

Theme- Wetlands and Disaster Risk Reduction/ Climate Change

Sharing on

**The Lessons learned in building community resilience:
100 villages on the bank of 3rd largest river system
of Peninsula of India in 5 years.**

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Background :

River Mahanadi is the largest river system of State of Odisha and the 3rd largest river system of peninsula of India. It drains an area of around 141,600 square kilometers and has a total course of 858 kilometers through 3 states of India. The communities living along the bank of the river are highly dependent on the river system. Each year the river brings flood which affects the lives and livelihoods of these communities.

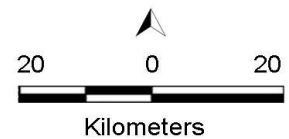
Besides these areas are also affected by multiple other hazards like tropical cyclones, drought, water logging, sea level rise, land erosion, increased salinity etc.















Map of the Mahandi River System



**WETLANDS
INTERNATIONAL**



References

-  Rivers
-  Blocks
-  Districts
-  Mahanadi Delta
-  Surveyed Wetland
-  Agriculture (Single Crop)
-  Agriculture (Double Crop)
-  Dense Forest/Plantation
-  Open Forests
-  Mangroves
-  Riverine Marshes/Swamps
-  Wetlands

Landuse of Mahanadi Delta 24 Jan 2010 (IRS P6, LISS - 3)

Partner's for Resilience (PfR) Building

The partner's are -

- The local communities (100 villages) and community based institutions (VLDRC, Women SHG)
- The Local self Governance
- Govt. Departments/ different schemes

Supported and Technical Advises by - WISA, CORDA AID, Red cross Climate Centre, Netherlands, CARE, Netherlands.

Implementing Org. in Odisha- NETCOAST



The Project Approach, which were the cornerstones of the project



* Resilience building -

(refers to the ability of a system to undergo stress without incurring damage and to recover and then further growth.)

* Adaptive Capacity building on climate change issues (CCA) -

(refers to the ability of a human or natural system to adjust to climate change, including to climate variability and extremes; prevent or moderate potential damages; take advantage of opportunities; or cope with the consequences.)

* Ecosystem Management & Restoration (EMR)-

(refers to the process that aims to conserve major ecological services and restore 'natural resources' while meeting the socio-economic, political and cultural needs of current and future generations. 'Landscape Management Approach' has been followed)

* Community Managed Disaster Risk Reduction (CMDRR) -

(refers to building capacity of the society to contribute effectively to become safe societies through disaster "prevention", "mitigation" and "preparedness" measures)



The project strategy:

Landscape management principles was followed for designing the project. There was selection of 100 vulnerable villages across the Mahanandi river system in different districts of Odisha.

Following Eco-system Management as the core approach, these targeted villages were segregated in to 3 zones based on the landscape pattern and geographical locations, viz.

- i) Delta head zone,
- ii) Central zone and
- iii) Coastal zones.

The project strategy:

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Participatory Risk Analysis (PRA) was conducted in each of those villages. The analysis included among many other variables,

- the village's evident problems,
- the extent of vulnerabilities,
- the available human & financial resources and
- the community capacities.

This has finally led to development of 'micro-plans for building resilience' for each of the villages. It envisaged mobilization of resources from Govt. and other local stakeholders of the areas.

- * Apart from measures to respond village specific issues, these plans also included some of the activities due to its location in the respective zones, which ultimately influence the ecosystems of the other zones. viz. activities on the upstream areas and its influence at the downstream areas.



The project Framework (Methodology)



Identifying villages as per RISK frame work,
Rapport Building



Risk and vulnerability mapping (PRA)



Transect Walk



Participatory Mappings



Data Analysis



Plan Preparation(VLP & CP)



Risk Reduction measures



Implementation (Model
intervention & Convergence)



Monitoring and
revisiting



Community Mobilisation



The Lessons learned

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1) Local Self Governance involvement- resilience agenda carried forward...

Acceptance of the micro village level action plans which came up as the PALLISABHA action plan for the village. Later get passed at the GRAMASABHA as the Gram Panchayat level plans.

Thus resources could be reallocated to build resilience of those villages.

The agenda is
still moving
forward.
(in all the 3
zones)



2) Water logging issue mitigation-

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These helped in draining of excess waters (during flood or rainy seasons) to the rivers and buffer zones of the wetlands. The water bodies could be rejuvenated. Acres of lands could be available for cropping for another season. (specifically in the central zone villages)



3) Clearing of River Mouth-

stagnant water get released to the sea and crop fields saved from saline water surges.- This worked for the Coastal zone villages.

