Conservation and Management) Rules, 2017 as well as challenging the provisions of the said Act and Rules, some citizens, including NGOs, filed civil suits before the Hon'ble High Court at Calcutta and the Hon'ble National Green Tribunal (NGT), Eastern Bench, Kolkata. Upto March 2024, 5 cases are running before the Hon'ble NGT and 12 cases are running before the Hon'ble High Court at Calcutta. A list of ongoing cases is annexed in Annexure-III

IMPLEMENTATION OF INTEGRATED MANAGEMENT PLAN OF EAST KOLKATA WETLANDS 2021-2026:

Located on the peri-urban interface of Kolkata city, the East Kolkata Wetlands has been under constant pressure of conversion of wetlands into other land class (agriculture and settlement). For the sake of better conservation of EKW one Management Plan has been framed through wise-use of this natural endowment and a series of developmental intervention. The duration of this plan is five years and this is a Centrally Sponsored Scheme. The work of the implementation of Integrated Management Plan has been started from the Financial Year 2022-23. The ongoing activities of IMP are elaborated as follows:



De-siltation of Bheries within EKW area:

As per the practice followed in EKW, the fishermen community has used Kolkata sewage water from Kolkata for pisciculture within East Kolkata Wetlands area. So deposition of silt within the bheries of EKW area happens very fast. Periodical de-siltation of bheries is essential to continue non-interrupted pisciculture in EKW area. Considering this, de-siltation of bheries has been included in the work components of IMP.



Objective of De-siltation:

The primary objective of de-siltation is to restore depth, improve water flow, enhance fish productivity, and rejuvenate ecological balance of the bheries. De-siltation also helps remove accumulated sediments, organic matter, and pollutants, thereby:

- Increasing the water-holding capacity of the bheri,
- Ensuring proper oxygenation and water quality for aquaculture,
- Promoting biodiversity and supporting wetland ecology,
- Preventing overflow and maintaining efficient sewage treatment functions.

Benefits of De-siltation:

The de-siltation project brings numerous ecological and economic benefits:

- **Enhanced Fish Production:** With improved water quality and depth, fish production is expected to increase, benefiting local fishermen and contributing to Kolkata's fish supply.
- **Improved Water Quality:** Removal of silt enhances the water's self-purification capacity, supporting the wetland's role as a natural sewage treatment system.
- **Biodiversity Conservation:** De-siltation helps maintain a habitat conducive to various fish species, birds, and other wetland wildlife, contributing to biodiversity conservation in the East Kolkata Wetlands.
- **Flood Control:** Increased water-holding capacity of the bheri aids in mitigating flood risks during monsoon seasons.

Within EKW, the State Fisheries Development Corporation (SFDC) under Fisheries Department manages some bheries at Salt Lake, Sector-V, known as Nalban Bheri. Nalban Bheri plays an essential role in supporting the region's unique ecological balance and serves as a natural sewage treatment plant for Kolkata's wastewater. In recent years, Nalban Bheri has faced siltation challenges that have affected its depth, water quality, and fish productivity. Considering this, de-siltation of Nalban Bheri has been undertaken.

This project plays vital role under SFDC's stewardship to maintain the ecological health of the East Kolkata Wetlands. Through such initiatives, SFDC supports sustainable fishery practices while protecting the wetland's ecological integrity, ensuring that it continues to serve as a valuable resource for both local communities and the environment. This project reflects a sustainable approach to managing urban wetlands, balancing ecological conservation with economic needs.

Asian Waterbird Census (AWC):



Asian Waterbird Census (AWC):

The Asian Waterbird Census (AWC) is an annual event conducted to monitor the status and distribution of waterbird populations across Asia and assess the health of important wetland ecosystems.

Objectives of the Asian Waterbird Census:

The AWC aims to:

- **Monitoring Waterbird Populations:** Assessing the population and diversity of waterbirds in wetlands to understand trends and identify species at risk.
- **Assessing Wetland Health:** Evaluating the ecological health of wetlands, as waterbird diversity and numbers are indicators of wetland quality.
- **Support Conservation Efforts:** Providing information on policy decisions and conservation measures for wetlands and water birds.
- **Raising Awareness:** Engaging communities, birdwatchers, and local stakeholders in wetland conservation efforts.

Role of NEWS in the AWC:

In India, this census is often facilitated by local organizations and dedicated NGOs. One such organization, Nature, Environment and Wildlife Society (NEWS), plays an instrumental role in organizing the AWC in West Bengal and other important bird habitats. To utilize the experience of NEWS regarding AWC, this organization has been engaged for AWC within East Kolkata Wetlands area.

NEWS has been actively involved in the AWC by organizing and coordinating volunteer efforts, raising awareness, and collecting vital data across wetland areas. The organization collaborates with other NGOs, government agencies, and local birdwatchers to gather reliable data, train volunteers, and ensure accurate bird identification and counting. Through active participation in the AWC, NEWS contributes to global conservation efforts, highlighting the ecological importance of India's wetlands and the need to protect these critical habitats for future generations.

Activities undertaken during the Census:

1. Volunteer Training and Coordination: NEWS provides training for volunteers on bird identification, data collection methods, and ethical guidelines for conducting the census.
2. Data Collection: Teams of trained birdwatchers and volunteers conduct counts of waterbirds in designated wetlands area. Each team records species diversity, numbers, and any observed threats to the habitat.
3. Data Analysis and Reporting: After data collection, NEWS compiles and analyzes the findings, contributing them to the AWC database, which is used for regional and global conservation assessments.

Bioaccumulation of Heavy Metal Studies in East Kolkata Wetlands (EKW) :

East Kolkata Wetlands meets up some quantity of demand of food of Kolkata through producing 20,000 MT of fish and 50,000 MT of vegetables. To measure nutrients of the fishes and vegetables, study of heavy metal contamination is undertaken periodically. This initiative is essential for ensuring food safety, protecting public health, and promoting sustainable agriculture in the region. The Institute of Environmental Studies and Wetland Management (IESWM) has achieved significant milestones in its study on heavy metal contamination in fish and vegetables cultivated in the East Kolkata Wetlands (EKW). Keep in mind the necessity of this study, this is aligned with the work components of IMP. IESWM has been engaged for this study.

Objectives of the studies on Bioaccumulation of Heavy Metal in EKW:

The aim of this project:

- Successfully identifying and quantifying levels of harmful heavy metals—including lead, cadmium, mercury, and arsenic—in fish and vegetables produced in EKW.
- Providing an essential database for tracking contamination sources and levels across different areas of the wetlands, which would help to take preventive measures for minimizing health risks and ensuring safer produce for consumption.

Providing valuable information for policy makers and environmental agencies, that would support the development of regulations of protect public health, safeguard wetland ecology, and promote sustainable agriculture within EKW.

This project by IESWM would mark a significant step toward reducing environmental contamination, protecting the health of local communities, and ensuring the sustainable use of the East Kolkata Wetlands. It would stand as an exemplary model for managing heavy metal contamination in ecologically sensitive areas.



Multiple Value Assessment of East Kolkata Wetlands (EKW):

To enhance the sustainable productivity of the East Kolkata Wetlands (EKW), an in-depth Multiple Value Assessment study is incorporated in the work component of IMP. This study is being conducted by the Central Inland Fisheries Research Institute (CIFRI). This assessment focuses on evaluating and optimizing the production of various ecosystem products, including fish, paddy, horticultural produce, medicinal plants, and floriculture.

Objectives of the Multiple Value Assessment

The study aims to:

- **Enhancement of Fish Production:** Identifying opportunities for sustainable intensification of fish farming, a primary livelihood for local communities in EKW, while maintaining ecological balance.
- **Optimizing Agricultural Yields (Paddy):** Assessing current paddy production practices to enhance output and efficiency by using EKW's nutrient-rich soil and water resources.
- **Promote Horticulture and Medicinal Plant Cultivation:** Explore potential for increasing the cultivation of vegetables, fruits, and medicinal plants, which can add economic value and biodiversity to the region.
- **Expand Floriculture:** Evaluate the potential of floriculture as an alternative livelihood, supporting local economies while adding aesthetic and ecological benefits.

