

Already 58 community projects started

To date (September 2006) Green Coast supports 58 small grant projects in Aceh. Replanting of mangroves and other coastal trees (incl. fruit trees) rehabilitates 600 hectares of coastal stretch.

In Indonesia the Green Coast partners use the so-called bio-rights approach. Part of the grant to a local community is being used as finance capital for small-scale economic activities to generate income. Revenues from these economic activities are returned to support community's efforts in caring for the plants.

Approach

The bio-rights approach provides local communities with technical and financial support (mostly in the form of micro-credit) to restore their livelihoods. In return (and instead of paying rent), the communities provide environmental services such as replanting and maintaining coastal forest (mangrove species, casuarina, etc.), fruit trees (coconut, mango, rambutan, banana), raising nurseries. When more than 75% of the planted seedlings are still alive after a set period (6 -10 months) the credit becomes a grant, if the community fails to meet the target, they will receive a penalty by returning the loan to the Green Coast project in which the amount depend on the plant survival rate. The returned loan will be given to other NGO/CBO that successfully rehabilitate their project site as a token of reward.

The technical support is delivered not only to local communities, but also CBOs ranging from training in mangrove planting techniques and seedlings preparation to wetland management.

Women's Role

Gender issues in turns out to be 'women issues', as women have been marginalized in many areas. Based on the history, many of Acehnese women have been known as heroines during the war in the colonial era. Since then on until pre-tsunami period, the women have significant roles in many areas, such as rice farming, fish processing, etc. After tsunami however women roles have been reduced as the resources were gone. For instance is a case from Tibang, an area where a number of SGF projects are implemented. Before tsunami, the women group in this area gained income from collecting oyster in mangroves roots. Women took very good care of mangrove habitats, as damaged mangroves would affect the yield of the oysters. They also replanted mangroves seedlings while collecting oyster. Now that the mangrove trees are gone, they can no longer generate income and have asked for help from donors to assist them in replanting the area.

Coastal Ecosystem Rehabilitation through Fisherfolks' Livelihoods Development

District of Simeulue is a group of islands located in western waters of Aceh. In order to understand the situation of Simeulue Island, Green Coast's Assessment Team carried out its survey in two locations both located in Tepah Selatan Subdistrict (Alus-alus Village and Labuan Bakti Village).

The tsunami (Dec 2004) and the earthquake (March 2005) have not only damaged the coastal ecosystem but have also caused an uplift of the islands. This results in severe dryness and has ultimately killed a great deal more of the mangrove trees in the coastal sites. Therefore there is still a lot of work to be done. Although WIIP made assessment in two of the areas and six proposals were funded by SG, it has been revealed that at least 14 other coastal villages in Simeuleu needs to become rehabilitated as well.

In this area, we believe that the most successful way is by combining ecosystem rehabilitation and livelihoods activities. Green Coast's Small Grants in this area, was used by local NGOs to support their economic/livelihoods activities (mostly coastal fishery activities) such as fishing boats, engines, fishing gears and sewing machines for women. In return, local NGOs with its community's partners rehabilitated damaged areas by planting mangrove species (*Rhizophora*) and beach trees (*Calophyllum* and *Cassuarina*).

This region has so far, probably has been the most succesfull rehabilitation project done by Green Coast project in Aceh and Nias. Relatively secure condition allowed WIIP staff to fully

assist local NGOs and communities in initiating coastal ecosystem rehabilitation as well as to help strengthening their capacity of managing the project for the future.

There are 6 local NGOs implementing Green Coast rehabilitation in this region.

Coastal Beach Rehabilitation through Agriculture Based Livelihoods Development

The district of Nagan Raya and Aceh Barat are among the districts bordering the Indian Ocean and suffered from the tsunami. To characterize the condition of this stretch, Green Coast's Assessment Team carried out its survey in 5 locations.

One area consists of lowland riverines, paddy fields, shallow peatlands, lagoons and coconut trees on the coastal beach.

Sandy areas with sufficient space can be rehabilitated with Cassuarina trees to protect further abrasion while the degraded peatlands (approximately 1 km behind the beach) can be rehabilitated with local species.

In Samatiga of Aceh Barat District, the wetland types consist of freshwater swamp, (before the tsunami it was partly used as paddy fields but after the tsunami it filled up with mud and cannot be used as paddy fields anymore) lowland riverines, brackish water fishponds, paddy fields and coastal beach. The tsunami has caused 400m width of the beach to be inundated by sea water (the coast line has moved 400m towards inland). Almost all beach and mangroves vegetations was killed by tsunami except *Nypa fruticans*.

Rehabilitation using mangrove trees (*Rhizophora*) can only be made on the very limited areas, i.e. on the former fishpond areas as the substrates are suitable for this (muddy-sandy).

Rehabilitation on a big scale using mangroves is not recommended in this area as there is no sufficient space available. Fruit trees can be planted in the community farm land in the village, far behind the beach.

