How COAST do climate adaptation in Salinity:

Case study from Kutubida

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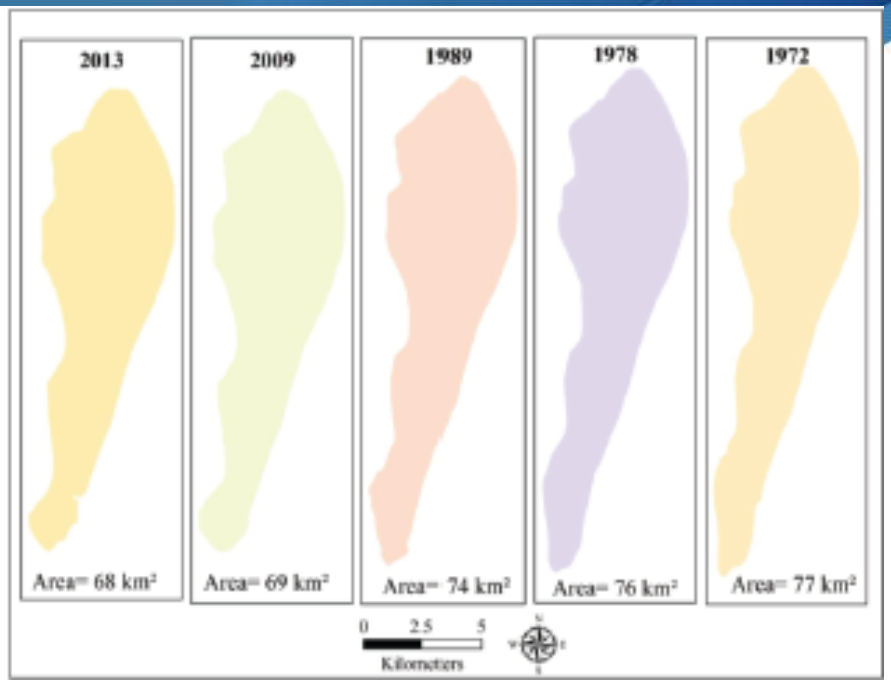
Kutubdia

- ✓ An island surrounded by saline sea water of Bay of Bengal
- ✓ Nearest distance from Mainland 3.5 KM (from Mognama point of Pekua Upazila)

Kutubdia



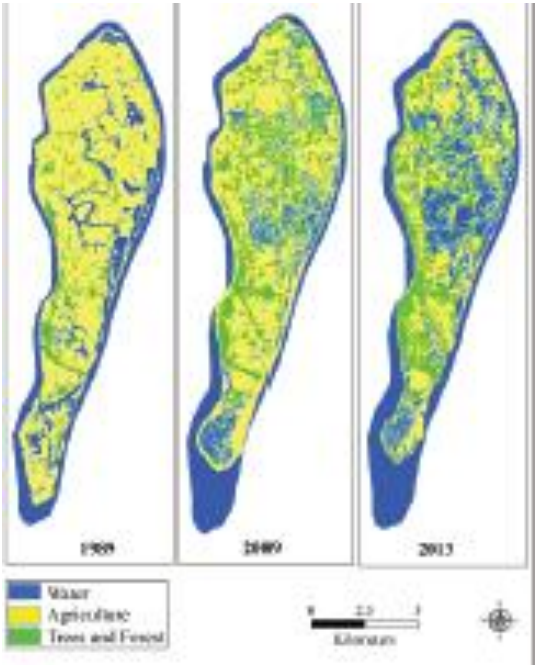
- ✓ It was around 250 sq km, in last 100 years it has lost 70 %, now it is around 65 sq km.
- ✓ Present population 1, 25, 297
- ✓ Per sq. km around 2000, National average is 1150.

In each and every upazila of Coxsbazar district you will find Kutubdia Para.

How the island engulfed with saline water and losing agricultural cultivable land

During 1972 agriculture land was 59.51 sq km. in 2013 it was 36.29, the loss is almost half

Reasons: sea water raise, loss of embankment which was constructed basically after 1960, 1991cyclone). Increased frequency of small cyclone (e.g., cyclone no. 3), high tidal surge during monsoon.

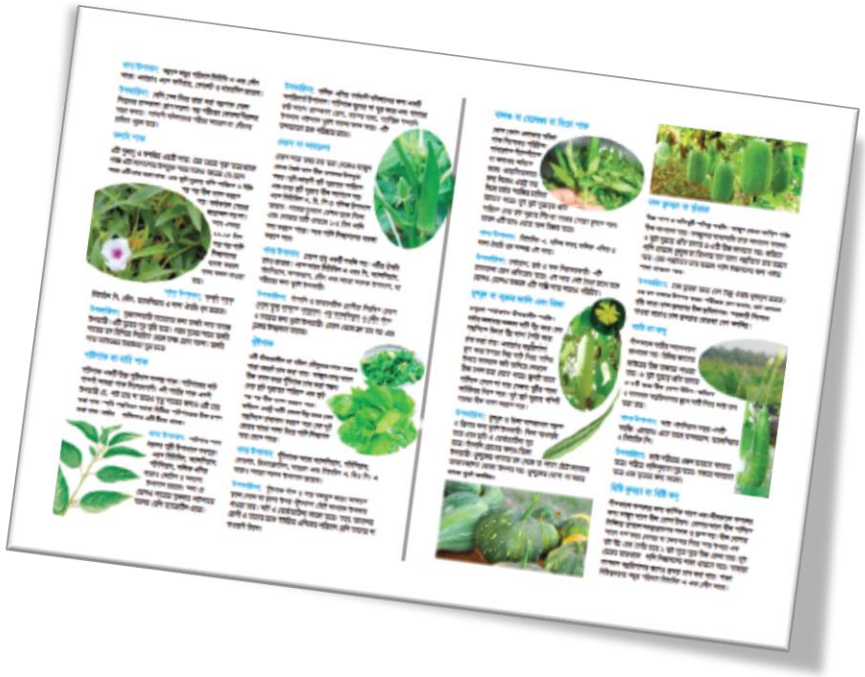


COAST Climate Adaptation Campaign

COAST has developed climate adaptation campaign during 2014 with its own fund and experiences in two upazila Borhunuddin, Bhola and Kutubdia, Coxsbazar.