Key Areas of Assessment

1. **Fish Production:** CIFRI is assessing fish species diversity, population, health, water quality, and habitat conditions to recommend strategies for sustainable aquaculture expansion. This includes exploring options for increasing fish yields while ensuring minimal environmental impact.
2. **Agriculture (Paddy):** This assessment examines soil quality, water availability, and farming practices to improve paddy productivity, crop resilience, and yield quality.

3. Horticulture and Medicinal Plants: CIFRI is studying the feasibility of growing a wider variety of crops, including vegetables, fruits, and medicinal plants, which can offer local farmers additional sources of income and contribute to food security.

4. Floriculture: This study explores opportunities for floriculture suitable in EKW's climate. This diversification could open new economic opportunities in local and urban markets.

Expected Outcomes

- Sustainable Economic Development: The assessment will provide actionable recommendations for enhancing the production of fish, paddy, horticultural products, medicinal plants, and flowers, which would support local livelihoods.
- Biodiversity Conservation: By promoting a variety of agricultural and aquaculture practices, the study aims to enrich biodiversity within EKW, strengthening the resilience of this ecosystem.
- Informed Management Practices: The findings will help establish sustainable production practices in EKW, balancing economic needs.



Culture of Indigenous Fish Species within East Kolkata Wetlands (EKW):

The Central Inland Fisheries Research Institute (CIFRI) has assigned a feasibility assessment focused on enhancing the culture of indigenous fish species within the East Kolkata Wetlands (EKW). This study aims to boost the production of native fish varieties, restore natural fish stocks, and promote sustainable aquaculture practices within the EKW ecosystem. This work is aligned with work component of IMP.

Objectives of the Study

The study has several key goals:

- **Increase Production of Indigenous Fish Species:** Identifying viable native fish species suited to the unique environmental conditions of EKW and assesses strategies to increase their production.
- **Restore and Maintain Fish Biodiversity:** Re-establish indigenous fish populations that have declined due to overfishing, habitat degradation, and introduction of exotic species, thereby supports biodiversity within the wetlands.
- **Promote Sustainable Aquaculture Practices:** Developing guidelines for sustainable management and stocking of indigenous species to ensure ecological balance and long-term productivity.

Key Areas of Study

1. **Feasibility of Indigenous Fish Culture:** CIFRI is evaluating the conditions of various bheries (fishponds) within EKW to determine their suitability for rearing indigenous fish species, just like rohu, catla, bata, and other native varieties. The study includes assessing water quality, habitat conditions, and potential challenges in breeding and rearing these species.
2. **Restocking and Biodiversity Enhancement:** The study involves strategies for restocking indigenous fish to repopulate EKW's waters fostering a balanced ecosystem, which also supports various forms of aquatic life. CIFRI is developing restocking plans that align with the natural breeding cycles and habitat preferences of these species.

3. **Community Engagement and Training:** As part of the initiative, CIFRI is collaborating with local fish farmers to provide training on the benefits of cultivating indigenous species, sustainable aquaculture techniques.

Expected Benefits

- **Sustainable Fish Production:** By focusing on indigenous species, the project promotes a sustainable aquaculture model that supports local biodiversity and aligns with EKW's environmental conditions.
- **Biodiversity Conservation:** Reintroducing and maintaining native fish populations helps restore EKW's ecological balance, benefiting the entire wetland ecosystem and the species that rely on it.
- **Economic Opportunities for Local Communities:** The increased production of native fish offer new economic opportunities for local fish farmers, creating a stable supply of high-demand indigenous fish for local markets.

This initiative by CIFRI supports a balanced approach to wetland management, combining economic development with conservation, thus securing the future of EKW's unique ecological and cultural heritage.



Management of Invasive Fish Species in East Kolkata Wetlands (EKW)

The presence of invasive fish species in the bheries of East Kolkata Wetlands (EKW) poses a significant threat to native fish populations and disrupts the productivity of traditional bheries (fishponds) that support local livelihoods. These invasive species prey on indigenous fish, leading to reduced fish yields and biodiversity loss. To address this issue, the East Kolkata Wetlands Management Authority (EKWMA) has entrusted the Central Inland Fisheries Research Institute (CIFRI) with implementing a targeted strategy for managing and eradicating invasive fish species.

Objectives of the Invasive Species Management Initiative

This initiative, as outlined in the IMP of EKW, aims to:

- **Identification and Eradication Invasive Species:** Conducting thorough assessments to identify invasive fish species impacting the wetlands and develop effective methods to control their populations.
- **Protection of Indigenous Fish Stocks:** Reduce predation pressure on native fish species to support biodiversity and enhance sustainable fish production.
- **Restriction of Pathways for Invasion:** Identifying and monitoring pathways through which invasive species enter the wetlands to prevent further introductions and establish long-term control.



Key Strategies and Actions

1. **Screening and Identification of Invasive Species:** CIFRI is conducting field surveys to identify invasive fish species, such as Tilapia and other non-native species, which have established populations in EKW. This screening process helps determine the extent of their impact on local fish biodiversity and productivity.
2. **Pathway Analysis and Monitoring:** CIFRI is analyzing potential invasion pathways—such as water inflows, aquaculture stocking practices, and human activities—that allow invasive species to spread in EKW. By identifying these routes, CIFRI can implement targeted controls to minimize future introductions.
3. **Development of Eradication Techniques:** Various control measures, including selective fishing and biological controls, are being explored to reduce invasive fish populations. CIFRI is also working on methods to selectively remove invasive species without harming native fish or disrupting the wetland ecosystem.
4. **Community Awareness and Training:** CIFRI is collaborating with local fish farmers and stakeholders to educate on the risks posed by invasive species and promote best practices for prevent their spread. Training is being provided on identifying invasive species, selective harvesting techniques, and sustainable management practices.

Expected Outcomes and Benefits

- **Improved Fish Production:** By controlling invasive species, the initiative would expect to increase productivity and yields of fishes.
- **Biodiversity Conservation:** Protecting native fish species from invasive species, helps to maintain the ecological balance, preserve biodiversity and support the natural functions of EKW.
- **Enhanced Ecological Resilience:** Minimizing invasive species within EKW strengthens the wetland's resilience against ecological threats, supporting its long-term health and sustainability.

This proactive management of invasive fish species by CIFRI, under EKWMA's guidance, represents a significant step in protecting the EKW's unique ecosystem. By combining scientific research with community engagement, this initiative supports sustainable fish production, biodiversity conservation and the ecological integrity of EKW.



Celebration of World Wetlands Day:

World Wetlands Day is celebrated annually on 2nd February. This date marks the adoption of the Ramsar Convention on Wetlands in 1971, an inter-governmental treaty aimed at conserving and sustainably using wetlands around the world.

The theme for World Wetlands Day 2024 was “Wetlands and Human Wellbeing”. This year’s campaign spotlights the interconnectivity between human life and wetlands with people drawing sustenance, inspiration and resilience from these productive ecosystems. These ecosystems play a crucial role in maintaining water quality, supporting biodiversity, mitigating climate change, and providing livelihoods for millions of people worldwide.

During FY 2023-24, the programme was organized at Nalban Bheri in Salt Lake which is within East Kolkata Wetlands (EKW) and at Birinchibari in Sundarban Wetland. Both East Kolkata Wetlands and the Sundarban Wetland are crucial habitats which provide numerous ecosystem services, support biodiversity, and play a vital role in the lives and livelihoods of local communities. Celebrating World Wetlands Day in these locations brought attention to the unique features and challenges faced by these two wetlands while emphasizing the need for their conservation and sustainable management.

On 2nd February, 2024, EKWMA celebrated World Wetlands Day at Nalban Bheri, Salt Lake, Sector- V in association with an NGO viz. Nature Environment & Wildlife Society (NEWS). A total of 100 participants joined the program which included 40 students and teachers from Kendriya Vidyalaya Fort William and Sukantanagar Vidyaniketan High School, Youth Volunteers, Bheri workers of Nalban (salt lake), 4 no Bheri (sec-IV, salt lake), Nalban 1 (Tardaha Kapashati mouza), the Officials from the EKWMA and NEWS team. Following activities were undertaken in tandem with the theme of the year “Wetlands and Human Wellbeing”:

- A knowledge sharing session regarding importance of EKW, its conservation and management, experience, scope and challenges faced during day-to-day activities by fish farmers was organized.
- Being the habitat of around 123 bird species in the EKW, Bird Watch and Nature Walk was arranged.
- To conserve biodiversity and sustain fish populations, fish fingerlings into Nalban bheri was released by the officials and other participants. These actions not only benefited the local wetland ecosystem, but also garnered a sense of responsibility and connection to the nature among the participants.

