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Climate Change and Green Financing: Initiatives & Outlook in South Asia

Country Paper

MALDIVES

Introduction

The Maldives is an archipelago of islands, consisting of about 1,192 small, low-lying coral islands which are grouped into 26 natural atolls. The country consists of just under 1,192 small tropical islands out of which about 358 are used for economic activities and human settlement. The total land area of the Maldives is estimated to be approximately 298 km², making the country the sixth smallest in terms of land area, as well as one of the world's most geographically dispersed sovereign states. Lowest and flattest countries in the world as over 80% of the total land area is less than 1 meter above mean sea level. The driving force of Maldives' economy is tourism, which contributes about one third of the gross domestic product (GDP) and is also the fastest growing economic sector within the country.⁶ Though the contribution of fisheries and agriculture to GDP has declined to 3.5% and 1.7% respectively, these sectors are a major source of income and subsistence for rural communities.

Climate Change risks

Maldives is very vulnerable to natural disasters and catastrophic climatic events because to its fragile biological character, low elevation, and economic dependency on a small number of industries. Coastal flooding, saline water intrusion into aquifers, coastal erosion, ocean acidification, coral bleaching, more frequent extreme rainfall events (heavy rain, droughts), heat waves, longer dry seasons, shorter rainy seasons, and higher average temperatures are some of the major risks. The effects of climate change and its impact are detailed as below:

Critical Infrastructure: The shoreline is quite close to critical infrastructure, including hospitals, waste management facilities, transportation and communication infrastructure, and utility services. These facilities are vulnerable to risks along the shore, including swells from the sea, storm surges, and associated coastal floods.

Water Resources: The primary sources of freshwater in Maldives are rainfall and groundwater. Freshwater resources in the Maldives are impacted by climatic and nonclimatic variables, including population expansion, population concentration, and pollution. Additional evidence of the elevated danger of salinizing groundwater was provided by inundation models. Reverse osmosis (RO) technology is being used more often to desalinate water and deliver clean, safe water to communities. According to future climate estimates, the Maldives might have trouble getting enough rain to fill reservoirs.

Coral Reefs: The Maldivian atolls are the biggest reef system in the Indian Ocean and the sixth largest reef system overall. The rise in sea surface temperature has the most serious effects on coral reefs. With predicted climate change, bleaching occurrences will become substantially more severe. The communities of coral reefs are becoming increasingly

threatened by ocean acidification. Threats include net erosion of reef structures, which might have long-term effects on coastal protection, as well as loss of the reef's structural integrity, which serves as a habitat for a variety of creatures that are essential to the ecosystem as a whole.

Agriculture and Food Security: Major concerns to national food security include limited agricultural productivity, high import dependence, storage restrictions, and difficulties in the transportation of food across the country. The productivity of agriculture is restricted by the small size of islands and the scarcity of freshwater. Extreme weather conditions enhance this susceptibility even further, particularly when the freshwater lens is flooded as a result of surges, sea swells, or high waves. Extreme weather would also affect both intra- and inter-island food delivery.

Human Health: Climate change will have direct and indirect impact on human health. In Maldives heat and extreme weather events, especially floods due to heavy rainfall have direct health impacts. Indirect health effects of climate change include secondary effects caused by changes in ecology and social systems.

Fisheries: The primary elements that might have an impact on fisheries in the Maldives are changes in sea surface temperature and ocean pH. The Maldives fisheries is predominantly dependent on tuna fisheries. The tuna fishing sector is impacted by other oceanic changes including the periodic monsoon. Since marine life particularly tuna, account for over 90% of exports, any substantial shift in the species' abundance or catchability will have considerable impact on the economy.

Tourism: The Maldives' tourism industry is extremely sensitive to the effects of climate change since the sea, sand, and sun are three main attractions for visitors. Increased temperatures, more frequent extreme weather events, rising sea levels, and modifications to marine biodiversity are some of the significant effects of climate change on the Maldives tourist industry. Given that tourism is the primary industry in the Maldives, any negative repercussions on the industry would have a significant negative economic impact.

Climate Change Policy Initiatives

Some of the policy initiatives that are in place to address the climate change risks includes the following:

I. Strategic Action Plan

Strategic Action Plan for 2019 -2023 (SAP) formulated by the President's Office (PO) of the Government of Maldives (GoM) includes policies, strategies and

timebound actions across 33 subsectors grouped under five broader thematic areas or sectors, that align with Sustainable Development Goals such as Clean Water and Sanitation, Affordable and Clean Energy and Climate Action amongst others. Six of the 33 subsectors in the SAP are represented by the Blue Economy Sector. These include diverse thematic areas ranging from tourism, small and medium enterprises, fisheries and marine resources, agriculture, economic diversification to labor, employment, and migration. Sector 4 of SAP focuses on climate action, climate finance, renewable energy, and energy efficiency.

II. Nationally Determined Contribution of Maldives:

Maldives continues to uphold its efforts to climate change actions under the NDC (part of the commitment to Paris Agreement). Maldives' NDC identifies the country's significant vulnerability to the impacts of climate change to the country's population and economic activities, most notably its fisheries, tourism, agriculture, infrastructure and health sectors. Maldives had submitted a revised NDC in 2020 and some of the key highlights from the updated NDC include:

- a. a conditional emissions reduction target of 26% by 2030 compared to business as usual.
- b. to achieve net zero by 2030 depending on the international support received.
- c. The adaptation component of the revised NDC includes disaster risk reduction and management.
- d. This includes improving the country's preparedness for possible future extreme weather events and strengthening collaboration with other island communities.

