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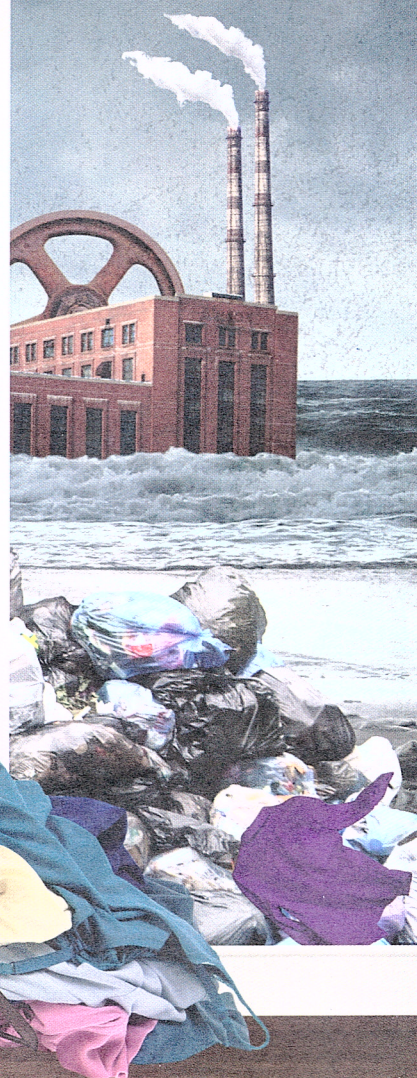
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Summer/Fall 2019



Protecting Forests by Building Schools

How a California non-profit makes deals to protect island habitats.

By Nithin Coca



Photo courtesy of Seacology

Famous for their biodiversity, mangrove forests grow between land and sea in tropical regions around the world. But they're under threat, facing destruction at a faster rate than all other tropical forests. Coastal development clears them away, while overfishing and pollution harm their vitality. When mangroves disappear, coastal communities lose a crucial buffer against tropical storms, which are growing more extreme with climate change, and the world loses an important ecosystem that sucks up carbon at rates up to 50 times greater than other forests.

Seacology—anon-profit based in Berkeley, CA, and dedicated to environmental conser-

vation on islands—saw this challenge clearly. So, in 2015 it took a gamble to protect all the mangroves in Sri Lanka. The project was exponentially bigger than anything Seacology had attempted before. Its budget of US\$4 million far outpaced the US\$25,000 Seacology spent on a typical project.

"Most of our projects take place in one, two, or three villages. This takes place in 1,500 villages at the same time," said Duane Silverstein, executive director of Seacology.

To administer the project, Seacology partnered with Sudeesa, a Sri Lankan NGO focused on the economic empowerment of fishing communities in Sri Lanka. After Sudeesa identified women's groups as key

partners for protecting mangroves, Seacology and Sudeesa offered them a simple trade: They asked villages to protect local mangroves in exchange for giving women who live there microloans to start small businesses. It worked, with villages signing up to protect an average of 21 hectares of forest.

This approach is based on a model Seacology has used for 30 years to protect more than 600,000 hectares of forests and marine habitats in 60 countries across the world. Seacology was founded in the early '90s by ethnobotanist Paul Cox, who was doing research in Samoa. He saw a village being pressured into selling logging rights for territory they controlled, because they

start small

wanted a school. So, he struck a bargain: What if he paid for the school in exchange for preserving the forest? It worked—and that forest still stands today.

It's a formula Seacology has used ever since: conserving island habitats by providing locals with some form of infrastructure or service in return for protecting a land or marine area. In Samoa, that meant a school. In Mandalamekar, Indonesia, villagers asked for a community building in exchange for protecting 108 hectares of rainforest and replanting 29 hectares. In Sitio Lobo, Philippines, the T'boli and Manobos tribes took a micro-hydro generator for protecting a watershed forest.

It's a labor-intensive process. Seacology has to invest significant resources in field staff to identify villages where locals are sel-ling land to meet a local need that Seacology could fund in exchange for preservation. The model also has other limitations. It only works where locals have control over the land, but many poor communities lack legal title over their territory.

In Sri Lanka, 12,300 women have received microloans of US\$100 or less, and job training. Many of them are widows who lost their husbands in the recent civil war and belong to the marginalized Tamil minority in northern Sri Lanka, where mangroves were heavily damaged during the 26-year-long conflict. Elsewhere, vast tracts of mangroves were cleared to build shrimp farms. Now, Seacology and Sudeesa are offering an alternative: low-interest microloans for women in exchange for mangrove protection and restoration.

So far, villagers have preserved 8,815 hectares of mangroves and the program has helped the community create economic alternatives to cutting mangroves. Some women are using loans to run small markets or raise livestock, while others set up small fishing operations or home gardens. The loans have proven sustainable with a repayment rate of over 90%. Seacology gives the repaid funds to community organizations, who use them for ongoing loans.

The project has drawn international attention, including a 2018 United Nations Climate Action Award. At a 2016 event celebrating mangrove preservation, Dhammika Wijayasinghe—secretary-general of the Sri Lanka National Commission for UNESCO—said she hoped other countries with mangrove forests would follow Sri Lanka's lead.

Many places, such as the Sundarbans in the Bay of Bengal or the islands of the Pacific, could benefit from a project on the scale of Sri Lanka's, said Silverstein. He added that Seacology hopes to pursue more large-scale projects and is currently negotiating other opportunities.

As climate change puts more coastal communities in the path of rising seas and stronger storms, preserving and restoring mangroves will become increasingly important. In Sri Lanka, Seacology has shown how to do this in a way that empowers local people, while having a global impact.

"The world is a smaller and smaller and smaller place," said Silverstein. 