

Mangrove-friendly Aquaculture

How might aquaculture become mangrove-friendly, and how might smallholder get involved in the development?

Initial Situation

Land-based aquaculture in tropical coastal regions still poses serious threats on coastal ecosystems through the requirement for space. In most cases, mangrove forests are clear-cut for the sake of giving space to aquaculture ponds. Because of decreasing productivity and increasing disease risks, such ponds are usually abandoned after 5-10 years, and new mangrove areas are being clear-cut, while the abandoned aquaculture ponds cannot easily be re-colonized naturally or reverted into mangroves. Hence, the production of seafood in aquaculture ponds counteracts the provisioning of many ecosystem services of mangroves to local communities – numerous stakeholders would benefit from mangrove-friendly aquaculture through the multiple co-benefits of protecting, managing and sustainably using mangroves.

Challenge Description

Diverse expertises are of great interest to develop new approaches and solutions for mangrove-friendly aquaculture. Small holder farmers on their own do not have enough resources to develop and test new sustainable business models and solutions for mangrove-friendly aquaculture themselves. Applicant teams can use the Call for Ideas to develop several idea approaches and solutions for mangrove-friendly aquaculture that are interesting for smallholders and can be potentially implemented by them. With this initial pool of ideas, the teams can study in the incubator the regional context and user perspective in more detail together with the smallholder farmers and other experts and jointly develop innovative solutions. The best way to develop ownership for new approaches and solutions is to have actively participated in the development itself.

For Smallholder farmers, these new ways of mangrove friendly aquaculture are first a risk and they are skeptical if they can still maintain their incomes. The question is how to turn smallholder farmers into enthusiasts for mangrove friendly aquaculture and take away their fear of sustainability aspects and animal welfare? How can smallholder farmers even become the leaders of mangrove friendly aquaculture? What role can large companies play here in the development process and implementation?