

U.S. Mission to Maldives

Malé

PRESS RELEASE

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USAID partners with INVENA and MIT to scale up an innovative sand accumulation technology that addresses coastal erosion

MALÉ, Maldives – The United States Agency for International Development (USAID) and INVENA (PVT) Ltd. have signed an agreement to scale up a technological solution to coastal erosion that mimics nature by harnessing ocean currents to accumulate sand.

Rising sea levels and coastal erosion are significant threats to Maldives, a low-lying island nation in the Indian Ocean. INVENA, along with its technology partner the Self-Assembly Lab at the Massachusetts Institute of Technology (MIT), have piloted a nature-based solution that minimizes coastal erosion by placing underwater structures that harness ocean currents and wave forces to accumulate sand strategically.

The structures with their defined geometry and placement support the transportation of sediment to naturally gather sand around the structures. This method is more environmentally friendly than the traditional way of building seawalls, groins, and sand pumping, and will significantly reduce environmental impacts and lower the cost of installation.

As Maldivian communities face significant exposure to risks associated with coastal erosion induced by climate change, this partnership aims to enhance community resilience. This partnership also contributes to the Nationally Determined Contributions (NDC) of the Maldives, which aims to promote the use of evidence-based decision-making on coastal adaptation planning and management of coastal zones.

The partnership, signed Monday, comes in the form of a nearly \$250,000 grant from USAID's five-year Climate Adaptation Project to INVENA, a Male-based research and technology

company developing sustainable solutions to fight climate induced threats to low-lying island nations. Under this partnership, USAID will support INVENA to scale up the technology and explore its commercial feasibility.

“Support for conservation and adaptation is of urgent significance in Maldives given the country’s vulnerability to the effects of climate change,” said Mission Director for USAID Sri Lanka and Maldives Gabriel Grau. “We trust that lessons learned from this research can help the Government of Maldives use the technology to fight coastal erosion in communities across this island nation.”

“Through this grant, we hope to prove the scalability of the technology developed in collaboration with the MIT supported Self-Assembly Lab,” said Sarah Dole, INVENA co-founder. “This will enable us to mainstream our technology as a coastal protection mechanism for communities globally.”

USAID’s Climate Adaptation Project is one component of the United States’ long-standing partnership with Maldives aimed at enhancing the capacities of the government, private sector, and local communities to adapt to climate change. The project’s grants program aims to develop and deliver innovative, scalable, sustainable, commercially viable, and market-driven solutions that can reduce risk to communities and livelihoods in the tourism, fisheries, and agricultural sector in Maldives. The grants program also encourages applications involving public-private partnerships that demonstrate collaboration with local government entities such as Island Councils and Women’s Development Committees.

To find out more about USAID’s work, please see: <https://www.usaid.gov/maldives>