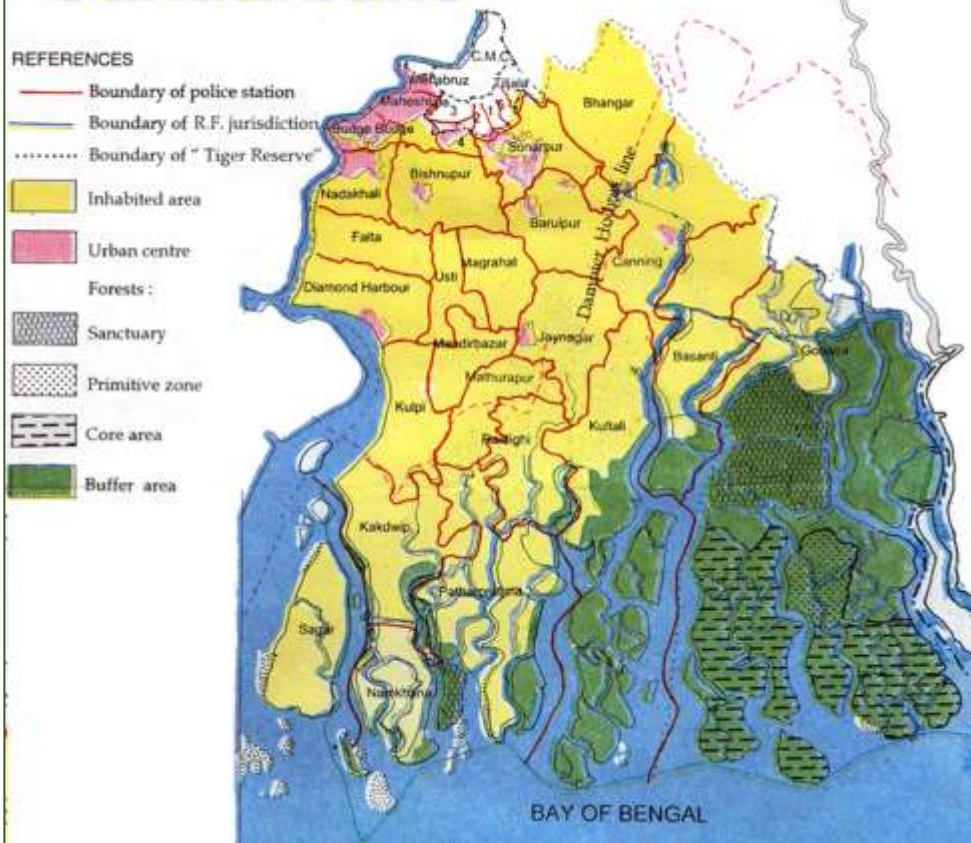


## Green Brigades – Instituting women governance in land and forestry management in Sundarban, India



Nature Environment &  
Wildlife Society  
[www.naturewildlife.org](http://www.naturewildlife.org)

## Sundarbans



**It is a Tiger Reserve,  
National Park ,  
UNESCO World Heritage Site,  
Ramsar Site  
and  
Biosphere Reserve,**

**An area of 9630 sq km ,  
protected area consists of 4264  
sq km and the human habituated  
area constitute 5366 sq km**



**AILA – a cyclonic storm happened**



**Year-  
2009**





Mangroves deforested due to aquaculture, habitation encroachments





Mangroves depleted in areas adjacent to the embankments

## Vulnerable embankments can only be protected by mangroves

### ➤ **STRATEGY :**

1. **Scale up** mangrove restoration.
2. Involve local communities who are co-actors in rebuilding functional ecosystems.
3. Policy level inclusions

## NATURE BASED SOLUTION

### **By default , women came in large numbers -**

1. Men migrated outside
2. Cash dearth in families – elderly persons and children remained with no income

- Men and women play different roles in forestry and agroforestry systems in developing countries.
- Compared with men, women are frequently disadvantaged – for a range of interrelated cultural, social, economic and institutional reasons – in their access to and control over forest resources, and in the economic opportunities available to them.

Yet, they constitute half of the human population





## Challenges

- Activities along the forestry value chain tend to be differentiated along gender lines.
- Men are mostly engaged in planting, maintaining and harvesting trees for commercial purposes.
- While women mainly take care of products for subsistence use, such as food, medicines, fuelwood, fodder, backyard kitchen etc.
- Distribution of labour considered such activities hazardous for women
- Social taboos

## Opportunities

- Mobilisation: Front liners living at the edge of the islands near to forests
- Caring attitude of women for long term protection of trees
- Scope for sustainable management of natural resources
- Achieve gender balance in forestry associations and forest user groups
- Enable women to participate fully in decision-making within these associations/groups
- Scope of training, and support for income generation



Collecting seeds



Organising into groups

Checking on the root-shoot ratio



Sowing seeds in nurseries



Planting  
saplings



Planting in the areas  
adjoining the embankments



No barriers existed





They could recreate the bio-shield and protect their village







Enjoyment, fun and pride







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These intertwined bonding with land and natural resources lead to a new culture of reverential use and maintenance and preservation of natural resources and the environment, ensuring that the subsequent generations can meet their needs.

Emerging the *Green brigades* .....