The youth volunteers from the adjacent villages get together and used to go to clear the water hyacinths and other obstacles on the sea mouths, which hinders the passage and flow of river water to the sea. The project successfully organize the communities of all the adjacent areas to come forward to resolve the issue themselves.



4) Introduction of stress tolerance variety of crop-

The crop fields in different zones were facing issues like water logging in the Central zone, salinity in the Coastal zone and water scarcity in the delta head zones. The project helped bringing soil Scientists from the local Krushi Vigyan Kendra. After soil and water testing , they recommended seeds and crops as per the case. We facilitated the process and results were successful. Viz. Swarna Sub-1 for central zone villages, Sukha Samarat for Delta head villages etc.



5) Micro enterprise promotion for the women of the community as the alternative livelihood measures- pond pisciculture promotion -

The water bodies and the ponds were remained unused for several reasons. The project facilitated bringing the Fishery Scientists from the local Krushi Vigyan Kendra. After soil and water testing, they recommended measures to renovate the ponds and advices on the fishing practice. We facilitated the process and results were successful particularly in the Central zone villages.

ICZMP project has extended further supports to make the processes sustainable and gainful for the women of the communities.



6) Community disaster preparedness enhanced- Task Force developed and worked effectively -

In the process of building the capacity of the community towards disaster, the project facilitated formation and training of Task Forces at different villages.

These youth Task Force volunteers have started working effectively. Their responses to the last Phailin Cyclone in 2013 and Hud-Hud Cyclone in 2014 has illustrated the relevance and the enhanced efficiency of these groups.

A comparative study on this was carried out by WISA on 'Phailin Cyclone Response' in these areas; which has been well appreciated at different forums.

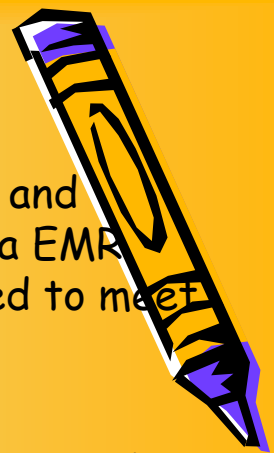


7) Plantation to stop soil, embankment erosion, saline wind prevention-

The project facilitated community participation in the process of restoration and growth of forests in and around the villages. Of course the plantation as a EMR measures used for different purposes at different zones. But it has helped to meet the objectives and communities are getting benefits from this. Viz.-

- in the Delta head zones, the plantations were used to stop soil erosion,
- in the Central Zone villages, it was used as a measure to stop embankment erosion
- in the Coastal zones , it was used as a measure to stop saline wind flow from the sea coast.

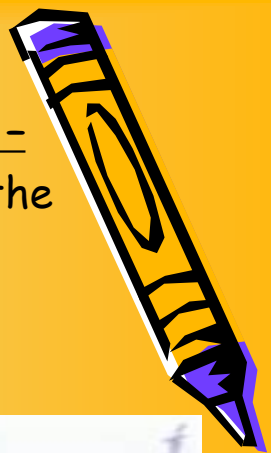
The evidences are in the fields and the Panchayats are promoting these further.



8) Community managed Mangrove Forests as the natural shield to cyclone -

This was facilitated in the Coastal Zone villages. The communities are taking the stewardship of these forests.

There was further supports extended from ICZMP project to scale up the activities further in those areas.



9) Insurance promotion as the risk transfer mechanism -

Insurance promotion has been carried out in all the zones. Both Life and Asset insurance was promoted.

Of course there are still challenges to cover all the assets under schemes. But the successful part of the story envisaged that the communities are now self motivated to update their insurances regularly with fisher department. Women are taking more interest in this sphere.



10) Sensitisation programmes for the local schools -

"aware children - sensitised future"

The local school children of the in and around the target villages were made sensitized on environment issues and disaster management aspects. Action programmes were also organised to build their active participation in this regard.



Conclusion:

The project during the last 5 years has left behind a group of stakeholders with both the motivation and ability to work together to promote practical approaches towards better community resilience building. Both the success and the failure stories has left behind foot prints.

While the Mahandi river system is the life line of many small and larger wetland systems of the State, the documentation and sharing of such cases stories will provide enormous inspirations in further mobilizing other communities, Govt. departments and other stakeholder's joint initiatives to resolve issues locally and having impacts on a broader scale.



Thanks
to all !!!