- A quiz competition was organized at Sukantanagar Vidyaniketan related to wetlands and environmental conservation. Winners were awarded prizes to recognize their knowledge and participation.
- To commit environmental stewardship and promote a cleaner and healthier ecosystem, a cleanliness drive was conducted at Nalban Bheri by the students. This initiatives foster a sense of responsibility on environmental conservation efforts.

In continuation of the celebration of World Wetlands Day, on 3rd February, 2024 another programme was organised at Birinchibari in Sundarban Wetland. It was a comprehensive and engaging event focused on raising awareness about Sundarban Wetland and encouraged community participation in their conservation efforts. Birinchibari Water User's Association (WUA) participated in this programme, alongwith NEWS and the EKWMA officials to make the event successful. The programme was started through the valuable speeches of the Hon'ble guests on the importance of wetlands conservation and interdependence among ecosystems. The following activities were undertaken to highlight the importance of wetlands conservation among various stakeholders.

- An awareness rally was conducted with nearly 55 school students from Birinchibari Abaitanik Prathamik Vidyalaya and Birinchibari Junior High School, along with teachers.
- Fish fingerlings of Indian major carps have been released by the officials present on this occasion.
- Plantation drive conducted with different fruit-bearing sapling to enhance green cover and promoting ecosystem resilience.
- A poster competition was organized preceding the programme of the World Wetlands Day celebration to recognize and encourage the creative expression of the youth in advocating for wetlands conservation. Prizes were distributed to the winners of the competition on this day.



Establishment of hatchery within East Kolkata Wetlands area:

To improve livelihood and economy of wetland community in East Kolkata Wetlands, a hatchery was established at 4no. bheri, sector-IV in convergence mode with Science and Technology and Biotechnology Department. This initiative would encourage cultivation of high value fish in the wetlands, thus helping to increase fish production as well as improve earnings of fisherman.

Nature Tours in East Kolkata Wetlands area

South Asian Institute for Advanced Research and Development (SAIARD): Three-day capacity building program on “vulnerability assessment study of East Kolkata Wetlands through the application of Geospatial Technology” was organized by South Asian Institute for Advanced Research and Development on 03.04.2023 to 05.04.2023. To make this workshop more useful, EKWMA conducted one field tour on 05.04.2023 to provide the knowledge of mechanism and challenges of EKW to the participants of the workshop. Near about sixty students participated in this field trip.





Gandhi Centenary B.T. College, Habra: A field trip was organized on 04.05.2023 for the students of Gandhi Centenary B.T. College, Habra. Thirty students participated in this field trip for their study regarding sewage distribution within the EKW area and its solar purification followed by natural oxidation.

Tamil Nadu Forest Academy, Coimbatore: Tamil Nadu Forest Academy, Coimbatore organized East India Study Tour to 2022-2024 (IX Batch) Forest Range Officer trainees of Eighteen Months Induction course from 14.01.2024 to 06.02.2024. East Kolkata Wetlands and its management practice was the part of the said tour. 45 trainees visited the EKW area on 21.01.2024 for this purpose.



Cycling Trip: To celebrate the occasion of World Environment Day a cycling trip was organized on 03.06.2023 in collaboration with Bengal Chamber of Commerce and Industry. The objective of the trip is to generate awareness among the general public about the importance of wetlands being Ramsar site. This initiative had also been promoted to efficiently mitigate the challenges from air pollution. The trip started from New Town Business Club Premises and ended at Chaker bheri.





Afforestation Program:

To increase green cover and reduce climate change risk for the sake of protecting the environment, afforestation program was undertaken during this year. In this regard, 4000 seedlings were distributed among the officials and staffs of Environment Department, West Bengal Biodiversity Board and East Kolkata Wetlands Management Authority. Cotton bags were also distributed with these seedlings to make behavioral changes through promotion to use cotton bags rather than plastic bags to prevent pollution.



FINANCES

Abstracts of receipts and expenditure, and Budget Estimate of EKWMA for the period of 2023-2024 are given below:

Table 2: Abstract of receipts and expenditure of the EKWMA for 2023-24

Financial Year	Name of Head	Opening Balance (Rs.)	Receipts (Rs.)	Expenditure (Rs.)	Closing Balance (Rs.)
2023-24	3435-03-102-002-36-00	3,94,210.00	37,80,000.00	41,74,210.00	0.00
	3435-03-102-002-31-02	5,32,062.00	39,16,389.00	43,48,451.00	1,00,000.00
	3435-03-101-009-35-00	1,19,82,500.00	0.00	0.00	40,00,644.00
	3435-03-101-009-35-00	89,41,900.00	0.00	42,58,007.00	46,83,893.00
	3435-03-003-001-31-02	0.00	3,18,000.00	3,18,000.00	0.00
	3435-04-103-004-31-02	11,800.00	0.00	0.00	11,800.00
	3435-04-800-002-31-02	12,58,800.00	0.00	12,58,800.00	0.00
	3435-03-003-002-31-02	9,00,000.00	0.00	9,00,000.00	0.00
	3435-03-101-001-31-02	0.00	5,14,575.00	4,69,575.00	45,000.00

* ₹ 12,58,800/- was surrendered to State Government Exchequer on 26.03.2024.

** ₹ 6,70,000/- was surrendered to State Government Exchequer on 26.03.2024.

Budget for the year 2023-24

Financial Year	Name of Head	Budget Estimate (Rs.)
2023-24	3435-03-102-002-36-00	83,50,000.00
	3435-03-102-002-31-02	3,26,00,000.00
	3435-03-101-008-35-00	1,00,00,000.00
	3435-03-101-009-35-00	67,00,000.00



FORMATION AND COMPOSITION OF WEST BENGAL STATE WETLANDS AUTHORITY:



Background of formation of SWA: The wetlands, vital parts of the hydrological cycle, are highly productive, support exceptionally large biological diversity and provide a wide range of ecosystem services, such as waste assimilation, water purification, flood mitigation, erosion control, ground water recharge, microclimate regulation, aesthetic enhancement of the landscape while simultaneously supporting many significant recreational, social and cultural activities, besides being a part of the cultural heritage. Many wetlands are seriously threatened by reclamation through drainage and landfill, pollution, hydrological alterations and over exploitation of their natural resources resulting in loss of biodiversity and disruption in goods and services provided by wetlands.

As India is a signatory to the Ramsar Convention for the conservation and wise use of wetlands, the Government of India had notified Wetlands (Conservation and Management) Rules, 2010 under the Environment (Protection) Act, 1986 for conservation and

management of wetland. In the year 2017, the Wetlands (Conservation and Management) Rules, 2010 was superseded by the Wetlands (Conservation and Management) Rules, 2017. In compliance with the Rule 5 of the said Rules, 2017, State Wetlands Authority was formed for the State of West Bengal.

Members of State Wetlands Authority	
Chairperson	Hon'ble Minister-in-Charge, Dept. of Environment
Vice-Chairperson	Chief Secretary to the Govt. of W.B.
Member Secretary	Additional Chief Secretary/ Principal Secretary/ Secretary to the Dept. of Environment
Members	Additional Chief Secretary/ Principal Secretary/ Secretary to the Dept. of Forest Dept. of Urban Development and Municipal Affairs Dept. of Panchayats and Rural Development Dept. of Water Resources Investigation and Development Dept. of Fisheries Dept. of Irrigation and Waterways Dept. of Tourism Dept. of Finance Dept. of Science and Technology and Bio-technology Dept. of Land and Land Reforms and Refugee Relief and Rehabilitation Chief Wildlife Warden, W.B. Member Secretary, W.B. Biodiversity Board A.P.C.C., Regional Office of MoEFCC Chief Environment Officer, Dept. of Environment
Expert Members	Dr. Subir Ghosh - Wetland Ecology Expert Prof. Gopinath Bhandari - Hydrology Expert Dr. Srikanta Samanta - Fisheries Expert Prof. Sumana Bandyopadhyay - Landscape Planning Expert Prof. Lakshmi Sivaramakrishnan - Socio-Economics Expert

NAME OF CHAIRPERSON, MEMBER SECRETARY AND CHIEF TECHNICAL OFFICER OF EKWMA, 2023-2024.

