

CONSERVATION OF WETLANDS IN KOLKATA



***BASANTI DEVI
COLLEGE***

NAME: PARAMITA DE

COLLEGE ROLL NO: 410310

UNIVERSITY ROLL NO: 212041-11-0050

REGISTRATION NO: 041-1211-0074-21

SUBJECT: ENVIRONMENTAL STUDIES(AECC2)

DEPARTMENT NAME: ENGLISH HONOURS

ACKNOWLEDGEMENT

I would like to express my sincere thanks and **gratitude** to our college (BASANTI DEVI COLLEGE) and our respected Principal (Dr. Indrila Guha) for giving me the golden opportunity to do this project on the topic (Conservation of Wetlands in Kolkata). Then I will thank my department and our subject teacher (Prof. Udit Mukherjee).

I have achieved a good amount of knowledge through the research and the help that I got from my project teacher (Prof. Udit Mukherjee).

Apart from this, I would like to express special thanks to my parents who have supported me and helped me out in my project despite their busy schedules.

DECLARATION

I, Paramita De of 2nd Semester, hereby declare that the project entitled "CONSERVATION OF WETLANDS IN KOLKATA" submitted by me to "BASANTI DEVI COLLEGE".

This is an authentic record of my genuine work done under the guidance of Prof. Udita Mukherjee and this project has not been copied from any article or journal.

Name: Paramita De

Date of Submission: 10.5.22

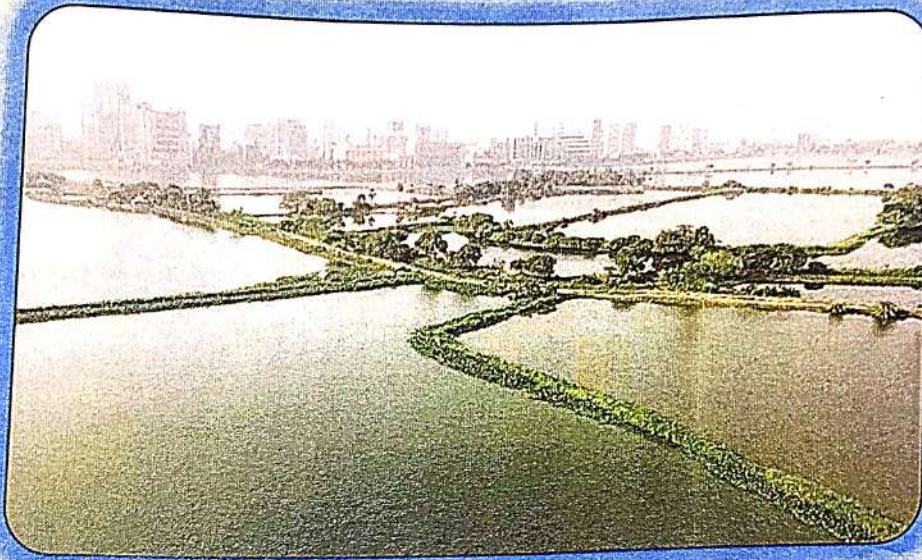
Paramita De
Signature

Date: 10.5.22

CONTENT

SERIAL NO	TOPIC	PAGE NO
1	ABSTRACT	4
2	INTRODUCTION	5
3	OBJECTIVE OF THE STUDY	6
4	MAP	7
5	PROBLEMS OF WETLAND ERADICATION IN KOLKATA	8
6	EVALUATION	9
7	LIMITATIONS	10
8	CONCLUSION	11
9	GLOSSARY	12
10	BIBLIOGRAPHY	13

ABSTRACT



East Kolkata Wetlands

Wetlands have been identified as one of the key life support systems of Kolkata in concert with agricultural lands and fish productions. Wetlands are most important natural resources. They are a vital element of national and global ecosystems and economies. Wetlands perform many functions that maintain the ecological integrity and also provide many goods and services (Ground water recharge, shoreline stabilization and flood storage are particularly important). In the State of West Bengal the only Ramsar site is the East Kolkata Wetlands. Ramsar site covering approximate 12500 ha not only provides livelihood to the people but also act as a life support system in this area.

INTRODUCTION

Wetlands

Wetlands are areas that are **inundated** with water permanently or seasonally. They occur where water meets land.



Importance of Wetlands

Wetlands are important because they are -

Improve water quality, provide wildlife habitat, maintain ecosystem productivity, reduce coastal storm damage, provide recreational opportunities, improve the water supply, provide opportunities for education etc.



