

IMPLEMENTING IWRM IN ATLANTIC AND INDIAN OCEAN SMALL ISLANDS



PROTECTING A FRAGILE FRESHWATER LENS

The Maldives is not endowed with an abundance of freshwater – inhabitants of the archipelago depend on rainwater and groundwater aquifers to meet their needs.

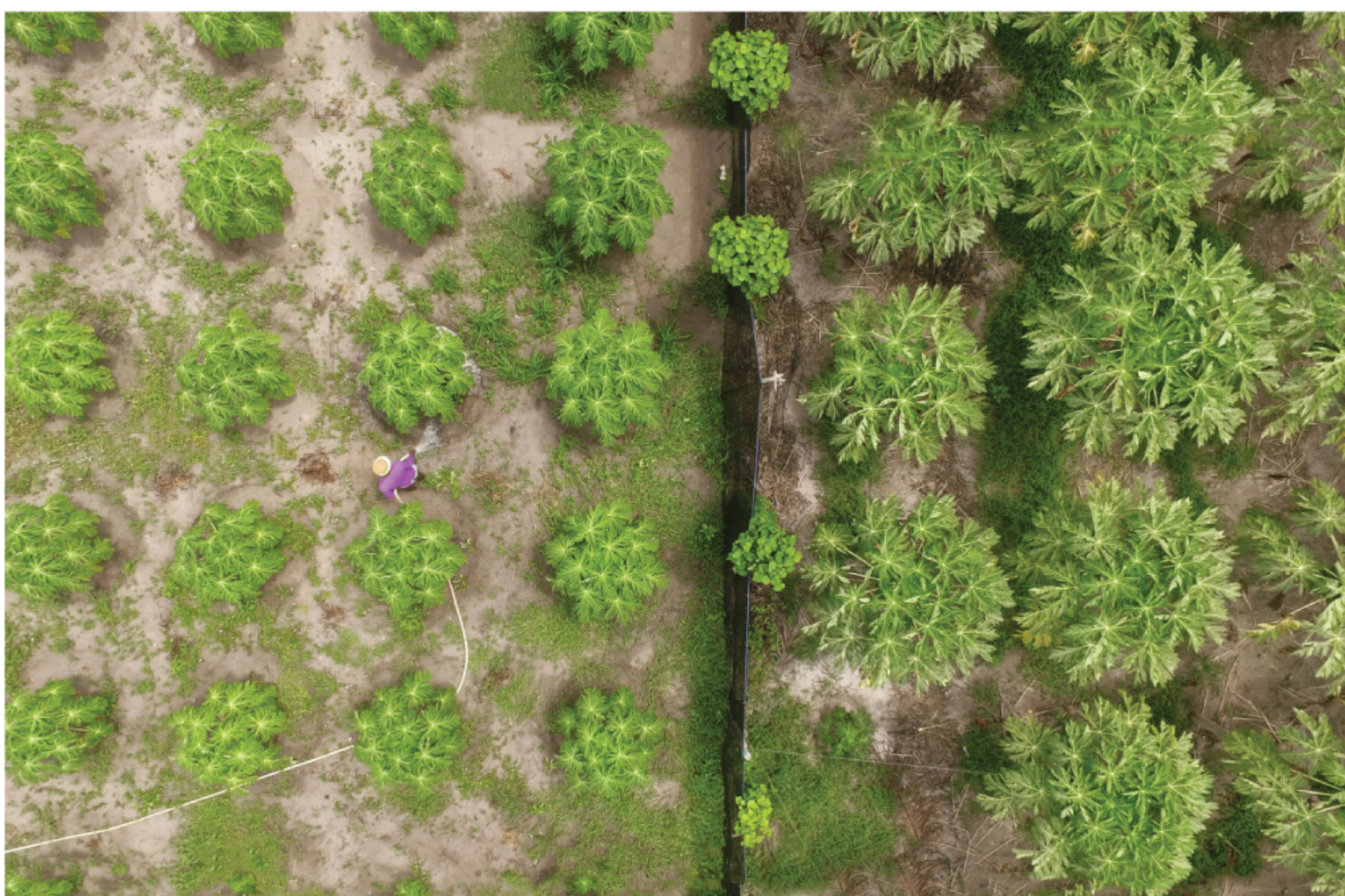
In the capital city of Malé, and the smaller towns of Villingili, Hulhumale desalinated water is supplied to households via a metred network, but on the most of the outlying islands water is drawn from shallow, hand-dug wells and household or community-owned rainwater tanks.

On Thoddoo, an oval-shaped island located 67 km from the

Maldivian capital of Malé, groundwater is heavily exploited for agriculture; about 75 percent of the land is used the cultivation of papaya, watermelon, betel, chillies and leafy vegetables.

Approximately 100 farmers tap into Thoddoo's freshwater lens on a daily basis, using the water to irrigate their crops. However, the groundwater aquifer is extremely susceptible to contamination from wastewater and agricultural chemicals: it is often foul smelling and discoloured, and in some areas farmers have abandoned fields because the salinity of the groundwater makes it unsuitable for irrigating crops.

Both farmers and citizens of Thoddoo have expressed concern about the contamination of the island's freshwater lens and an Integrated Water Resources Management (IWRM) demonstration project has been initiated.



OBJECTIVES

The IWRM demonstration project that is being implemented on Thoddoo Island will not only help to protect the island's precious freshwater lens from contamination and improve the quality of life of Thoddoo islanders, it also has the potential to protect freshwater supplies on other islands through the testing of new technologies and the introduction of IWRM approaches to the agricultural sector.

A major constituent of the demonstration project is the establishment of an integrated water supply system. This comprises the infrastructure required to collect and store rainwater, a desalination plant and a water distribution network that will see every household on Thoddoo Island receiving clean drinking water.

Although the IWRM demonstration project includes a large infrastructure development component, it also has a "soft" component that will educate and sensitise the people of Thoddoo Island about the fragile nature of the freshwater lens and the need to protect its integrity.

PROGRESS

A portable water supply network that mixes rainwater and desalinated water has been established, based on an environmental impact assessment. It was launched by the President of Maldives and is now supplying the entire population of Aa. Thoddoo island. An information campaign on the system design and its overall lens protection goal was conducted.

Staff from the Ministry of Fisheries and Agriculture organized workshops targeting farmers to train them to best agricultural practices such as correct usage of fertilizers, pesticides, chemicals, best irrigation practices and usage of water in farms.

Staffs from the Ministry of Health conducted a session on health and water. In parallel, an awareness raising campaign on the need to protect the water lens was launched.

A monitoring system to analyse the impact of the project the water lens was put in place and lab equipments were purchased.

Maldives had committed to co-finance USD 512,200 and realized USD 1,828,809, achieving 357% of its initial target.



Scope: Regional
Countries: Cabo Verde, Maldives, São Tomé and Príncipe, Mauritius, Seychelles, Comoros
Partners: UNEP, UNDP, UNOPS
GEF grant: USD 10,670,000
Co-financing: USD 39,422,535
Project website: www.aio-iwrm.org