Chairperson



Shri Manas Ranjan Bhunia
Minister-in-Charge,
Department of Environment

**Tenure: 01.04.2023-
15.06.2023**



Smt. Mamata Banerjee
Chief Minister,
Govt. of West Bengal

**Tenure: 16.06.2023-
21.09.2023**



Md Golam Robbani
Minister-in-Charge,
Department of Environment

**Tenure: 22.09.2023-
31.03.2024**

Vice-Chairperson



Shri Hari Krishna Dwivedi
Chief Secretary,
Govt. of West Bengal

**Tenure: 01.04.2023-
31.12.2023**



Shri Bhagwati Prasad Gopalika,
Chief Secretary,
Govt. of West Bengal

**Tenure: 01.01.2024-
31.03.2024**

Member Secretary



Ms. Roshni Sen
Add. Chief Secretary,
Department of Environment

**Tenure: 01.04.2023-
31.03.2024**

Staff Strength of SWA:

As decided in the first meeting of the State Wetlands Authority held on 29.11.2017, the staffs of East Kolkata Wetlands Management Authority performed the day to day activities of SWA in addition to their own responsibility.

Meeting of SWA:

During the year 2023-24, 4th meeting of State Wetlands Authority was held on 30.10.2023 at the conference hall of Chief Secretary on 13th Floor, Nabanna. The meeting was chaired by Md. Golam Rabbani, Minister-in-Charge, Department of Environment, and co-chaired by Shri Hari Krishna Dwivedi, Chief Secretary, Government of West Bengal. A copy of the minutes of the meeting is attached in Annexure-IV.



MAJOR ACTIVITIES OF WEST BENGAL STATE WETLANDS AUTHORITY DURING THE YEAR 2023-24



Since formation of the State Wetlands Authority in West Bengal, power and functions mentioned in Rule 5(4) of the Wetlands (Conservation and Management) Rules, 2017, is being implemented from time to time after discussion with Ministry of Environment, Forest and Climate Change (MoEF&CC). During this financial year, following work plan had been undertaken in a time bound manner:

1. Geo-tagging of the wetlands:

Ministry of Environment, Forest and Climate Change (MoEF&CC) had prepared a Wetlands Atlas in the year 2010 by Space Application Centre, Ahmedabad to inventories wetlands in India. As per this National Wetlands Atlas, 2010, 8,911 wetlands with an area of 2.25 ha and above had already been indentified for West Bengal. For further checking of all the said 8,911 wetlands, the work of geo-tagging with Unique Identification Number has been done with the help of Fisheries Department.



2. Ground Truthing of the Wetlands:

To identify the changes of the Wetlands at an interval of ten years, MoEF&CC further took initiatives to inventories the wetlands all over India by Space Application Centre, Ahmedabad which was published in the year 2021. 12615 wetlands having the 2.25 ha and above have been identified in the National Wetlands Atlas, 2021.

To verify the physical existence of these wetlands, ground truthing is required. The National Centre for Sustainable Coastal Management (NCSCM) has developed an interface in the Indian Wetlands Portal for uploading the said ground truthing data. Moreover, an app namely “Survey123” has been developed for this purpose. Accordingly, the State Wetlands Authority has started the ground truthing work through “Survey123 App” with the help of District Authorities. In this financial year, ground truthing of 244 wetlands has been completed and the data has also been uploaded on the Indian Wetlands Portal.

3. Preparation of brief documents:

- (i) Brief documents of 23 wetlands covering area 500 ha and above have been done by the Institute of Environmental Studies and Wetland Management (IESWM).
- (ii) Brief documents of 221 wetlands having area 10 ha to 499 ha have been completed by the Kalyani University.

4. Geo-mapping of the significant water bodies:

To identify the zone of influence of water bodies, GIS mapping of nine significant water bodies, including Nayabandh Beel, Mathura Beel, Balli Beel, Shashanka Beel, Chupi Chor, Muriganga, Chatra Beel, Chander Beel, and Beri Panchpota Beel has been started through Fisheries Department.

5. Preparation of Wetlands Health Card:

Wetlands are the world's most unique and productive environments which provide a myriad of services through its natural ecosystem services. Therefore, to manage the wetlands in a sustainable manner, assessment of the health of the wetlands is necessary. To assess the health of the wetlands, preparation of Wetlands Health Report Card of 244 wetlands has been started with the help of Kalyani University.

6. Enrollment of Wetlands Mitra:

To engage the community for preservation of wetlands, a volunteer service namely Wetland Mitra has been introduced. Wetland Mitras play an important role in protecting valuable ecosystems. They identify and report threats to wetlands and educate the public about the importance of wetlands. In this financial year 59 people are enrolled as Wetlands Mitras.



Government of West Bengal
Environment Department
Pranisampad Bhaban, 5th Floor, LB-2, Sector-III, Salt Lake, Kolkata-10

NOTIFICATION

No:- 1678/EN/EKW-05/2016(Pt-I)

Dated:- 16.08.2023

In terms of the Section 2(2) (x) of East Kolkata Wetlands (Conservation and Management) (Amendment) Act, 2017 and Rule 3(1) of the East Kolkata Wetlands (Conservation and Management) Rules, 2006; a four Expert Members of the East Kolkata Wetlands Management Authority is constituted comprising the following members for three years with effect from 18.08.2023

- | | |
|---------------------|--|
| 1. Wetland Ecology- | Dr. Neera Sen Sarkar, Department of Botany, Kalyani University |
| 2. Hydrology- | Dr. Kalyan Rudra, Chairman, WBPCB, HYDROLOGY Expert |
| 3. Fisheries- | Director of Fisheries or his representative of Department of Fisheries, Govt. of West Bengal |
| 4. Socio-economics- | Dr. Debarati Das, Department of Political Science, University of Calcutta |

This has approval of the Hon'ble Minister-in-Charge, Environment Department.

By order of the Governor,
Sd/-
(Roshni Sen)
Principal Secretary
to the Govt. of West Bengal

No:- 1678/1(7)EN/EKW-05/2016(Pt-I)

Dated:- 16.08.2023

Copy forwarded for information to:

- (1) Dr. Neera Sen Sarkar, Department of Botany, Kalyani University, Kalyani, Dist- Nadia, West Bengal, Pin- 741245, Email address: neerasen.2020@gmail.com
- (2) Dr. Kalyan Rudra, Chairman, WBPCB HYDROLOGY Expert
- (3) Director of Fisheries, Directorate of Fisheries, Meen Bhavan, 31, GN Block, Sector V, Bidhanagar, Kolkata
- (4) Dr. Debarati Das, Department of Political Science, University of Calcutta, Alipore Campus, 1, Reformatory Street, Kolkata-700027 Email Address: das.debarati2010@gmail.com
- (5) The CTO, EKWMA, Pranisampad Bhavan, Salt Lake, Kol-106
- (6) Sr. P.S. to the Pr. Secretary, Environment Deptt., Pranisampad Bhaban, 5th Floor, LB-2, Sector-III, Salt Lake, Kolkata-106
- (7) Sr. PS to the Principal Secretary and Director, IESWM, DD-24, DD Block, Sector-I, Bidhanagar, Kol-64


Deputy Secretary

Minutes of 31st Meeting of East Kolkata Wetlands Management Authority (EKWMA) held at the Conference Hall of Chief Secretary to the Government of West Bengal at Nabanna on 31.10.2023 at 5:00 p.m.

The list of attendees is attached.

