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Financing solar-powered cold-storage for Indonesian fishing communities

Traditional fish markets lack refrigeration facilities.

Background

There are 800 small fishing ports in Indonesia, many of them without proper cold storage and ice-making facilities. This leads to considerable spoilage.

The Government of Indonesia has the aim to upgrade many fishing ports in off-grid and under-serviced areas to 'eco-fishing-port' status, with both financial and energy self-sufficiency. It is also committed to mobilising renewable energy to further expand the cold chain in the regions.

For the ports and their communities, there is the need to quantify the financial benefits of the solar-powered installations, to structure appropriate financing and business models, and to run pilots demonstrating both viability and replicability.

Project purpose

To catalyse the financing of solar-powered fish cold-storage and ice-making installations for eco-fishing-ports in Indonesia.

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Main activities and outputs

- Assess the need for cold-storage and ice-making facilities in 33 small fishing ports targeted to become eco-fishing-ports
- Select a pool of 12 diverse locations from these 33
- Quantify the potential financial, benefits for the ports and local fishing communities
- Map out the economic relationships between port authorities, fishermen and local communities to serve as input for the business model
- Establish a business model to capture these financial benefits
- Set up a financing model, possibly leasing, and establish model contract format between operators and banks
- Set up six model facilities and source financing for them
- Manage the engineering and installation of the six
- Coach operators and users in technical and commercial issues
- Monitor the impacts of the model facilities together with government agencies

Project Information

Location:
Indonesia

Duration:
2013–2014

Sector:
Renewable Energy

Thematic focus:
Energy and food

Total project budget:
€ 296,000

REEEP grant:
€ 148,000

REEEP donor:
Switzerland

Co-funding:
€ 148,000 from the European Union

Implementing partner:
Contained Energy

Expected impacts

- Increased yield of sellable catch by up to 50 % through drastic reduction in spoilage
- Increased income for fishing communities thanks to improved value of fish catches and opportunity to export
- Reduced carbon emissions from increased use of renewables in cooling chain
- Extension of the formal economy deeper into remote areas, increasing general commerce
- Improved financial viability for eco-port operators currently operating at a loss

Solar powered-cold-storage can reduce spoilage.