



ECO ETHICS

KENYA

Integrated indigenous and modern fish processing and marketing

Location: Ozi and Kipini, Tana Delta District

Timeline: September 2008 to August 2010

Funding: Regional Programme for the Sustainable Management of the Coastal Zones of the Indian Ocean Countries (ReCoMaP)

Objectives: Reduce post-harvest losses of caught fish; introduce new technology; encourage sustainable marine and riverine fishing; value addition in processing fish

About the project:

The Tana Delta is formed from the lower floodplain of the River Tana, Kenya's longest river, as it flows from the towns of Garsen to Kipini on the edge of the Indian Ocean. With its patches of wetland and ancient forest, the delta is a remote area that feels somehow cut off from the rest of Kenya. Many of the people who live there are marginalised, and occasionally have to depend on relief aid. On the coast and along the river inland, the communities rely largely on rice farming and fishing. Fishermen in Kipini and the village of Ozi confirm to us that about a decade ago, fish stocks in the River Tana and the Indian Ocean were so plentiful that they would throw the excess catch on to the banks. These days the fisheries have been over-exploited and it is becoming harder and harder to land a full catch.

The 'Integrated Indigenous and Modern Fish Processing and Marketing' project aims to help fishermen maximise their earnings by increasing the value of the fish harvested, reducing post-harvest fish losses, and using energy-efficient methods of fish preservation. Other than the economic benefits, this should help reduce pressure on the marine and riverine resources. Traditionally, fishermen have used salting, smoking and sun-drying methods to preserve fish. All these were done under unhygienic conditions, which reduced the value of the fish caught. Building on this indigenous knowledge, we introduced new energy-saving smoking kilns and solar-powered tunnel dryers, which Eco-Ethics had trialled at Ganzi in 2005/2006. We also worked on more hygienic techniques and possible means of adding value.

Benefits of the new technology:

More energy efficient (using solar power or a reduced amount of fuelwood)

More hygienic, with custom metal racks for the fish

Better quality of smoked and dried fish, with less spoilage

The beneficiaries of the project were members of the Ozi and Kipini fishing communities under the umbrella of their Beach Management Units (BMUs) - cooperatives concerned with resource

management and the welfare of fishermen. Our field officer worked with the two communities as well as partner organizations to construct kilns and dryers in Ozi and Kipini, and provide training in the new technology. An initial market survey was carried out to identify potential markets for the smoked and dried fish. BMU members were then elected to committees for managing the project.

In rural villages, fishermen are vulnerable to exploitation by fish dealers, who sell fish on their behalf and frequently withhold part of the profits. In the Ozi and Kipini project, fishermen brought their fish to a landing site where they would sell it to project representatives within the BMUs to be smoked or dried in the new kilns and dryers. From this centralised location, the processed fish was sold to dealers, ensuring more revenue for the fishermen and greater financial transparency.

Many villages in Tana Delta view NGOs in terms of relief aid, and so Eco-Ethics worked hard to ensure the communities' participation and contribution to the project. Ozi is particularly remote, which makes it difficult to bring fish to the landing site and also transport it to potential markets. Another challenge was finding the right organizational structure within the community for running the business.

Nevertheless, there are already clear benefits. We established strong demand for the processed fish in markets as far away as Hola and Malindi, and the profit so far has been reinvested in the business. Women were involved in each step of the project, and gender relations have improved. Progress continues, but this is an early example of community ownership and decision-making, and technology transfer.

Manual available

Eco-Ethics has published a manual on smoking kilns and solar tunnel dryers. It includes information on construction, preparation of the fish and storage, as well as a background to the technologies. The manual is available as a PDF in English or Kiswahili versions for Ksh 500 (USD 6.20). If you would like a copy, please contact Eco-Ethics at ecoethics@ecoethics-kenya.org or telephone +245 712 972163. Hard copies are also available at Ksh 500 plus postage and packing to your address.