

Urgent Action needed for protecting villages from rising sea levels because of Global Warming (Sea Barrier Conservation Project)

A. Introduction

An extensive portion of the land alongside the sea at Dandi and further south along the coastline in the Kantha Vibhag area has a problem of sea erosion and sea water overflowing into agricultural lands and over time this area has become unusable because of the saltiness of the land (known as Khanjar). This will continue to be a bigger problem because of rising oceans. Seasonal Monsoon flooding is another problem that has to be addressed, flooding in the villages during the rainy season disrupts life and it takes months to recover, proper draining and preparedness for the annual rains will alleviate the issue.

There is now an increasing need to protect the coastline and inner areas of our gamas from sea water and erosion, especially because of rising waters due to global warming. Sea Water that has been flowing into the Khanjar areas over the years has been turning good arable farm land into unusable land caused by salty sea water and sea erosion. This can readily be reversed by erecting natural sea barriers where sea water overflows into the land in the form of sand and rock barriers and mangrove vegetation. Fish farmers who currently use sea water can continue doing so by piping sea water to the required pond areas.

Any solutions implemented should take into consideration monsoon rains together with the problems of drainage and runoff of much needed fresh water into the sea, it may be desirable to store this water perhaps in a lake. A feasibility study of all possible solutions should be presented before any project is started, this will all be done with the help and collaboration of the regional government departments.

As part of the Tree Planting Project, thousands of trees should be planted on the Dandi coastline as protection against natural calamities like cyclone, hurricane, Tsunami, etc.

B. Key Issues

- Severe sea erosion problems in some areas on the beachfront and further inland
- Sea levels rising every year due to climate change
- the solution of P.P. Gabions is not suitable
- Protection by using tetrapod may be part of the solution, though high cost may be an issue

– If protection work is carried out by larger size stones, Gabions, Tetrapods, Beach will lose its

natural beauty

– a study needs to be conducted before a solution is implemented

– requires a permanent long term solution

– time is of the essence, if the government is unable to help with a timely solution then a community funded solution will be the only alternative.

C. Potential Solutions and Opportunities

The one solution is to put up barriers that will prevent sea water from overflowing into land areas, these barriers should be as high as the height of the highest watermark during high tide multiplied by two, this will ensure a permanent long term solution. Routine maintenance has to be planned on a periodic basis, perhaps quarterly to ensure that the barriers are not compromised due to soil erosion and wave action.

Land Reclamation – preventing sea water from overflowing into the area and reversing the saltiness of the Khanjar area will suddenly make hundreds of acres of land available for farming and other non-agricultural uses.

D. Challenges

1. Currently, sea water is used by the fishing industry in ponds, continuation of this supply is necessary by providing piping from the coastal area to the inland ponds on a limited basis.

2. Funding for the project

3. If nothing is done then there is a threat the entire Kantha Vibhag area may be overrun with sea water and it will result in loss of farmland and habitat.

E. Project Implementation

– All work that has to be done should be conducted with the help and permission of the relevant government authorities.

– A detailed project plan and timeline should be established

– Proper project management and controls to be in place