Project Brief: *Sustainable Coastal Communities and Ecosystems:* in Tanzania

This is the story of three coastal sites in Tanzania—within the Menai Bay Conservation area on Zanzibar, a shallow lagoon in Bagamoyo and a mangrove estuary in Mkuranga district on the mainland. All have important biodiverse assets including estuaries, watersheds, mangrove forests, beaches, coral reefs, seagrass beds, and rare species of wildlife. Each also faces threats from increasing populations, widespread poverty, poorly planned economic development, under-resourced government institutions and weak implementation of existing coastal policies and laws. It is also the story of progress in addressing this situation through an approach that links the national overarching coastal framework with implementing actions on-the-ground.

At Issue

One of the most pressing and challenging aspects of integrated coastal management is the "implementation gap" (good policies and plans, but weak implementation on-theground). This is the challenge facing Tanzania and the SUCCESS Tanzania Program. In response, the Program is providing local and district-level individuals and institutions with the skills to help in promoting collaborative fisheries management and developing small-scale enterprises and income generation through mariculture. The Program recognizes these efforts must be linked to a wide array of other management issues, in order to ensure that not only the coastal environment is conserved and protected, but the quality of life of those who live there is improved. SUCCESS uses the extension approach to this challenge. It works with partners to identify problems and implementation gaps; build the skills of those working at the district and local levels to solve these problems; action research and piloting of better practices to increase chances for success; provide hands-on technical guidance through training, extension "how-to" guides; and work with appropriate government institutions at all levels to encourage continued support to those performing the action on-the-ground.

Partners

To achieve sustainable coastal communities and ecosystems in these three areas, SUCCESS Tanzania supports the efforts of local and national partners, including:

- WIOMSA (Western Indian Ocean Marine Science Association)
- IMS/UDS (Institute of Marine Sciences, University of Dar es Salaam
- TCMP (Tanzania Coastal Management Partnership)
- Districts of Mkuranga and Bagamoyo
- Menai Bay Conservation Area, Zanzibar



PROGRAM GOALS

The SUCCESS goal is to improve the quality of life of the people of the place while protecting the biodiversity of the rich marine resources in the Program sites. In Tanzania, this includes developing supplemental livelihoods in small-scale, sustainable and ecologically friendly mariculture enterprises with high potential to generate income and produce food, but to date remain relatively underdeveloped. The Program also promotes a community-based approach to resource management and small-scale zoning.

Promote sustainable, low-technology mariculture practices for food and income

SUCCESS is piloting a number of selected mariculture activities that are environmentally low-impact, and offer the best potential for adoption by and benefit to local communities. These include shellfish, pearl, seaweed, and milkfish farming. In the latter, SUCCESS is assisting a group of pioneering milkfish farmers in how to construct and manage fish ponds, collect fingerlings, stock the ponds, market their harvest and calculate costs.

Seaweed farming is being demonstrated in Bagamoyo district on the mainland and in Zanzibar, using the floating-line method as an alternative to the off-bottom method. The former technology reduces seasonal die-offs and disease that plague the off-bottom approach— thereby raising productivity, production, and income for seaweed farmers.

Women in Menai Bay depend on shellfish collection for livelihood. However, as the number and size of wild shellfish decreases over time, they must venture farther into the ocean to gather. Farming of half-pearls *(mabe)* and making saleable jewelry from the final product is being piloted as an alternative. This activity has proven economically, socially, and environmentally viable. This opportunity is being promoted through hands-on training and distribution of extension publications outlining the "how to".

Promote community-based and district-scale resource management & zoning



Anadara cockles harvested from reef flats

To sustain the collection of wild cockles in the Menai Bay Conservation Area, SUCCESS is working with three villages on establishing community-managed no-take zones. Villagers have identified these zones, developed rules, penalties for infractions, defined the roles of the village management committee, and jointly developed a management plan. Together with scientists, communities are monitoring cockle abundance and size inside and outside the no-take areas to gauge their conservation performance.

SUCCESS is working with partners to designate zoning areas in Mlingotini Bay for seaweed farming, fishing and boat traffic channels, and mooring areas—all to reduce user conflicts. This includes producing a base map that clearly identifies different use areas. SUCCESS is also mapping the estuary in Mkuranga—in this instance for use in establishing carrying capacity and allowable areas for milkfish mariculture.

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