The Hon'ble Minister-in-Charge, Department of Environment chaired the meeting and welcomed all the attendees. The Chief Secretary, Govt. of West Bengal co-chaired the meeting. Principal Secretary, Department of Environment made a presentation on the following agenda items:

1. Minutes of the 30th meeting of the EKWMA held on 03.06.2022 was confirmed.
2. Principal Secretary, Environment Deptt. briefed the members about different activities and initiatives being carried out by EKWMA:
 - Regarding enforcement of the East Kolkata Wetlands (Conservation and Management) Acts 2006 and the Wetlands (Conservation and Management) Rules, 2017 within the East Kolkata Wetlands area following actions have been taken;
 - a. 499 complaints have been lodged with concerned police stations.
 - b. 229 notices to stop work / show cause/ provide hearing opportunity have been issued.
 - c. 86 reasoned orders for demolition / restoration have been issued.
 - d. 8 demolition and restoration works in water bodies have been done.
 - In pursuance of the order of Hon'ble High Court dated 25.07.2023 in WPA No. 358 of 2023 in the matter of Priyanjana Majumdar & Anr. Vs State of West Bengal & Ors, East Kolkata Wetlands Vigilance Committee has been constituted by EKWMA for prevention and removal of illegal constructions / encroachments and for effective implementation of the management plan of EKW in conjunction with other State Departments such as Irrigation & Waterways, Fisheries, Panchayat & Rural Development, West Bengal Pollution Control Board, Kolkata Municipal Corporation, Bidhannagar Municipal Corporation, District Magistrate and Superintendent of Police, North & South 24 Parganas and the petitioner.
 - With a vision to educate people in the EKW and its surroundings including Kolkata regarding importance of East Kolkata Wetlands being a Ramsar site and a wetland of international importance, the following programs have been undertaken by EKWMA:
 1. Erecting banners and hoardings displaying message on importance of the EKW at different places.
 2. Arranging bicycle trip as part of the **Mission LiFE** (Lifestyle for Environment) on the occasion of World Environment Day to make people aware about the importance of wetlands and its ecosystems.
 3. Distributing leaflet among the local people with information about the East Kolkata Wetlands.
 - To demarcate the area of East Kolkata Wetlands on the field as shown in Schedule-II of East Kolkata Wetlands (Conservation and Management) Act, 2006, 1048 monolith pillars have

been erected along the boundary of the EKW through the District Administration. The work is still in progress.

- EKWMA selected two Civil Society Organizations namely, Amra Susama Jalprapat and BITAN Institute of Training Awareness and Networking for Solid Waste Management Project at Kheadaha II Gram Panchayat and Bamanghata Gram Panchayat within EKW area. The work is being executed.
- To improve livelihood and economy of wetland community in East Kolkata Wetlands, work on establishing a hatchery at 4no. bheri, Sector-IV has been undertaken through the NGO SCOPE. The work is to be done in convergence mode.
- As per the decision taken in the meeting held on 03.06.2022, West Bengal Pollution Control Board (WBPCB) is required to regularly monitor the water quality of water bodies in the East Kolkata Wetlands area at different locations. WBPCB shall submit the water quality monitoring report to the Member Secretary, EKWMA on a monthly basis. Accordingly, EKWMA has requested WBPCB to carry out regular testing of water quality and send the reports to EKWMA.
- It was decided in the meeting held on 03.06.2022 that to enforce prohibition on conversion of land use / change of character of land / construction of permanent nature within 37 Mouzas of EKW, an online flag / pop-up message would be incorporated in the existing property Registration Portal by Finance Department and in the Banglarbhumi Portal by the Land and Land Reforms Refugee Relief and Rehabilitation Department. Accordingly, Deptt. of L&LR has incorporated a pop-up message at the time of registration of land on wbregistration portal within EKW area.
- West Bengal State Electricity Distribution Company Limited has been intimated that electricity connection within the EKW area should not be given without clearance letter from the EKWMA.

3. The members were also briefed about activities being carried out for implementation of Integrated Management Plan of East Kolkata Wetlands as follows:

- One day stakeholders' workshop was organized on 13.01.2023 at Biswa Bangla Milan Mela Prangan. Officials of the concerned departments, NGOs working in the EKW and representatives of local communities participated in the workshop. The objective of the workshop was to identify problems of the local communities and to resolve their problems through intervention of the concerned departments, NGOs and local communities.
- Installation of signages in different location of EKW area to generate awareness on the importance of the East Kolkata Wetlands is proposed in the IMP. Public Works Department has submitted a proposal for erection of 35 signages within EKW containing message for saving water bodies with a total estimate of Rs.3,06,24,879. The work has received

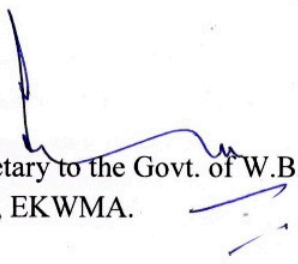
administrative and financial approval from Finance Department. A work order has been issued to PWD for execution of the work.

- The members were informed that IMP includes a component on conducting a study on heavy metal contamination in vegetables and fishes grown in the EKW area with possible remedial measures. EKWMA has requested IESWM for conducting the study and has released fund of Rs. 10 lakhs from 1st year of IMP.
- The IMP of EKWMA includes a component on establishment of a Nature Interpretation Centre. The Nature Interpretation Centre will be set up at Nalban Bheri under State Fisheries Development Corporation (SFDC), Sector-V, Salt lake. The facilities to be developed in the NIC include exhibits, viewing gallery, watchtower, cycling tracks / nature trails, waste recycling model of EKW, children's area, auditorium, souvenir shop etc. The members were briefed that an e-RFP for selecting an agency for preparation of DPR with design, drawing, estimation and supervision for establishment of NIC has already been uploaded on WB Tender Portal. The last date for submission of online bid is 28.11.2023.
- To maintain optimum level of water conducive to pisciculture and for overall water management within the bheries, canal de-siltation is imperative from time to time. There is a provision for de-siltation of 14 canals in the IMP of the EKW. As decided in the previous meeting, EKWMA has requested Water Resources Investigation & Development Department (WRI&DD) to execute de-siltation of 14 canals within the East Kolkata Wetlands area. Accordingly, WRI&DD has already started the work for de-siltation of two canals namely Bidyadhari and Tihuria.
- De-siltation of bheries is a major component of the IMP. EKWMA has released approx. 70 lakhs to State Fisheries Development Corporation to de-silt four ponds of Nalban Bheri. Moreover, WRIDD has been requested to executed bheri de-siltation further and to submit an estimate in this regard.
- A 300 KLD Leachate Treatment Plant had been set up at Dhapa by KMC. To maintain the level of effluents at the desirable limits of Leachate Treatment Plant at Dhapa by the KMC, a small financial support will be provided to KMC by the EKWMA, as per the budget provision of the IMP.
- To generate awareness on the importance of EKW and monitoring of EKW area, Environment Governed Integrated Organization (EnGIO) has been engaged for content generation of website and social media, publication of newsletter, design an EKW interactive app, community engagement meeting as proposed in IMP.
- As proposed in the IMP, a study on assessment of production of fishes, agriculture (paddy), horticulture, medicinal plants, floriculture in EKW has to be undertaken with the help of local community to increase the production of fishes, agriculture (paddy), horticulture,


medicinal plants, floriculture products etc. In this regard, Central Inland Fisheries Research Institute (CIFRI) had submitted a proposal which has been approved by the chairperson and work order would be issued shortly.

- i) A study on feasibility assessment of indigenous fish species and establishing fish stock at different bheries of EKW area is proposed to increase the production of indigenous fishes.
- ii) If production of indigenous fishes is feasible within the EKW area, four hatcheries involving Self Help Groups (SHG) is to be established as proposed in IMP. Accordingly, proposal submitted by CIFRI has been approved.
- For management of invasive fish species in EKW area, the proposal submitted by CIFRI has been approved.
- To document and sustain the diversity of waterfowls and smaller mammals in EKW area, proposal submitted by Nature Environment Wildlife Society (NEWS) a civil society organization has been approved.
- Regarding upgradation of Laboratory and Wetland Monitoring Centre, fund has already been released for upgradation of the laboratory of IESWM for the purpose of monitoring of wetland. EKWMA has also sought a proposal from WEBEL for further upgradation of laboratory in GIS format for wetland monitoring.

The meeting ended with vote of thanks.



Chief Secretary to the Govt. of W.B.
& Member, EKWMA.



