Adapting to Climate Change in Sri Lanka

By Vajira Hettige

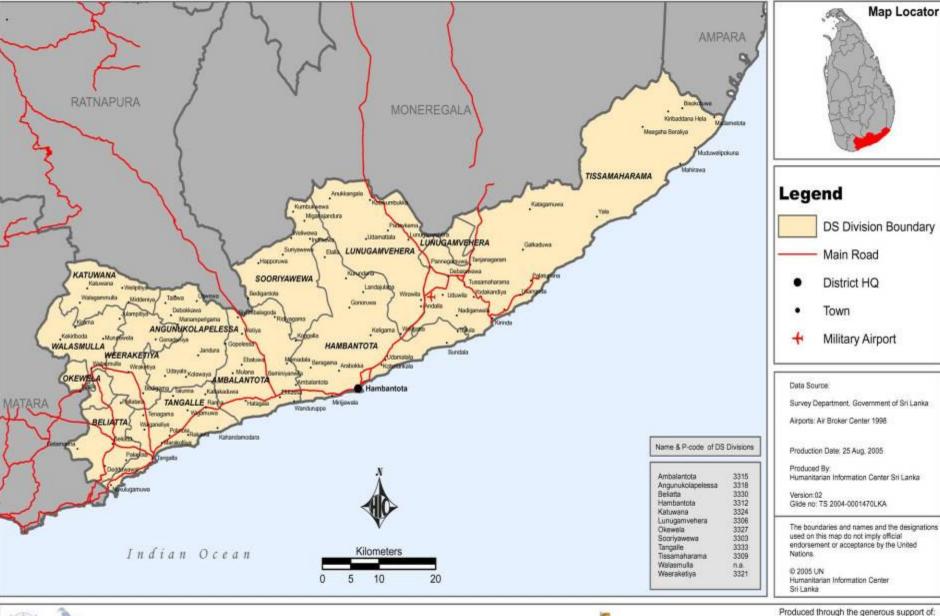


Site selection

- Original locations of Uva province had changed to the southern province with post Tsunami rebuilding work.
- 4 Coastal DS divisions of <u>Hambantota district</u> was selected
- Key vulnerabilities related to climate change
 - 30 -40 % yield loss of rice due to salinity in the District and this will worsen
 - coastal erosion and hazards will increase
 - fishing families face greater livelihood insecurity

MAMBANTOTA DISTRICT

Administrative Map















Knowledge on climate change

Local Knowledge: communities are aware of:

- Rain fall variation
- Temperature variation
- Changes to the Cropping calendar

Scientific knowledge: there are findings of

- Sea level will rise
- Temperature will increase
- Rainfall pattern variation

Key problem: salinity

Possible alternatives identified	
Try out the traditional varieties	
Low input / Organic cultivation	
Treated paddy husk and bio manure	
Use of bio pesticides – Neem	

Salinity affected paddy lands





Discussions with farmers





Participatory Action Research by farmers on saline resistant varietal selection - Establishment of demonstration site









10 varieties tested



4 varieties selected according to the yield, grain color...etc

Low input agriculture practices

Organic manure (treated paddy husk ,compost , green manure , Neem (bio pesticide)







Premium price for traditional rice Rs.60- 80/Kg (Normal rice – Rs. 40 - 45 / Kg)







Capacity Building and Sharing

Capacity building programmes for
 200 Farmers

 (including 80 land abandoned farmers)

Stage	Season	Farmers involved	Sites involved
Stage 1	2005 /6 Maha season	10 farmers (0.05 Ac)	1 pilot site
Stage 11	2006 Yala season	72 farmers	9 sites
Stage 111	2006 / 7 Maha season	200 farmers (0.5 Ac)	12 sites

- 10 Farmer organizations
- Agricultural instructors in the coastal divisions of District





Key problem 2: coastal zone hazards

 Sea level rise leading to coastal erosion, Inundation and salt water intrusion







- Increasing incidence of cyclones
- Threat to coral reefs and coastal wetlands

Solution; coastal green belt

- In 5 locations
- -18, 700 plants
- 800 families involved











- Awareness creation
 - Nearly 1200 Households & 1500 school children in Hambantota District

- Coordination and information sharing peogrammes
 - with Coastal Conservation Department
 - For District and National level NGO's ,GO's and Donors





Key problem 3: Livelihood insecurity among youths in fishing families

- Fishing does not provide year round income
- This situation will worsen with climate change impacts
- Alternative livelihoods are needed, especially for young women and men

Diving and Ecotourism as alternative livelihoods As models to share and advocate with other organizations

- Professional diving Training with license helped ,
- Jobs in harbors, fishing archeological and research work,
 Tsunami Debris cleaning work in the beaches, Coral rehabilitation work

- Ecotourism is becoming popular
- Two young groups were trained for ecotourism business development



Awareness creation and advocacy on Climate Change

Awareness creation on climate change at district level for the key departments with involvement of Center for Climate Change Studies





Evaluation findings & lessons

Rice

- Traditional paddy cultivation has helped marginalized salinity affected farmers to cope
- Attitude of the Agriculture institutions changed positively
- But better marketing to get a higher price for niche product is necessary
- Lessons:
 - Communities are proactive in working for adaptation
 - Participatory Rice Variety Selection is beneficial since conventional research system has its limitation in addressing marginalized farmers concerns
 - Local knowledge is a good base to understand local climatic variations & plan interventions accordingly

Evaluation findings & lessonscont.d

Green belt

- Awareness, training and planting programmes have helped community on environmental conservation and management practices
- However, community and partner organization involvement for maintenance of plantation is not at the satisfactory level in post Tsunami context
- Lesson:
 - Lack of knowledge and coordination on coastal vegetation development among the communities and organizations limits proper establishment of green belts.
 - 25% plant survival is not abnormal in difficult conditions it is important to manage expectations and adopt low-effort planting techniques

Diving and ecotourism

- Both the options have increasing potential in the costal areas as alternative livelihood options
- Further training on business plan development and marketing is essential and linking with financial institutions
- Lesson:
 - Need to consider employment opportunities and risks involved before providing training and equipment

Constraints on developing adaptation programmes in Sri Lanka

- Lack of national policies for promoting adaptation
- Low priority for climate change work among development organizations
- Low level of of clarity / research in climate change impacts in the country