





Side Event: Management of Protected Areas and their Surrounding Landscapes and Seascapes

Monday, 17 November 2014

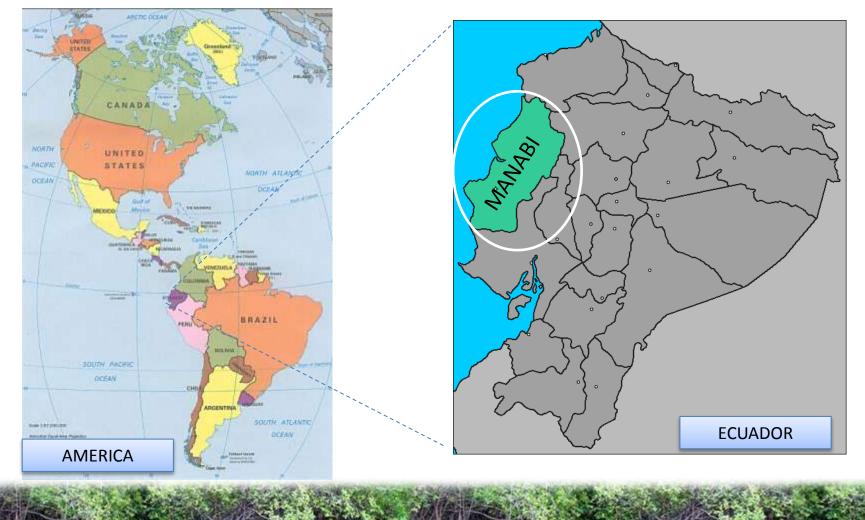
"LOCAL COMMUNITIES' ESTABLISHMENT OF SUSTAINABLE PRODUCTION LANDSCAPES IN MANGROVE ECOSYSTEMS IN MANABI, ECUADOR"

The Foundation for Research and Social Development (FIDES)

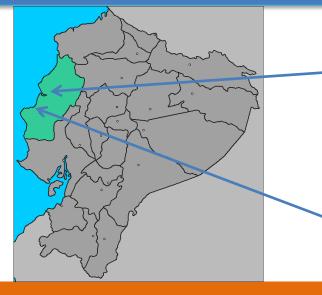




LOCATION







Government Protected Area Chone River Estuary.

Community Protected Area Portoviejo River Estuary.





Mangroves are found within the intertidal fringes of tropical and subtropical coasts, as this is a transitional ecosystem between marine and coastal environments.



They provide a number of ecologically important functions, which are important for the ecosystem's equilibrium, such as:



Flood control



- Protective barrier coasts
- Filtration, capture sediments and toxic substances
- Reduce the salinity of water entering mainland
- Source of organic matter
- Stabilizes microclimates
- Reproductive zone









BENEFICIOS SOCIALES Y ECONÓMICOS

Several communities are situated on the banks of mangroves, and these people engage in activities dependent on mangroves, such as fishing and gathering shellfish.

Also, mangroves have been ancestral sources of food supply, used for charcoal and salt extraction, timber and firewood, tannins, medicinal herbs, and recreational activities including tourism.

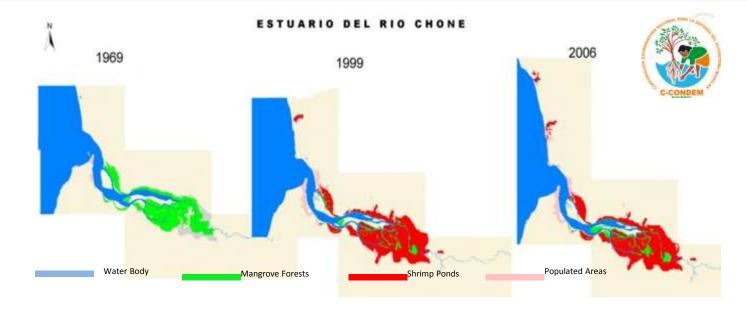
Gatherer woman of artisanal salts

Artisanal fishermen

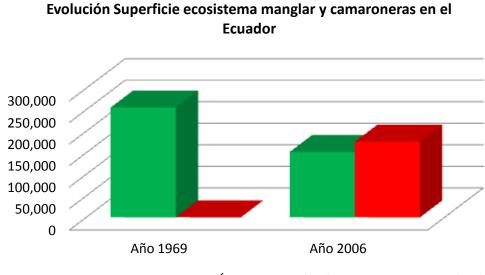








Despite the environmental, social, economic and cultural importance, and the existence of a legal framework for protection, about 60% of the mangroves in Ecuador and in more than 80% in the province of Manabí was destroyed by the shrimp industry.



Ecosistema Manglar -Bosque y Áreas Salinas- (Ha.)



The destruction of mangroves has affected the livelihoods of communities that developed their ancestral fishing activities based on mangrove resources.

- **Decreased fishing catch**: The result of a day's work in fishing and gathering shellfish has decreased by 90%, affecting food security in families.

Before 800 clams - Now 50 clams

This problem is found in all estuarine fishery activities (several types of crabs, fishes, oysters, and more)









The Foundation for Research and Social Development (FIDES) works with families who fish and gather for a living, in the generation of alternative livelihoods for mangrove communities in Manabí through the protection and sustainable use of mangrove resources.

MANGROVE ECOSYSTEM RESTORATION

Red mangrove reforestation (*Rhizophora mangle*); recovery of mangrove species such as black clams (*Anadara similis , Anadara tuberculosa*) and the mouthless crab (*Cardisoma crassum*)









Data registration before repopulation of crabs



Making artificial burrows



Crab entering an artificial burrow



Crabs caught in the monitoring traps



Measuring mouthless crab individuals trapped during monitoring



A boy returning the crab to its respective burrow





- **Community Tourism**: As a major economic alternative, community tourism plays both a social and environmental role, as it provides an income to families and avoids pressure on the reduced resources found within the ecosystem.





Group of women making souvenirs with messages about mangrove conservation.







-Strengthening Community Organizations and Policy











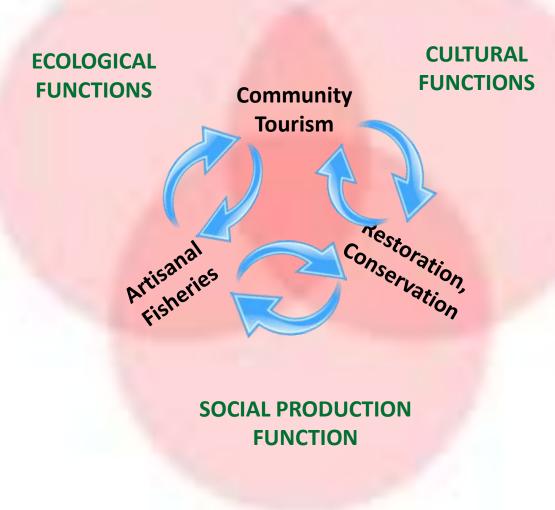
Education with children and youth





SOCIO-PRODUCTION LANDSCAPES OF MANGROVE ECOSYSTEM







Youth working in mangrove reforestation

Mangroves are not trees, they are thousands of men, women, children, old men and old women, to whom God inherited their land; the mangrove is a way of living, singing and smiling. (Nelson Estupiñán Bass)

Los Manglares no son árboles, son miles de hombres, mujeres, niños y niñas, ancianas y ancianos a quienes Dios les heredó la tierra; el manglar es una forma de vivir, de cantar y sonreir. (Nelson Estupiñán Bass)