



Transitioning to Low Carbon Sea Transport

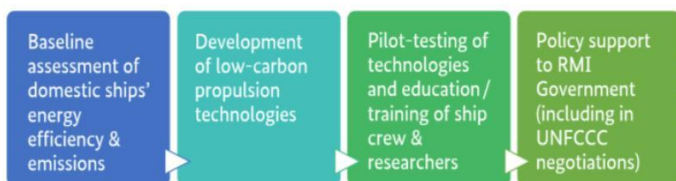
Project Concept for Low-Emission Sea Transport in the Marshall Islands, the Pacific Region, and Internationally

The challenge

The Republic of the Marshall Islands (RMI) relies on maritime transport for economic activity, connectivity and resilience. Connectivity, especially for the remote islands and atolls, is vital for access to services and socioeconomic opportunities for citizens. Sea transport also ensures the delivery of education, health care, and environmental and economic development, and plays a role in responding to climate change impacts.

As RMI is almost entirely dependent on imported fossil fuels, the costs of such services are high and a heavy burden on national and household budgets. Shifting to renewable energy sources could help reduce this burden and would support more inclusive and sustainable economic growth for the country.

RMI is a world leader in advocating for action on climate change and the only country to explicitly include domestic sea transport in its Nationally Determined Contributions (NDCs). In December 2020, the country set the goal to reduce its greenhouse gas emissions from domestic shipping by 40% by 2030. Levels of



Project name	Low Carbon Sea Transport
Commissioned by	German Federal Ministry for Economic Affairs and Climate Action
Project location	Majuro, capital of the Republic of the Marshall Islands, Pacific island region
Lead executing agency	Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH
Implementing partners	Ministry of Transportation & Communication, Republic of the Marshall Islands University of Applied Sciences Emden-Leer Waan Aelōñ in Majel Ministry of Finance, RMI Climate Action Network Independent Diplomat
Duration	2017-2023

comparison were those of 2010. Full decarbonisation is to be achieved by 2050.

Objective

Domestic sea transport in the Marshall Islands is reducing carbon emissions and transitioning to energy-efficient maritime transport.

Approach

By making RMI's sea transport greener and raising energy efficiency, the project is helping the country achieve its NDC. Ultimately, this will reduce transport costs and benefit public agencies, private companies and the people of RMI.

Photo: "Majuro in the Marshall Islands," © Christopher Michel, 2004, used under a Creative Commons Attribution license

In cooperation with:



Left: Prototype Catamaran Type "WAM" from the Boatbuilding Program 2020 (WAM-Canoes of the Marshall Islands) Photo @Raffael Held. Right: Preliminary 50m sailing cargo ship design Photo @University of Applied Sciences Emden Leer

The project introduces a wide range of climate-friendly solutions. One of these is developing and pilot-testing low-carbon propulsion technologies in cooperation with partners. Other steps are educating and training ship crews and researchers, as well as using modern energy-efficient sailing technologies and renewable energy. The project takes a two-phase approach. First, it works with partners to assess the fleet's economic efficiency and emissions. The baseline data from this are to be used to develop and analyse various low-carbon propulsion technologies for all shipping needs.

Second, it is designing and building a ship with the selected propulsion technologies and having it tested by the Marshall Islands Shipping Corporation (MISC). Parallel to these activities, the project also provides policy support to the RMI Government throughout the project term. This comes to bear in climate negotiations at the International Maritime Organization (IMO), the United Nations Framework Convention on Climate Change (UNFCCC) and others.

Data collection essentially concentrates on the use of state-owned cargo vessels, their fuel consumption and their level of emissions. The outputs of the project will be shared with other Pacific island countries and countries in other parts of the world.

Results

Two boatbuilding workshops were successfully conducted with 13 Marshallese trained in traditional canoe building skills and energy-efficient technology introducing cost-efficient and sustainable boatbuilding methods.

Funding for a trial electrical propulsion kit was acquired.

Two sailing trainings were conducted on the cargo Sailing Vessel Kwai with more than 50 participants from the MISC.

The government of the Marshall Islands has purchased its first sailing cargo vessel for the domestic fleet to service national waters.

In 2018, the project supported the Marshallese government to organise and facilitate the first Virtual Summit of the Climate Vulnerable Forum. Its aim is to work towards effective cooperation among nations most vulnerable to climate change.

Together with Independent Diplomat, the project supports the RMI Government in actively participating at high-level policy negotiations and conferences such as the High Ambition Coalition and the IMO.

Published by:
Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

Registered offices:
Bonn and Eschborn, Germany

Address:
Köthener Straße 2-3, 10963 Berlin, Germany
www.giz.de

Project:
Low Carbon Sea Transport

Responsible/Contact:
Raffael Held
raffael.held@giz.de

Authors:
Dr. Christian Fedlmeier, formerly GIZ Fiji
Raffael Held, GIZ Majuro, Marshall Islands

Design/layout:
Evelyn D. Añago

GIZ is responsible for the content of this publication.

On behalf the German Federal Ministry for Economic Affairs and Climate Action
Majuro, Marshall Islands, October 2022