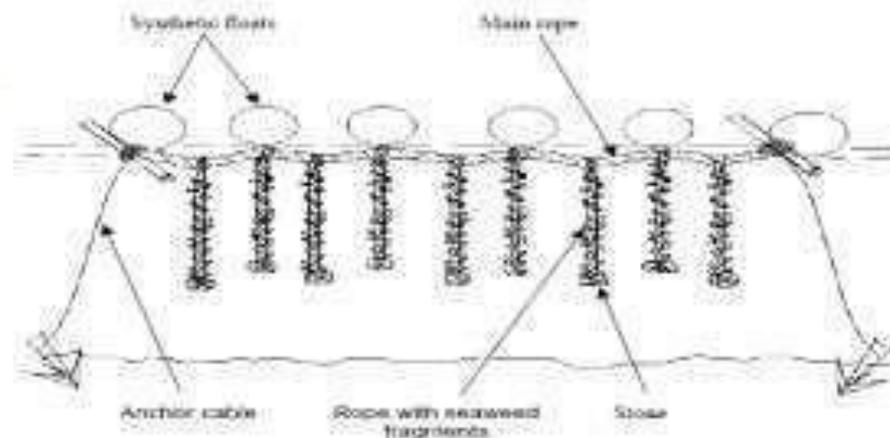


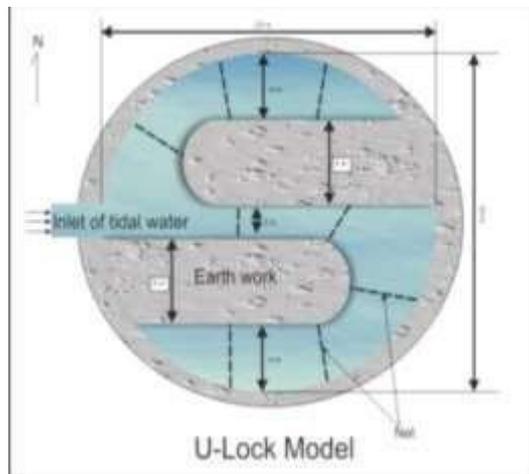
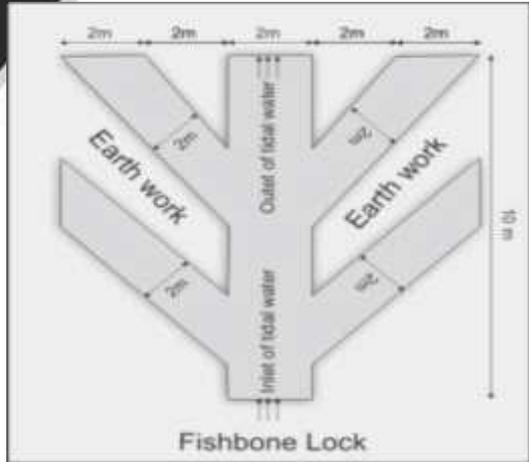
# Algae-Culture in Salt water Inundated Coastal Farmlands



## Interventions: Farming Techniques



# Developing the SEPL in Coastal Habitat





- Presently around 500 households (2500 farmers) are practicing integrated aqua-farming in Sundarbans with an increased earning of 17-23%.
- The project is scaling up in other coastal states of India and Bangladesh, as well.
- It has the market potential for a million-dollar industry based on clean technology initiative in South Asia.



- Nearly 27 Hectare of coastal habitat has been restored with nearly 4500 mangrove plantation.
- Local fish biodiversity has improved and now being integrated with alga-culture



# Aichi Target 14: Restoration of ESs for the poor and vulnerable indigenous communities in the locale.

Indicator 1: Number of ecosystem services and coastal habitat restored in Sundarban delta.

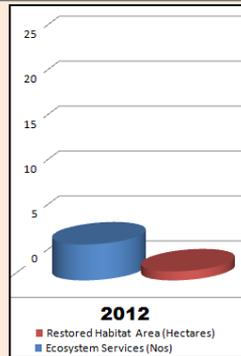
Indicator 2: Increase in per capita income through local alga culture in the intervention area.



## BEFORE (2012)

At inception only 04 Ecosystem Services could be identified in the coastal habitat

Available habitat for agro-farming was even less than a hectare (Ha)



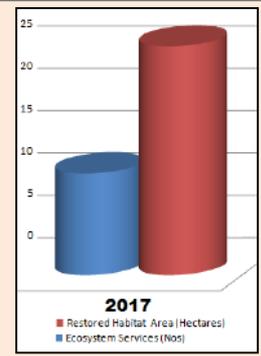
Per capita income of marginal farmers went below \$10 per month due to salt water ingress and habitat inundation



## AFTER (2017)

Presently 12 Ecosystem Services in the locale could be ensured.

Presently alga farming is done in 27 Hectare of restored habitat.



Presently it is compensated by almost 250% by enabling Alga culture in inundated farm lands. Presently its \$35 per beneficiary per month.