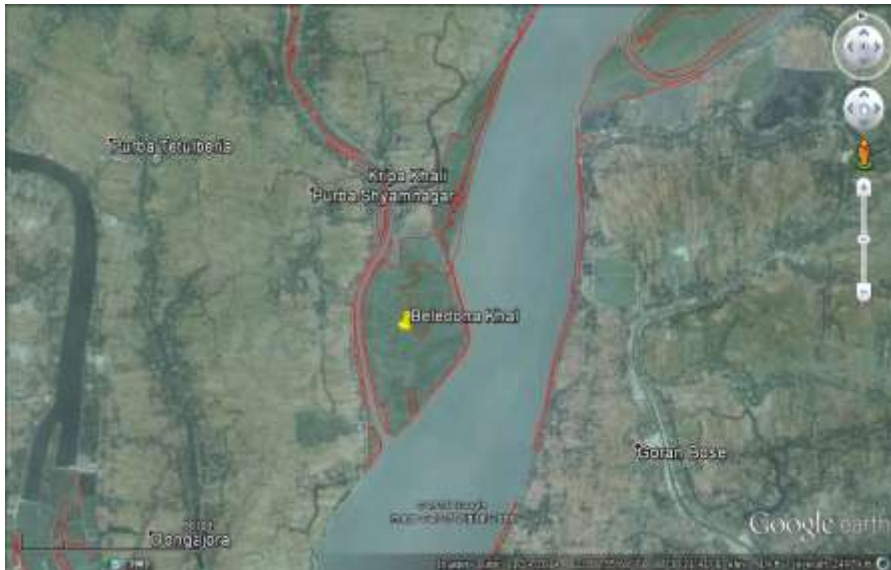






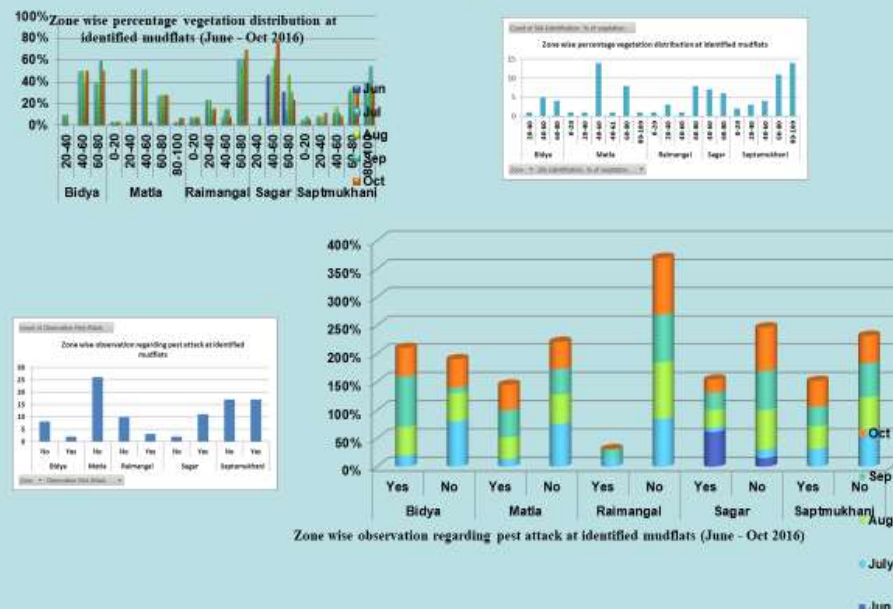
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Longitude: 88.161396  
Elevation: 14.03 m  
Accuracy: 14.0 m  
Time: 22-08-2021 07:13  
Note:  
Lakshmipur.





Delineating areas with GPS

Several analytical results are obtained for effective conservation management through these efforts



Mangrove Watch Report



Taking photographers, tourists to the bird colonies that have developed there



## Negotiating with the Irrigation Department, on the nature of dykes







Empowered  
women,  
in full charge



## Preparing soil





## Making jute poly bags





Making awareness campaigns in the village





Also started making nurseries with native species for agri-horticulture purpose





## Doing sustainable fisheries in leased out ponds



Latitude: 22.195907  
Longitude: 88.916862  
Elevation: -1.78±8 m  
Accuracy: 10.8 m  
Time: 04-08-2022 14:32  
Note: Kumirmari



## Preparing the background work – Azolla cultivation







Using tensiometer in  
agri-fields to optimize  
water use

Using pH measurements for  
water quality in fisheries



### Lessons learnt :

- Women participation in forest management accelerate the competence of forest institutions.
- The knowledge , skills and practices of both of them contribute to the conservation, management and improvement of natural resources.
- Women's contribution lead to better following of rules and a greater transparency in the working of the organization.
- It even leads to an improved conflict resolution and improved observance.

So it's important to regard the both genders' participation



What needs to be understood -

The numerous roles played by women have created situation whereby they influence and are influenced by the environment. With the degradation of environment and depletion of forests, this relationship becomes increasingly negative: the scarcity of resources increases, demanding more time and energy to secure them. These relations between women and the environment required to be acknowledged, understood and integrated into project development.

What is expected-

Enhancing the understanding of gender roles along forestry value chains,  
Supporting value chain activities performed by women, and  
Working with existing processing and marketing groups in which women participate



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Green brigades –

a story, whereby women are being empowered to become leaders in their communities for sustainable forest management. Women are able to provide economic support to the family and seek their autonomy and leadership within their communities.



A protected mangrove ecosystem



*Thank you*