The rehabilitation project in this region is also being done by combining livelihoods developments and ecosystem rehabilitation. However, due to the magnitude of damages that ruined not only physical infrastructures (housing, roads) but also community's social and financial capitals, the projects split its budget to finance both livelihoods development and ecosystem rehabilitations. the budget allocated to ecosystem rehabilitation is considered as grants, while the budget for livelihoods development is considered as a "tentative loan" that should be paid back to WIIP if ecosystem rehabilitation activities fail to meet the agreed target at the end of the project (contract period).

Based on ecological and socio-economic assessments of Green Coast, most of the livelihoods activities financed by the Green Coast project are agriculture related activities like horticulture. Others are goat farming and one floating fish aquaculture. As for ecosystem rehabilitation the activities are dominated by beach trees planting.

There are 11 local NGOs implementing Green Coast rehabilitation in this region.

Coastal Ecosystem Rehabilitation through Coastal Resources Based Livelihoods Development

Banda Aceh and District of Aceh Besar are located at the north tip of Sumatra Island. In Banda Aceh, the assessment reveals that wetland types of this region consist of: brackishwater fish ponds (very dominant before tsunami), salt pans, paddy fields, river mouths/estuarines, sandy shore, intertidal mud sand/flats, Aceh River.

Most of these wetland types were severely degraded by tsunami, silted up by mud and inundated by sea water due to coastal land subsidence. The areas have a very high rehabilitation potential using mangroves species, especially in the ex fishpond. But the pond owners' prefer to rebuild the ponds instead of rehabilitate it with trees. Therefore rehabilitation can be recommended on the non-ex pond areas such as in the river mouths/estuarines, sandy shore, intertidal mud sand/flats and, if agreed by the pond owners, on the pond dikes. From the assessment survey it was found that Tibang coastal area was used by water birds as roosting sites and also as feeding area by a number of migratory water birds.

[note: in order to protect the ponds, located 50-100 m from the coastal line the fish farmers in

Lham Dingin have requested local government to build a sea wall. Unfortunately, this sea wall was built without prior EIA study and as a results, the area become severely flooded during rainy season and during high tides.'>

Assessments carried out in Lamnga and Neuheun Villages reveal that wetland types in this area are mainly brackishwater fish ponds, river and degraded mangrove behind the sand dunes, wich means less diverse. Rehabilitation in this area should be implemented with high precaution, as during the asesment work carried out in this area, it was found that a few thousands of the newly planted mangrove seedlings in this area were removed by excavator, due to the land owners wanting their fish ponds to be rebuilt. Therefore land status and commitment of the owners to rehabilitate their lands must be very clear from the beginning before vegetation rehabilitation takes place.

As implemented in other regions, coastal ecosystem rehabilitation in this region is also carried out by combining it with livelihoods development. Larger portion of Small Grants in the form of "tentative loan" are disbursed to community groups to finance their livelihoods development. If the group successfully rehabilitates the ecosystem, usually defined as 75% planted trees survive at the end of the project, the "tentative loan" will be converted to a grant.

Types of livelihoods developed in this region are more varied compared to other regions but still based on coastal natural resources such as: provision of fishing gear, floating fish cage culture, goat farming, agriculture, and home industry for post harvest fish processing and crisp making.

There are 13 local NGOs/CBOs implementing 15 rehabilitation projects in this stretch.

Mangrove Ecosystem Rehabilitation through Silvofishery

Green Coast's assessment in this region was conducted by WIIP's local partners; Campus Professional and Scientific Group (CPSG) and Marine Science Department of Syiah Kuala University. Region 5 and 6 are consider as one coastal stretch for its similarity in term of habitat dominant along the coast and land utilization which are mangrove habitat and brackishwater pond.

In general, in these areas used to be very thick mangrove forests but these were converted into ponds. The tsunami has severely destructed the ponds and some of the villages. Some are now being restored by BRR (Rehabilitation and Reconstruction Body for Aceh and Nias) but most of them are still being abandoned due to heavy degradation and it will be very expensive to restore them. Some villages also border with the sea and are now facing serious abrasion. This region should receive serious mangrove rehabilitation and be restored into mangrove forest again, otherwise lots of ponds and villages will disappeare. A greenbelt policy should soon be adopted using at least (if possible) the former mangrove width. And the existing ponds' construction must be modified by planting mangrove in the middle and on the dikes of the ponds (silvofishery) as well as behind the coast line.

Based on the result of assessments, coastal ecosystem rehabilitation did prioritize mangrove rehabilitation but also a small portion went to beach trees rehabilitation. As for livelihoods, efforts will be focused on coastal aquaculture, but in a more environmentally friendly way such as silvofishery, a combination of mangrove and aquaculture.

Similar to other regions, the rehabilitation mechanism in this stretch is to combine livelihoods development and coastal ecosystem rehabilitation. Funds given to the community groups are divided into two categories: (1) grants to finance rehabilitation efforts, mostly the costs of planting and; (2) tentative loans to fund livelihoods development. At the end of the project, if the group successfully rehabilitates their coastal ecosystems, in term of 75% trees that planted survive, the tentative loan is converted to a grant and the group is no longer obliged to pay back the loan.

There are 5 local NGOs implementing Green Coast rehabilitation in this region.