In Kolkata wetlands play a very **crucial** role. The East Kolkata Wetlands, are a complex of natural and human made wetlands lying

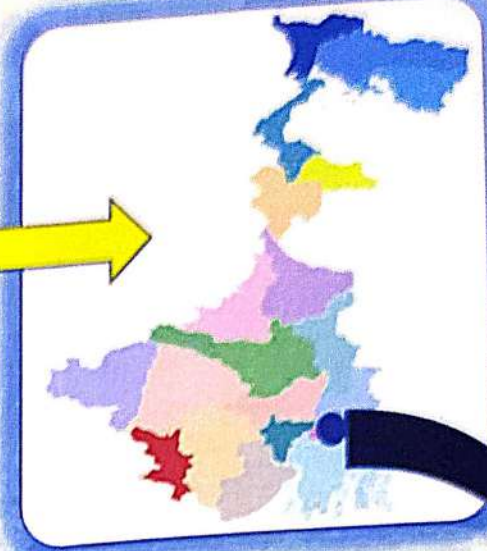
OBJECTIVE OF THE STUDY

- *Wetlands play a vital role in maintaining many natural cycles such as water filtration, water storage and act as key habitats for aquatic and **migratory species**.
- *Wetlands can be thought of as "biological supermarkets." They provide huge source of food and helps in biological productivity.
- *Rapid increase in urbanization in Kolkata impacts water quality which is a major cause of loss of wetlands. Hence, no further growth.
- *Wetlands can provide **tremendous** opportunity for education and research.
- *To conserve wetland ecosystems to ensure their **integrity**, productivity and **sustainability**.
- *To raise awareness among citizens on wetlands conservation.