Hon'ble Minister-in-Charge,
Environment Department, &
Chairperson, EKWMA

Following persons were present in the meeting of the East Kolkata Wetlands Management Authority (EKWMA) held at the Conference Hall of Chief Secretary to the Government of West Bengal at Nabanna on 31.10.2023 at 5:00 p.m.:

1. Md. Ghulam Rabbani, Hon'ble Minister-in-Charge, Environment Department, the Government of West Bengal and Chairperson, WBSWA & EKWMA
2. Dr. Hari Krishna Dwivedi, Chief Secretary to the Government of West Bengal and Vice-chairperson, WBSWA & Member EKWMA
3. Shri Vivek Kumar, Additional Chief Secretary, Department of Forest and Member, WBSWA & EKWMA
4. Dr. Manoj Pant, Additional Chief Secretary, Department of Finance and Member, WBSWA.
5. Ms. Roshni Sen, Principal Secretary, Department of Environment and Member Secretary, WBSWA & EKWMA
6. Dr. Kalyan Rudra, Chairman, West Bengal Pollution Control Board (WBPCB) & Chairman of the Technical Committee, WBSWA and Expert Member, EKWMA.
7. Dr. Rajesh Kumar, Member Secretary, WBPCB and Member, WBSWA.
8. Shri Debol Roy, PCCF, Wildlife and Chief Wildlife Warden, West Bengal & Member, WBSWA.(online)
9. Shri Prabhat Kumar Mishra, Principal Secretary, Department of Water Resources Investigation and Development & Department of Irrigation & Waterways and Member, WBSWA & EKWMA
10. Smt. Nandini Chakravorty, Principal Secretary, Department of Tourism and Member, WBSWA & EKWMA
11. Shri Binod Kumar, Commissioner, Kolkata Municipal Corporation & Permanent Invitee, EKWMA.
12. Smt. Neelam Meena, Principal Secretary, Government of West Bengal and Director, Institute of Environmental Studies and Wetlands Management.
13. Smt Smaraki Mahapatra, Secretary, Department of Land and Land Reforms & Refugee Relief and Rehabilitation and Member, WBSWA & EKWMA
14. Shri Avanindra Singh, Secretary, Department of Fisheries and Member, WBSWA & EKWMA
15. Dr. P. Ulaganathan, Secretary, Department of Panchayats and Rural Development and Member, WBSWA & EKWMA
16. Ms. Srabani Dhor, Special Secretary, Department of Science and Technology and Biotechnology.
17. Mr. Santhosha G.R., Additional Secretary, Department of Panchayat & Rural Development
18. Smt. Tripti Sah, Chief Environment Officer, Department of Environment and Member Secretary, West Bengal Biodiversity Board and Member, WBSWA and Chief Technical Officer, EKWMA.
19. Shri Sharad Kumar Dwivedi, District Magistrate, North 24 Parganas & Permanent Invitee, EKWMA. (online)
20. Shri Sumit Gupta, District Magistrate, South 24 Parganas & Permanent Invitee, EKWMA. (online)
21. Smt. Pausali Pahari, Senior Law Officer, Department of Environment.
22. Mr. Zulfikar Hasan, PS to MIC, Department of Environment.

23. Ms. Subrata B. Dutta, Sr. Scientist, Department of Science and Technology and Biotechnology.
24. Prof. Gupinath Bhandari, Expert Member, WBSWA.
25. Dr. Srikanta Samanta, Expert Member, WBSWA.
26. Prof. Lakshmi Sivaramakrishnan, Expert Member, WBSWA.
27. Dr. Neera Sen Sarkar, Expert Member, EKWMA.
28. Dr. Saptarshi Biswas, Expert Member, EKWMA.
29. Dr. Debarati Das, Expert Member, EKWMA.
30. Dr. Subhasish Chattopadhyay, CME (SWM), KMC.
31. Mr. Robert Lee - Representative of M/s Greentech Farms & Agro Private Limited
32. Dr. Nitai Kundu,- Representative of M/s Greentech Farms & Agro Private Limited
33. Mr. Naresh Agarwal - Representative of M/s Kushal Agrigenix LLP
34. Mr. Kushal Agarwal - Representative of M/s Kushal Agrigenix LLP
35. Mr. Aditya Goswami - Representative of M/s Kushal Agrigenix LLP
36. Mr. Sanjay Sharma - Representative of M/s Kushal Agrigenix LLP

Annexure-III

Court Cases Started during 2023-2024 in the High Court regarding EKW

SL No.	Case No	Cause Title	Case in Brief
1	WPA 3175 of 2023	Palan Naskar Vs. The State of WB & Ors	To demolish an illegal mobile tower
2	WPA 21159 of 2023	Sterling Finvest Pvt Ltd Vs. The State of WB & Ors	To declare the land of the petitioner outside of the purview of the EKW Act, 2006.
3	WPA 21714 of 2023	Buddiswar Mondal Vs. The State of WB & Ors	To restrain the reasoned order dt 08.08.23 issued by EKWMA with a direction to demolish the structure made by Buddiswar Mondal
4	WPA 23271 of 2023	Asmat Ali Molla Vs. Union of India & Ors	To cancel the Notice dt. 12.05.23 issued by EKWMA. The petitioner also claimed that Wetlands Rules of 2010 prevails over EKW Act
5	WPA 23875 of 2023	Raghunath Dewan Vs The State of WB & Ors	To set aside the Reasoned Order dt 07.08.23 issued by EKWMA
6	WPA 17901 of 2023	Syamal Kr Lahiri Vs The State of WB & Ors	To direct the Respt Authorities to take steps against the unauthorized construction on the land of the petitioner.
7	WPA 6580 of 2023	Motilal Mondal Vs The State of WB	To cancel the order passed by Respondent no. 8 (Certificate Officer, DM Office, Dist South 24 Pgs) for demanding cost of restoration from the petitioner.
8	WPA 1265 of 2024	Subrata Mondal Vs State of WB & Ors	To cancel the reasoned order dt. 22.12.23 issued by EKWMA.
9	WPA 1291 of 2024	Mallika Das Vs State of WB & Ors	To cancel the reasoned order dt 22.12.23 issued by EKWMA.
10	WPA 16288 of 2023	Sterling Finvest Pvt Ltd Vs. State of WB & Ors	Direct the respondent authorities not to withhold the grant of permission for effectuating the proposed development work on the land of the petitioner.
11	WPA 6244 of 2024	Prakash Sinha Vs. State of WB & Ors	To stay and seizure dt 29.02.24 in connection with Narendrapur PS Case no. 214 of 2024. This matter is not related to EKWMA.
12	WPA 6890 of 2024	Sri Jay Kant Mahto Vs Union of India & Ors	To declare EKW Act ultra vires
13	WPA(P) 330 of 2023	Sagufa Hossain Vs The State of WB & Ors	To direct EKWMA to stop illegal encroachment in Mouza Tardaha Kapashati, Hadia, Dhapa Manpur against several illegal constructions.

Minutes of 4th Meeting of West Bengal State Wetlands Authority (WBSWA) held at the Conference Hall of Chief Secretary to the Government of West Bengal at Nabanna on 31.10.2023 at 5:00 p.m.

The list of attendees is attached.

The Hon'ble Minister-in-Charge, Department of Environment chaired the meeting and welcomed all the attendees. The Chief Secretary, Govt. of West Bengal co-chaired the meeting. Principal Secretary, Department of Environment made a presentation on the following agenda items:

1. Minutes of the 3rd meeting of the WBSWA held on 03.06.2022 was confirmed.
2. The Principal Secretary, Environment Deptt. & Member Secretary, SWA briefed the members about activities of State Wetlands Authority (SWA):

❖ In compliance with the direction of the Hon'ble Supreme Court of India in the matter of *M.K. Balakrishnan & Ors. Vs. Union of India & Ors.* dated 08.02.2017, the Hon'ble National Green Tribunal (NGT) in matter of *Raja Muzaffar Bhat Vs. State of Jammu and Kashmir & Ors.* dated 25.11.2021, and in the matter of *People United for Better Living in Calcutta & Another Vs. The Union of India & Others* dated 09.05.2022 and Rule 5(4) of the Wetlands (Conservation and Management) Rules, 2017, the following activities have been carried out by the WBSWA:

- Geo-tagging of 8911 wetlands is completed by Fisheries Department. Fisheries Department, West Bengal has carried out the work of assigning Unique Identification Number to all the said 8,911 wetlands of the State.
- **Brief documents** for 23 wetlands having area above 400 ha have been prepared by the Institute of Environmental Studies and Wetland Management (IESWM). Brief documents for 221 wetlands having area above 10 ha are being prepared by Kalyani University. At present, brief documents for 32 such wetlands have been prepared and brief documents for 191 wetlands are under preparation.
- **Geo-mapping:** Fisheries Department, West Bengal is carrying out the work of demarcation of wetlands, their zone of influences and their geo mapping. In the first phase, this task has started with Hooghly districts, North 24 Parganas and Alipurduar.
- **Notifying wetlands:** The members were informed that WBSWA has initiated the process of notifying significant water bodies in different districts of the State.

