

Development of a WAVE FORecasting system for the Maldivian Archipelago (WAVE4M) Maldives

THE PROJECT

The project involves the creation of a wave motion forecasting system in the Maldives archipelago, which will be provision of the Maldives Meteorological Service, (MMS), in Malé.

BACKGROUND

Due to the low elevation above sea level, the Maldives is constantly under the threat of possible flooding. Difficult weather conditions at certain times of the year, especially in the monsoon season, greatly increase risk factors. In order to increase people's safety, to protect the coastal developing activities, (in particular fishing and tourism), and to safeguard coastal infrastructures, it is particularly important to equip the Maldives with adequate tools for predicting wave motion.

OBJECTIVE

Development of an operational wave forecasting system.

PLANNED ACTIVITIES

- Creation of a model for wave motion analysis in the Maldives archipelago, through the collection of existing local data and products and the development of a new high-resolution system.
- Implementation and validation of the operating system for wind and wave forecasts, in the Maldives archipelago, and border conditions.
- Transfer of the operating system, developed in the previous phase, within the IT tools available to the Maldives.
- Training of local personnel on: system configuration, operational management, development models, personalization and data assimilation.
- Installation, at the Maldivian Meteorological Center, (MMS), of a system that allows the view of forecasts on the state of the sea.

SUBJECTS

Promoters:

- Italian Ministry of the Environment, Land and Sea
- Maldives Ministry of Environment and Energy

Actuators:

- ENEA
- Maldivian Meteorological Center, (MMS)

DURATION

March 2018 – March 2023

TOTAL COST OF THE INITIATIVE

€ 605,670

Lender: MATTM

Other lenders: ---

CONTRIBUTION TO

- ➔ **NDC Maldives:** expansion and strengthening of the early warning system to cover the entire territory of the Maldives.
- ➔ **Agenda 2030:** Goal 9 - Innovation and infrastructure; Goal 13 - Actions for climate.

OUTPUT

- Regional model for wave motion analysis, developed and tested. ✓
- Operating system available to the Government of the Maldives and the Maldives Meteorological Service, capable of producing daily wave forecasts and covering the entire area of the Maldives archipelago. ✓
- Trained MMS Personnel. ✓