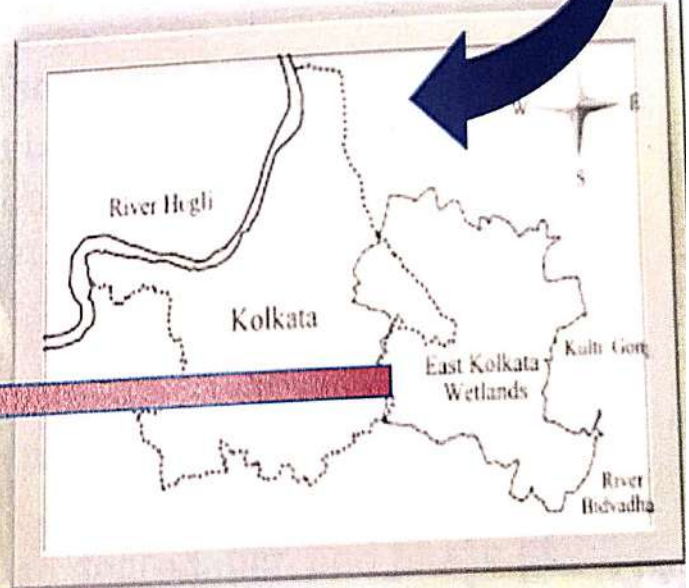
M.A.P



INDIA

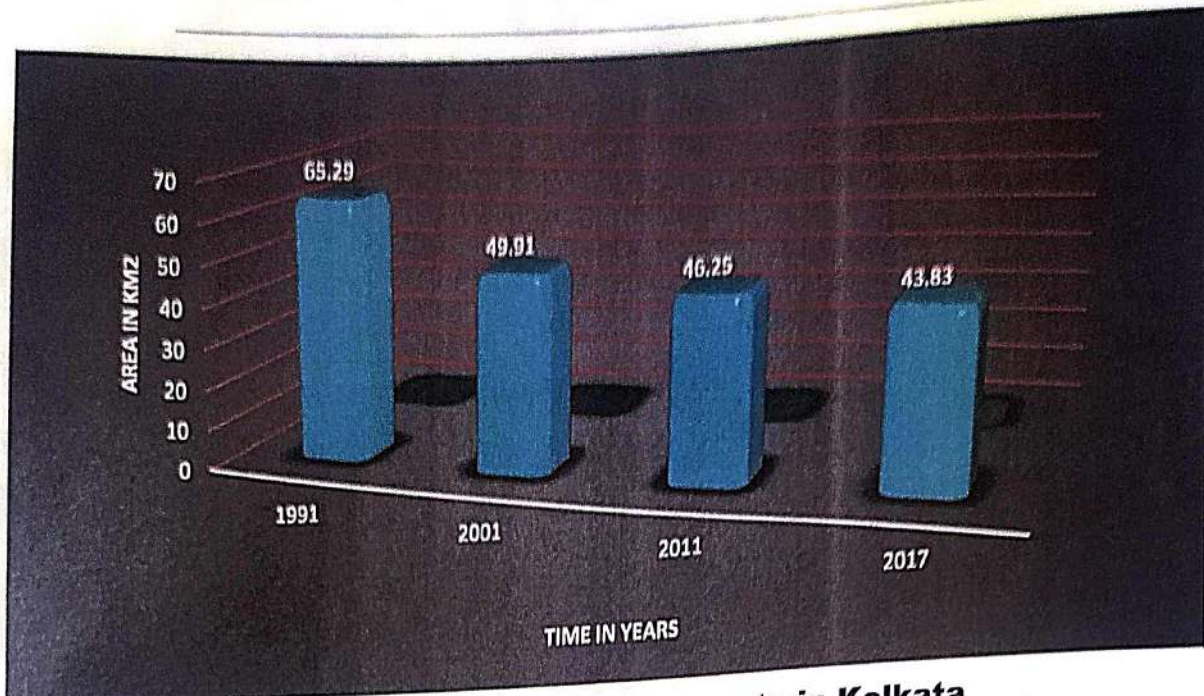


WEST BENGAL



MAP REPRESENTING EAST KOLKATA WETLANDS

PROBLEMS OF WETLAND ERADICATION IN KOLKATA



Bar graph of wetlands shrinkage rate in Kolkata

Source: <https://www.researchgate.net/publication/317717717>

The changes of East Kolkata Wetland areas have been determined from 1991 to 2017 with Landsat images and accuracy assessment through ground truth verification. It is seen that loss of wetland from 1991 to 2001 was 23.55% where it was 7.34% in 2011 to 2017.

This is mainly due to the result of land transformation for **aquaculture** activity. Hence, three phases of **degradation** have been observed in this study. These are: the phase of rapid degradation, the phase of controlled degradation and phase of transforming degradation. The reasons responsible for the shrinkage of East Kolkata Wetlands are- lust for land, dirty industries, climate etc. At the same time, it's highlighted the loophole of management actions.

EVALUATION

After my case study on the project, I came to a decision that Wetlands in Kolkata should be conserved and is of utmost importance.

Wetlands in Kolkata provides many ecosystems services which needs to be preserved to **mitigate** the effect of global warming, drought and flood abatement. It also helps in erosion control, improves water quality, habitat enhancement and serves as the backbone of food security of Kolkata city.



We should promote agricultural practices, encourage use of organic products, instead of chemical fertilizers and proper treatment of

sewage should be done to prevent further **deterioration** of Wetlands of Kolkata.

To **demarcate** the boundaries of the East Kolkata Wetlands on the field. To take measures to stop and prevent unauthorized act on the Wetlands of Kolkata. People should be aware to conserve Wetlands of Kolkata without compromising on development.

LIMITATIONS

***It is difficult to complete the entire project in a short-stipulated time.**

***It is time consuming since Wetlands of Kolkata is a vast **periphery** to cover.**

***During the present study on spot knowledge, research and data collection was not possible as no scope of conducting surveys due to shortage of time.**

CONCLUSION

The Global Water dataset helps to understand the wetland dynamics. It is one of the best integrated resource. From the analysis of the dataset, it is **evident** that the surface water area of Wetlands of Kolkata has decreased considerably. The surface water status of Wetlands of Kolkata is dynamic, and its **spatial** extent is different at different times of the year. The result also shows that the **transition** of the surface water has a negative relation with time. The effect of losing surface water is maximum near the Science City part of the East Kolkata Wetlands. Wetlands are the boon of city Kolkata and it needs to be conserved.

GLOSSARY

Alphabet	Term	Description
A	Aquaculture	The rearing of aquatic animals
	Authentic	of undisputed origin and not a copy
C	Crucial	of great importance
D	Degradation	The condition of degrading
	Demarcate	Set of boundaries
	Deterioration	The process of becoming progressively worse
E	Entitled	Having a right to certain benefits
	Evident	Clearly seen
G	Gratitude	The quality of being thankful
I	Integrity	The state of being undivided
	Inundated	Overflowed
M	Migratory	Denoting an animal that migrates
	Mitigate	Make less severe
P	Periphery	The outer limits
S	Shoreline	The edge of a sea
	Spatial	Occupying space
	Species	A kind or sort
	Sustainability	The ability to be maintained at a certain level
T	Transition	The process of changing from one state to another
	Tremendous	Very great in amount

BIBLIOGRAPHY

*https://en.wikipedia.org/wiki/East_Kolkata_Wetlands

*<https://rsis.ramsar.org/rsis/1208>

*<https://link.springer.com/article/10.1007/s11273-019-09668-1>

***East Kolkata Wetland: Demographic and Livelihood Profile**

Sources:

***Google**

***YouTube**

U. Mukherjee
5/7/22