

Rising Sea Levels: Threat for the Maldives

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Summary

The Maldives faces an existential threat due to climate change. To deal with this environmental emergency, the Maldivian government has taken several measures. However, the island country's future depends on the commitment of toxic gas emitting countries cutting down their greenhouse gas emissions.

On 26 August 2021, the Chinese company, Sino Soar Hybrid (Beijing) Technology, won the bid for the 12 Islands PV-Diesel-Battery Mini-grid Project in [Thaa Atoll Maldives](#). The contract was signed on 29 November 2021. The project is supported by the [Asian Development Board](#) (ADB). Sino Soar will install 2.5 megawatts (MW) of solar photo-voltaic and 975 kilowatts [Battery Energy Storage System](#). It is estimated that the project will help the Maldives avoid the generation of about 2,900 tons of [carbon dioxide](#) and save approximately 12 million Maldivian Rupees (S\$1.06 million) [annually](#).

Greenhouse gas (GHG) [driven](#) climate change threatens the existence of [the Maldives](#). According to multiple reports from the National Aeronautics and Space Administration and the United States Geological Survey, almost 80 per cent of the Maldives could become uninhabitable [by 2050](#). Sharing serious concerns and consequences of the climate change on the Maldives, at the recent United Nations Climate Change Conference in Glasgow, the president of the Maldives, Ibrahim Mohamed Solih, said, "...If we do not reverse this trend, the Maldives will cease to exist by the end of this century...If the rise in temperature remains unchecked at 1.5 and jumps to 2 degrees; that is a death sentence to [the Maldives...](#)"

At present, 80 per cent of the total islands of the Maldives are just a metre above sea level, making them vulnerable to [rising sea waters](#). Ninety per cent of the islands have reported flooding and 97 per cent of them have reported problems of [beach erosion](#).

The Maldives is enhancing adaptation and building climate resilience to reduce [climate risks](#). At present, the country spends more than 50 per cent of its national budget on adapting to [climate change](#). It is experimenting with 3-D printed coral structures or a floating city. It is home to the Modular Artificial Reef Structure, a coral-forming project on the [Summer Island](#) and will start the construction of a floating island city in 2022. The project is designed by the Dutch Docklands and expected to be completed over the next five years.

In 2008, the Maldives planned to divert a portion of its tourist revenue towards buying a new homeland. Then president-designate Mohamed Nasheed said, "We can do nothing to stop climate change on our own and so we have to buy land elsewhere. It's an insurance policy for the worst possible outcome. After all, the Israelis [began by buying] land in [the] Palestine... We do not want to leave the Maldives, but we also do not want to be climate

refugees living in tents for [decades](#).” At that time, Nasheed said that Sri Lanka and India were possible options as they have similar culture, cuisine and climate. Australia was also considered due to the availability of large tracts of [unoccupied land](#).

Besides, the Maldivian planners have worked on constructing artificial islands. An example is Hulhumalé. Construction of the island began in 1997 and official settlement in the island was inaugurated in 2004. Reclamation projects have enlarged several other atolls. One of them is Thilafushi. Gulhifalhuea is the site of another land reclamation project that is opening up new [manufacturing and industrial space](#) in the country. However, the land reclamation projects affect the [coral reefs](#). The Maldives is also planning to [build sea walls](#) with the help of external support.

To reduce emission and dependence on fossil fuels, the Maldives aims to increase its renewable energy capacity to 85MW by 2023, of which 75MW [would be solar](#). The Maldives has peak load of about 270MW, and it only produces [21MW](#). Further, it is setting up an 8MW waste-to-energy plant in Greater Male region with support from the ADB. In September 2020, the Asian Infrastructure Investment Bank (AIIB) agreed to provide a loan of [US\\$40 million](#) (\$54.78 million) for the waste-to-energy project that is likely to be completed by 2024. The project is funded under the Joint Crediting Mechanism, wherein the AIIB loan is supported by the ADB and Japan. The waste-to-energy project can handle up to 500 tonnes of waste [per day](#). The country is also examining ocean thermal energy conversion and green [hydrogen](#).

In 2020, the updated Nationally Determined Contribution of Maldives came out with a plan to reduce 26 per cent of the country’s emissions [by 2030](#). In May 2021, Solih ratified the Climate Emergency Act, which stipulates actions to address the climate emergency. The Act includes a complete framework of the Maldives’ “ambitious” plan to achieve net-zero carbon emissions [by 2030](#).

Despite all such measures, the Maldives is highly dependent on other countries. The country’s share in the global GHG emissions is only [0.003 per cent](#). Hence, the commitment among the major GHG emitting countries to cut down their emission-level holds the key to addressing climate risks faced by the Maldives.

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