COAST Climate Adaptation Campaign

COAST Developed simple message based on people and development worker experiences (gathered through FGD) from the locality



Key messages

- ✓ Raise the homestead, pond side and kitchen garden place
- ✓ Raise the base of toilet
- ✓ Adaptive local vegetable tailored to the priority need of pregnant women, and child
- ✓ Fish culture in brackish water
- ✓ Adaptive rice cultivation

Campaign Effect

- ✓ 245 homesteads raise in Uttar Dhrung the Enrich Area
- ✓ More than 80 toilet base raised in the same area
- ✓ Enhance cultivation of designated vegetable…
- ✓ Motivation on cultivation on Bina 8, Bri 55, Bri 47,
- ✓ Propagation of Para Grass.
- ✓ Fish cultivation

Uttar Dhurong and ENRICH

Uttar Dhurung, Kutubdia Upazila as ENRICH Project Area: Why it has selected (i) remote, (ii) high level of saline water intrusion, (iii) high level of salinity PPT, and (iv) to get highest level of adaptation experiences.

Aftermath of 21st May cyclone Roanu

- ✓ COAST concentrated on Water and Sanitation as People's Demand and as no one doing the work.
- ✓ Immediate first two week of cyclone recovery – drinking water supply through two German Portable Machine, one purchased out of micro finance income and another one funded by Stromme Foundation Norway.

What we did in just after the Cyclone Roanu (May 23, 2016)

Installed 13 deep tube wells

- ✓ But source of drinking water in aquifer in more deep (e.g. In 2015 it was in 900 fit during 2016 it is in 1100 - 1200 feet)
- ✓ During cyclone these tube wells went out of order for around two weeks.

Cleaning saline water from from existing ponds, re-excavation and raise the pond side

- ✓ Clean saline water on urgent basis from 69 ponds, with community participation and contribution
- ✓ Raising the 66 pond sides in creating temporary employment opportunity

Gender dimension in water crisis

- ✓ Women could not go to the tube well as it is open, installed 32 cubes surrounding the tube wells

Sanitation and Toilets

- ✓ Raise the foundation of 35 toilets, and making at easy accessible to women

Health situation and primary health care

Empirical observation of health situation in this saline prone area in priority order

- ✓ Children: Diarrhea, fever, cold
- ✓ Women diseases: Back pain, Knee pain (since they sleep on the earthen floor)
- ✓ All: Skin Diseases

Health situation and primary health care

- ✓ Full time female health paramedics 11 and 2 health supervisors,
- ✓ Health Paramedics services in 8000 Families
- ✓ 6 Health camp facilities
- ✓ Promoting Sanitary Napkin pads through small shop owners in the locality
- ✓ Diabetic test: about 700 people

Apart from this in ENRICH there are education activities.

saline water and pond water to drinking water: Experiences of Sathkhira

Activities	Cost	Positive	Negative
Pump: Converting saline water to drinking water	BDT 33 lakh for installation, 200 taka per hour	Water is being converted	High initial cost
Ponds and Filter: Making pond water drinkable	Initial cost about 2 lakh	Sweet water can be made drinkable	Pond needs to be deep

saline water and pond water to drinking water: Experiences of Sathkhira

Activities	Cost	Positive	Negative
Community level rain water harvesting	BDT 2 lakh for installation	No maintenance cost	Fully depends on rain
Household rain water harvesting	Initial cost about 1 lakh	No maintenance cost	PFully depends on rain

Long term solution:

People demand is critical infrastructure like embankment / polder to protect the people from saline water intrusion.

COAST did local and national level campaign on the issue, to draw the attention of government national policy leaders, and in the local level multistakeholder consultation for public participatory monitoring on quality construction (one parliamentary caucus, three human chains in national and district level, one national level seminar on reform on the work process of WDB, two multi stakeholder consultation for public participatory monitoring and quality implementation).

Suggestion for NGOs and PKSF

- ✓ Revaccination and excavation of POND cum "KELLHA" to enhanced surface water preservation in coastal area
- ✓ Loan with low interest rate to create a GUIDED DISATER and CLIMATE ADAPTATION FUND in each of the coastal NGOs to enhance the capacity as FIRST RESPONDER.
- ✓ INTEGRATION of primary health care (PHC) , disaster risk reduction (DRR) activities with micro finance income
- ✓ POSITIVE ENGAGEMENT with local government agencies for effective implementation and ADVOCACY on pro people issues.
- ✓ CONTINIOUS and CONSISTENT ACTION RESEARCH re on climate adaptation activities.

Challenges

- ✓ Imbalance Development Approach : Growth Vs. Protection
- ✓ Political will for critical infrastructure to protect coastal people
- ✓ People participation and Corruption Free WDB and Forest Department
- ✓ NGOs are hardly interested on Humanitarian Advocacy and Protection Agenda

Now Your Turn!