

Adapting to Climate Change in Sri Lanka

**By
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Site selection

- Original locations of Uva province had changed to the southern province with post Tsunami rebuilding work.
- 4 Coastal DS divisions of [Hambantota district](#) 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

HAMBANTOTA DISTRICT

Administrative Map



Legend

- DS Division Boundary
- Main Road
- District HQ
- Town
- Military Airport

Data Source:
 Survey Department, Government of Sri Lanka
 Airports: Air Broker Center 1998

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Name & P-code of DS Divisions	
Ambalantota	3315
Angunukolapelessa	3318
Beliattha	3330
Hambantota	3312
Katuwana	3324
Lunugamvehera	3306
Okevela	3327
Sooriyawewa	3303
Tangalle	3333
Tissamaharama	3309
Walasmulla	n.a.
Weeraketiya	3321

The boundaries and names and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

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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

Identified problems	Possible alternatives identified
<p data-bbox="205 602 926 646">Low yield of available new varieties</p> <p data-bbox="205 727 947 820">Abounded areas are increasing Need / use of higher chemical inputs</p> <p data-bbox="205 901 1003 993">Soil organic material levels are low and water retention is poor</p> <p data-bbox="205 1075 1003 1118">Pest and diseases levels are increasing</p>	<p data-bbox="1066 602 1690 646">Try out the traditional varieties</p> <p data-bbox="1066 727 1690 771">Low input / Organic cultivation</p> <p data-bbox="1066 901 1795 945">Treated paddy husk and bio manure</p> <p data-bbox="1066 1091 1654 1135">Use of bio pesticides – Neem</p>

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 programmes
 - 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