- a) Dankuni Wetland: Based on the physical survey, brief documents as well as drone survey conducted by the West Bengal Pollution Control Board, an area of approximately 1228 ha in Mouza-Mollarber, JL no. 22; Mouza-Panchghara, JL no. 80; Mouza-Jaykrishnapur, JL no. 69 and Mouza-Jhakari, JL no. 103 in Block Srirampur-Uttarpara, Chanditala-II, under District Hooghly has been found to be free of waterlogging after de-siltation of Dankuni Canal. However, an area of approx. 118 ha continues to remain waterlogged, for a considerable period of time even after de-siltation. Dankuni Wetland including its zone of influence is situated in the above said four mouzas. As per the recommendation of the Technical Committee of the WBSWA, the Gazette publication of Draft Notification of Dankuni Wetland has been issued by the Department of Environment, Government of West Bengal on 16.10.2023, in exercise of powers conferred under Rule 7 of the Wetlands (Conservation and Management) Rules, 2017 wherein 60 days have been given to the general public for submission of any claims and objections.
- b) In compliance with the direction of the Hon'ble NGT, Eastern Zone Bench dated 22.03.2023 in O.A. 30/2023/EZ, Chatra Beel in District Malda is proposed to be declared as a significant wetland under the Wetlands Rules, 2017. Accordingly, the SWA will prepare a brief document of this wetland and demarcate the area of the wetland and its zone of influence.
- c) Five water bodies namely Nayabandh Beel, Mathura Beel, Balli Beel, Shashanka Beel and Beri Panchpota Beel were proposed to be notified on priority basis.
- d) Three water bodies namely Sujanpur, Hasadanga and Naopara in Nadia District were proposed to be notified by considering them together as a wetland complex.

Decision of the WBSWA: The WBSWA decided to initiate the process for notifying these wetlands as per the Wetlands (Conservation & Management) Rules, 2017.

3. Formation of District Level Wetlands Committee:

Keeping in mind implementation of Rule 5(4) of Wetlands Rules, 2017 and in compliance with several orders of the judiciary, it was proposed that District Level Wetlands Committees may be formed for wetlands conservation and protection. These committees shall provide support to the WBSWA in protection, conservation and management of wetlands in the respective districts.

Decision of the WBSWA: The proposal was accepted unanimously by the WBSWA.

4. Merging East Kolkata Wetlands Management Authority (EKWMA) into West Bengal State Wetlands Authority (WBSWA):

Though both the EKWMA and the WBSWA are formed under different Acts and Rules, all members of the EKWMA are also the Members of the WBSWA, except the Expert Members. The Member Secretary, SWA proposed that the EKWMA may simultaneously function under the WBSWA and the office of EKWMA can act as the Secretariat of WBSWA.

Decision of the WBSWA: It is decided that a formal proposal will be initiated for merging EKWMA into SWA.

5. Setting up of Maa Medical College Hospital and Wellness Centre in EKW area:

It was informed to the members that M/s. Greentech Farms & Agro Private Limited has proposed to set up “Maa Medical College Hospital and Wellness Centre” at Mouza-Dhapa, which is within the East Kolkata Wetlands. The project includes setting up of a medical college, residential support for faculty, staff and students, sports complex, an old age home, etc. The tentative cost of the project is Rs. 1,686 crores. However, it is found that the project area mentioned in the initial project proposal differs from the supporting documents submitted by the Project Proponent. As per Record of Rights (RoR), out of the 72.32 acres of the project area, 71.85 acres of land is classified as either water body or its embankment.

The proposal was placed before the Technical Committee of SWA on 28.08.2023. The TC, SWA did not consider the project due to the applicable Rules and Regulations. However, it opined that legal opinion might be taken from the Law Cell, Department of Environment and if the SWA finds merit in the project, it may send the proposal for consideration to the Central Government as a case of omission under Rule 4 of the Wetlands Rules, 2017. The Law Cell has opined that as per section 4(2) of Wetlands Rules, 2017, conversion for non-wetland uses including encroachment of any kind, setting up of industries and any construction of permanent nature within EKW are prohibited activities. However, proviso to Rule 4 states that the Central Government may consider proposals from the State Government for omitting any prohibited activities mentioned in Rule 4(2) of Wetlands (C&M) Rules, 2017 on recommendation of the SWA.

The Project Proponent M/s. Greentech Farms & Agro Private Limited presented their proposal before the WBSWA during the meeting.

- The Project Proponent informed SWA that their project shall be implemented under four sister companies of the Greentech Farms and Agro Private Limited Group for better Management namely;
 1. M/s. Greentech Farms & Agro Pvt. Ltd.
 2. M/s. Lee Greentech Health Education Pvt. Ltd.
 3. M/s. Lee Greentech Medical Pharma Research Pvt.Ltd.
 4. M/s. Lee Greentech Eco-resort and Hospitality Pvt. Ltd.
- The PP spoke about the components proposed under the project area -
 - a) Medical college, nursing school, hospital, super specialty hospital.

b) Dental college, nursing college, paramedical college, college of physiotherapy, college of pharmacology, tele medicine, medical instrumentation and hospital management.

c) Biological test lab, pharmacological test lab, protocol development lab for pharmacological production research lab on trial protocol, facilities for health tourism and residential facilities.

d) Wetland Interpretation Centre, promotion of initiative of Ayush as per the guidelines of Govt. of India in respect of education training, demonstration including promotion of yoga, demonstration and promotion of production of varieties of healthy food, promotion of eco-friendly healthy resort, initiative of health retreat centre for the patients after recovery and promotion of initiative of eco-accommodation for people.

- **Benefit of the Project:**

a) Public Health related Benefit: This shall be achieved by integrating with primary health care, integrating hospital with other health care organizations, outreach program like health camps, camp surgery, immunization camps, etc. There shall be reservation of beds for the patients from villages in the EKW area at concessional rate and Swastha Sathi Card facilities will be entertained.

b) The PP also stated that the implementation of the project would provide job opportunity to the local population.

Decision of the WBSWA:

The project falls under the prohibited activity mentioned in Rule 4(2) of Wetlands (Conservation & Management), Rules 2017. The SWA also noted that there is a disparity between the project area mentioned by the PP in the initial project proposal and the supporting documents submitted and that approximately 71.85 acres of the project area is recorded as water body as per RoR. After detailed discussion, the SWA opined that the PP would be requested to submit a revised proposal which does not fall under the prohibited activities under the East Kolkata Wetlands (Conservation and Management) Act, 2006 and Wetlands (Conservation and Management) Rules, 2017.

6. Setting up of Eco-tourism Project in EKW area:

M/s. Kushal Agrigenix LLP has proposed to set up an eco-tourism project in Mouza Tardaha Kapashati within the EKW area. As stated by the Project Proponent, the project would be implemented as per the guidelines of “Amrit Dharohar Scheme” of the Central Government, which allows nature-based tourism in the Ramsar sites. The project will have components like Interpretation Centre, public gathering areas for community function, provision for angling decks and observation point, culinary experience outlets specializing in local cuisine, etc. The tentative budget of the proposed project is Rs. 50 crores.

The proposal was placed before the Technical Committee of West Bengal State Wetlands Authority on 28.08.2023 wherein the project proponent was told to resubmit the proposal incorporating the suggestions of the TC, WBSWA.

The Project Proponent M/s. Kushal Agrigenix LLP then presented the revised project proposal before the authority after incorporating the suggestions of the TC, SWA.