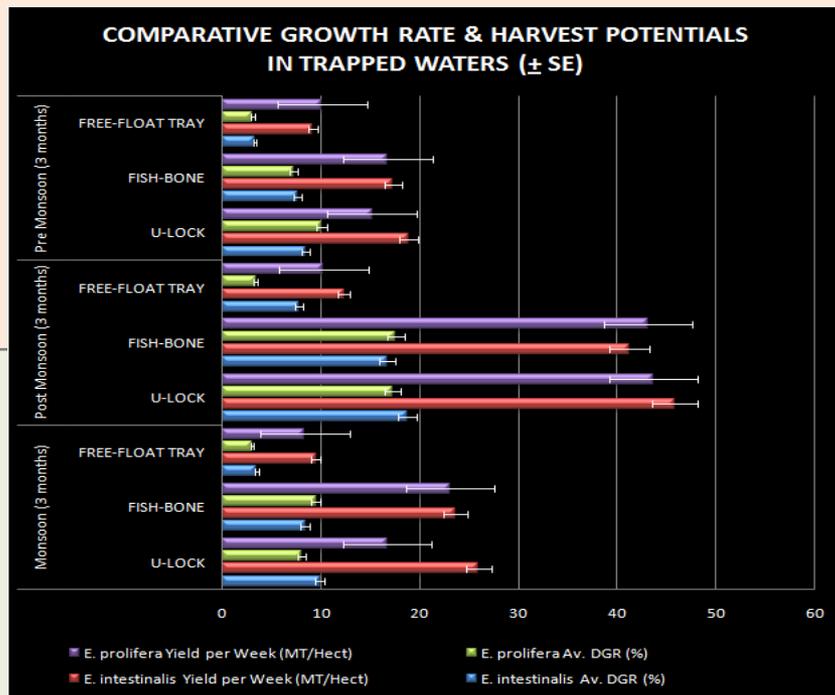
# Aichi Target 15: Biodiversity to enhance carbon stock as an adaptive mitigation for climate change



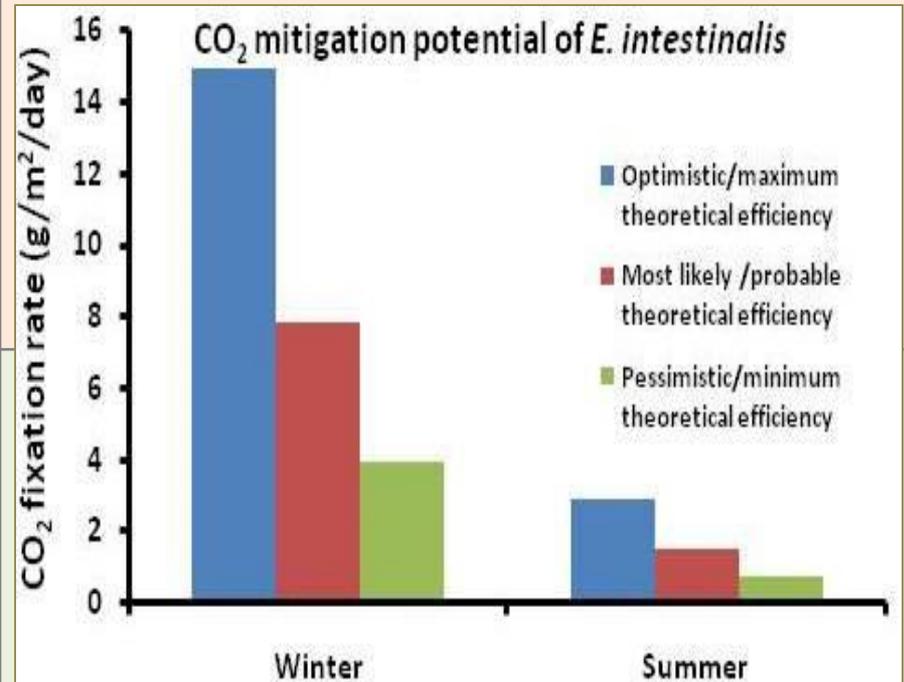
Indicator 1: Increase in primary productivity as evidenced from DPR%

Indicator 2: Increase in carbon mitigation potentials, as evidenced from carbon stock enhancement in cultivated algal flora.

## Increase in DPR%



## CO2 Mitigation Potential



# Aichi Target 14: Access to genetic resources & equitable sharing of benefits and its utilization is operational



Indicator 1: No of farmers converging to various species of alga cultivation in inundated farmlands

Indicator 2: Mainstreaming alga cultivars as farmer's federation for availing credit linkages

## BEFORE (2012)

No farmer had ever practiced cultivation of local algal flora for

No local institutions for alga cultivars existed in the area of intervention



## AFTER (2017)

500 households from marginal community (3000 farmers) are regularly practicing alga farming in their inundated farm lands



## Message to the CBD for post-2020

1. Enterprise-oriented community-ecosystem based conservation approach can be viable and contribute more to local economies, diversify income streams and generate multiple social benefits.
2. Local institutions can take on non-traditional products and services including ecotourism, carbon sequestration, water, and agro-forestry as well as traditional bio-energy resources, as in case of bio-fuels from algae, but they must be duly formalized.
3. Conservation policy framework should be place-based and needs to be developed through participatory approach so as to incorporate TEK and resource budgeting principles for sustainable production and consumption.

## Suggestions to IPSI for post-2020

1. Local institutions and CBOs may be brought under the IPSI network and sustainable interventions therein needs to be documented for reference.
2. SEPLs in climate vulnerable areas of the global south may be mapped and vetted for collaborative research towards sustainable intensification of primary productivity for Carbon Capture & Storage
3. IPSI networking can facilitate knowledge economy on leveraging Satoyama experiences and its applicability in local conservation efforts at grassroots.