

Project Brief:

Sustainable Coastal Communities and Ecosystems: The Cojimies Estuary in Ecuador

The story of the Cojimies Estuary, on Ecuador's northern coast and watershed area, which contains the Mache Chindul ecological reserve—one of the few intact and functioning coastal forest ecosystems in Ecuador—is the story of a once pristine estuary where traditional fishing and gleaning activities abounded. Today's Cojimies, however, is in serious need of ecosystem rehabilitation—a place that has seen fisheries depletion, mangrove clearing, and a boom and bust cycle of shrimp farming. It is a place so isolated and lacking in government support, that governance is almost non-existent. Lastly, the Cojimies is the story of a people of the place living in extreme poverty with few means to make a living, especially from their former mainstay of fishing and gleaning.

At Issue

The health of the natural resources and biodiversity of the Cojimies Estuary and its surrounding watershed is threatened. The ecosystem faces imminent peril from past conversion of mangroves into shrimp ponds, drastic reduction in freshwater flows to the estuary from its seven rivers (only four of which still flow year round), a serious decline in cockles, a prolonged crisis of the shrimp industry, alterations in water quality, sedimentation, and deforestation. Yet, it is the very fisheries, bivalve collection, and small-scale agriculture of this same estuary upon which stakeholders have traditionally depended for their food and income. The Cojimies area urgently needs concerted efforts towards local management of natural resources and stabilization of the economic base. That is where the SUCCESS Program is helping.

Partners

To achieve sustainable coastal communities and ecosystems in the Cojimies Estuary and its watershed, SUCCESS supports efforts of national and local partners:

- [EcoCostas \(nongovernmental organization based in Ecuador\)](#)
- [Escuela Superior Politécnica del Litoral/ESPOL \(university\)](#)
- [Municipalities of Muisne and Perdenales](#)
- [Programma de Manejos de Recursos Costeros \(national coastal management program\)](#)



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PROGRAM GOALS

SUCCESS and its partners are building local and institutional capacity to manage and conserve the biodiversity of the estuary and its watershed. The goal is to promote best management practices—for example, in shrimp farming, *chame* (indigenous fish) culture, and agriculture; and to promote alternative livelihoods such as tourism, beekeeping, and gardening. These utilize local resources and are socially and environmentally sustainable. SUCCESS also seeks to rehabilitate the cockle fishery.

Develop diversified mariculture technologies using indigenous species (chame)



Chame from the Nuevo Milenio pond

The indigenous and once abundant *chame* are abundant today only in the few coastal estuaries with sufficient freshwater flows—e.g., the inland areas of the Cojimies Estuary. While financial and other factors make shrimp farming impractical for the small farmer, farming the indigenous *chame* offers a viable alternative. SUCCESS works with local farmers, to stock, grow, harvest, sell, and develop new markets for the fish and trials for growing shrimp and *chame* in the same pond (mixed polyculture) are promising.

Establish low impact eco-tourism enterprises and promote improved conservation

SUCCESS and its partners are developing tourism opportunities in the Mompiche-Portete-Bolivar corridor and teaching local residents to serve as tour guides. Of special interest are two barrier islands at the estuary mouth that have large beach areas and are nesting grounds for turtles and birds. Detailed mapping is helping define the islands' potential for tourism.

Diversify livelihoods

SUCCESS works with farmers and women to develop beekeeping skills and small beekeeping-related businesses. This includes improving the processing, packaging, labeling and marketing of honey and related products. SUCCESS also works with former cockle-harvesters (mostly women) on small-scale gardening for home consumption and sale. This includes identifying medicinal plants, important not only for biodiversity, but as a source of edible and saleable products, and an alternative to modern medicine.

Practice sustainable agroforestry for improved watershed management

Multi-cropping of passion fruit and cacao is helping improve land use and providing short-term and long-term livelihoods. Both passion fruit and cacao are increasingly in demand in Ecuador, are easy and inexpensive to grow, and are good producers. Further, cacao begins producing just as the passion fruit production begins to decline with the aging of the vines. Such multi-cropping helps ensure both rapid and long-term economic benefits for local families. Planting this and other ground cover crops helps reduce sedimentation and maintain integrity of the watershed of the Mache River, a principal tributary of the Cojimies Estuary.

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