- The aim of the project is to create public awareness and deliver sustainable experience to visitors with facilities such as Interpretation Center, EKW museum, walking trails, bird watch tower, pisciculture orientation, etc. conforming to the EKW objectives.
- Kushal Arigenix LLP proposes to develop Kolkata's 1st project of its kind with 100% green building and net zero emission project under the guidelines laid out in the Amrit Dharoar Scheme and Eco-tourism policy.
- The PP has stated that no water body will be filled up in the proposed project site. This project will recycle 100% waste and the project site will be plastic free zone.
- The PP affirmed that as no construction of permanent nature can come up within EKW area, there would not be any use of concrete and steel for any construction. The resources to be utilized within the project site will also come from EKW area as far as practicable.
- Maximum consumption of electricity within the project will come from solar power.

The changes in the proposal were accepted by the Chairman, Technical Committee of SWA, the other members present and the Senior Law Officer of the Department.


Decision of the WBSWA:

After detailed discussion and taking the above points in consideration, the SWA decided that the project proponent would be requested to submit Environment Management Plan (EMP) for future course of action.

The meeting ended with vote of thanks.



Chief Secretary to the Govt. of W.B.
& Vice-chairperson, WBSWA.



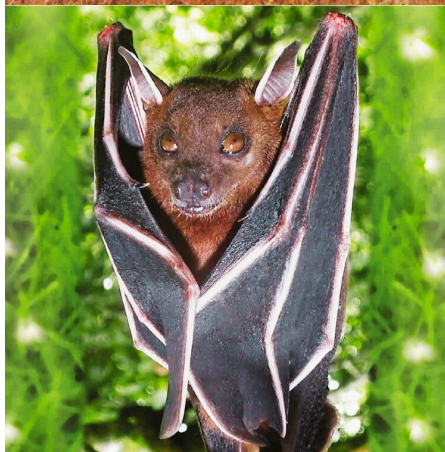
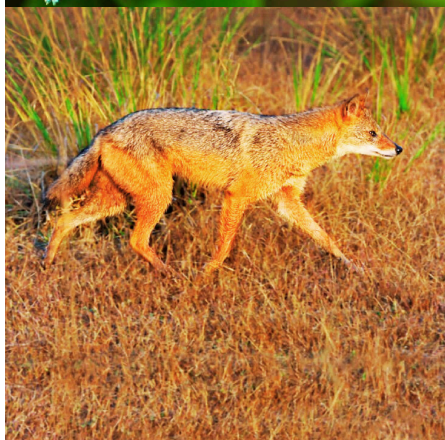
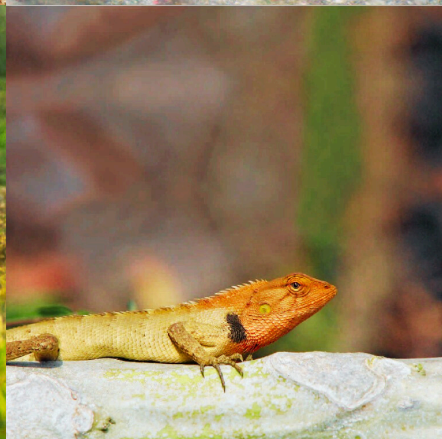
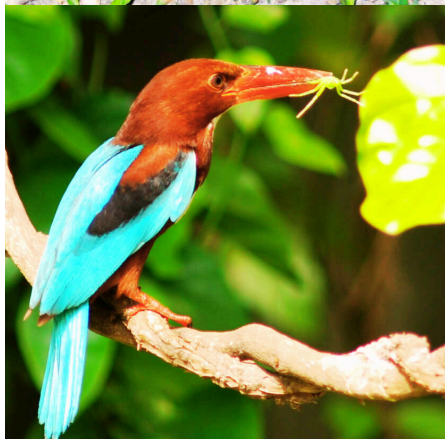
Hon'ble Minister-in-Charge,
Environment Department, &
Chairperson, EKWMA

The West Bengal State Wetlands Authority meeting on 31.10.2023 was attended by the following persons:

1. Md. Ghulam Rabbani, Hon'ble Minister-in-Charge, Environment Department, the Government of West Bengal and Chairperson, WBSWA & EKWMA
2. Dr. Hari Krishna Dwivedi, Chief Secretary to the Government of West Bengal and Vice-chairperson, WBSWA & Member EKWMA
3. Shri Vivek Kumar, Additional Chief Secretary, Department of Forest and Member, WBSWA & EKWMA
4. Dr. Manoj Pant, Additional Chief Secretary, Department of Finance and Member, WBSWA.
5. Ms. Roshni Sen, Principal Secretary, Department of Environment and Member Secretary, WBSWA & EKWMA
6. Dr. Kalyan Rudra, Chairman, West Bengal Pollution Control Board (WBPCB) & Chairman of the Technical Committee, WBSWA and Expert Member, EKWMA.
7. Dr. Rajesh Kumar, Member Secretary, WBPCB and Member, WBSWA.
8. Shri Debol Roy, PCCF, Wildlife and Chief Wildlife Warden, West Bengal & Member, WBSWA.(online)
9. Shri Prabhat Kumar Mishra, Principal Secretary, Department of Water Resources Investigation and Development & Department of Irrigation & Waterways and Member, WBSWA & EKWMA
10. Smt. Nandini Chakravorty, Principal Secretary, Department of Tourism and Member, WBSWA & EKWMA
11. Shri Binod Kumar, Commissioner, Kolkata Municipal Corporation & Permanent Invitee, EKWMA.
12. Smt. Neelam Meena, Principal Secretary, Government of West Bengal and Director, Institute of Environmental Studies and Wetlands Management.
13. Smt Smaraki Mahapatra, Secretary, Department of Land and Land Reforms & Refugee Relief and Rehabilitation and Member, WBSWA & EKWMA
14. Shri Avanindra Singh, Secretary, Department of Fisheries and Member, WBSWA & EKWMA
15. Dr. P. Ulaganathan, Secretary, Department of Panchayats and Rural Development and Member, WBSWA & EKWMA
16. Ms. Srabani Dhor, Special Secretary, Department of Science and Technology and Biotechnology.
17. Mr. Santhosha G.R., Additional Secretary, Department of Panchayat & Rural Development

18. Smt. Tripti Sah, Chief Environment Officer, Department of Environment and Member Secretary, West Bengal Biodiversity Board and Member, WBSWA and Chief Technical Officer, EKWMA.
19. Shri Sharad Kumar Dwivedi, District Magistrate, North 24 Parganas & Permanent Invitee, EKWMA. (online)
20. Shri Sumit Gupta, District Magistrate, South 24 Parganas & Permanent Invitee, EKWMA. (online)
21. Smt. Pausali Pahari, Senior Law Officer, Department of Environment.
22. Mr. Zulfikar Hasan, PS to MIC, Department of Environment.
23. Ms. Subrata B. Dutta, Sr. Scientist, Department of Science and Technology and Biotechnology.
24. Prof. Gupinath Bhandari, Expert Member, WBSWA.
25. Dr. Srikanta Samanta, Expert Member, WBSWA.
26. Prof. Lakshmi Sivaramakrishnan, Expert Member, WBSWA.
27. Dr. Neera Sen Sarkar, Expert Member, EKWMA.
28. Dr. Saptarshi Biswas, Expert Member, EKWMA.
29. Dr. Debarati Das, Expert Member, EKWMA.
30. Dr. Subhasish Chattopadhyay, CME (SWM), KMC.
31. Mr. Robert Lee - Representative of M/s Greentech Farms & Agro Private Limited
32. Dr. Nitai Kundu, - Representative of M/s Greentech Farms & Agro Private Limited
33. Mr. Naresh Agarwal - Representative of M/s Kushal Agrigenix LLP
34. Mr. Kushal Agarwal - Representative of M/s Kushal Agrigenix LLP
35. Mr. Aditya Goswami - Representative of M/s Kushal Agrigenix LLP
36. Mr. Sanjay Sharma - Representative of M/s Kushal Agrigenix LLP

Biodiversity of East Kolkata Wetlands





East Kolkata Wetlands Management Authority

Department of Environment, Govt. of West Bengal
Prani Sampad Bhawan (5th floor), LB-2, Sector-III, Salt Lake City,
Kolkata- 700106, West Bengal, India
Phone : 033 2335 3003, 2335 6403
E-mail : ctoekwma@gmail.com
Website : www.ekwma.in