III. The Climate Emergency Act

The Climate Emergency Act stipulates actions to address the climate emergency resulting from the swift acceleration of the severity of the repercussions from climate change. It introduces the legal structure and guidelines for addressing issues and concerns related to climate change, including reporting, ensuring the sustainability of natural resources, overcoming negative impacts and allocation of funds for renewable energy sources. The Act further includes the complete framework to achieve net-zero carbon emissions by 2030.

IV. The Maldives Energy Act

This Act establishes a legal framework of standards and laws for the provision of energy in the Maldives, dealing with both the production and consumption of energy. This Act establishes the rights of consumers and the rights of service providers, including the quality providers must uphold and the responsibility to

price reasonably. Furthermore, this Act covers enhancing energy in order to establish energy services that are sustainable and safe for the environment. the Act stipulates tolerance for climate change and awareness of the carbon footprint, indicating measures to reduce expenditure and promote greener methods and technology of generating and disseminating energy.

Financing Climate Change Risks

The efforts to mitigate or adapt to climate change effects is largely dependent of financing from international organization and state budget. The role of the financial sector remains limited in financing for climate risk mitigation and adaptation activities.

Some of the sources include:

- a. International Climate Funds (Global Climate Fund (GCF), Global Environment Facility (GEF), Least Developed Countries Fund (LDCF), Adaptation Fund
- b. Other UN Sources United Nations Environment Programme (UNEP), United Nations Development Programme UNDP, UN International Strategy for Disaster Reduction (UNISDR)
- c. Multilateral Financial Institutions
- d. Bilateral Assistance
- e. Public Sector Investment Programme (PSIP)

Other government financing mechanism

- a. Maldives Green Fund in 2018: The fund is used to finance environmental protection and sustainable development initiatives such as water and sanitation, coastline protection, and waste management. Green Tax is levied from tourist visiting the country at a fixed rate per night of their stay.
- b. Fund for Renewable Energy Systems Application (FRESA) - focus on small scale private sector investment through concessional loans
- c. Renewable Energy Development Fund (RED Fund) - supplements utility scale renewable energy investments.

Green products financial institutions

- a. BML Green Loan: This credit facilitated provided by Bank of Maldives (national bank) aims to finance environment friendly projects focused on renewable energy. projects such as solar power generation or the purchase and for investments in energy efficient products. The loan is provided at a lower than the standard interest rates for the Bank's unsecured loan products.

- b. **Special Financing Rate for Energy Efficient Products:** Under this financing scheme, Hakathari labelled appliances can be purchased at a reduced interest rate from Maldives Islamic Bank. This effort is supported by the Strengthening Low Carbon Energy Island Strategies (LCEI) Project currently being implemented by the Ministry of Environment, which is funded by the Global Environment Facility (GEF) and administered by the United Nations Environment Programme (UNEP). The financing from the LCEI project is used as a guarantee to run the scheme. The funds will be revolved, and customers can continue to utilize the scheme to purchase Hakathari labelled appliances.
- c. **Crop takaful,** introduced by Allied Insurance Company of the Maldives, protects farmers from the loss of the cost of production for their plants and crops as a result of a variety of natural disasters, including heavy rain, floods with tsunamis, landslides, windstorms, and drought. Crop takaful acts as a safety net for farmers and encourages sustainable agriculture while adhering to the principles of Islamic finance. It is designed to protect farmers from financial losses by giving them financial support on cost of production in the event of crop damage or loss.

Key Challenges

- a. Limitation of public sector financing capacity including the Public Sector Investment Programme (PSIP) and availability of funds to finance climate change projects, especially grant based funding for adaptation projects.
- b. Lack of direct access to major international funding sources, such as the GCF. The main challenges to successful accreditation include capacity constraints in local agencies to meet the necessary fiduciary standards as well as gaps in policy and legislation to meet such requirements.
- c. Limited private sector engagement in climate mitigation, except for potential suppliers of renewable energy technology. Key constraints for such local suppliers include access to capital due high borrowing costs.
- d. Limited number and capacity of local experts to develop and implement projects which are acceptable to international climate finance sources, such as the GCF.
- e. Data gaps and capacity constraints at local level pose severe challenges to sufficiently quantify adaptation needs at the local level as well as understand current investment in adaptation. Hence there is limited understanding of the scale and magnitude of these needs.
- f. Lack of incentives to develop green products and assets in key sectors, while business case of climate adaptation & resilience projects is unclear.

Next steps and Way forward

I. Development of Green Taxonomy:

The development of green taxonomy spear headed by Maldives Monetary Authority is in the pipeline. This will seek to provide clarity on which economic activities are sustainable and provide guidance in the flow of investment for economic activities that contribute to building resilience against climate change. The development of green taxonomy will be carried out in a phased approach, where the taxonomy will be developed for use by the banking sector, and later branch out to include other financial sector players.

II. National Financing Inclusion Strategy

Inclusive Green Finance (IGF) is identified as one of the key pillars in the development of the National Financing Inclusion Strategy. Under IGF, key strategic action policies will be formulated to address the climate risks faced by the vulnerable population with a focus on gender.

III. Integrated National Financing Framework

The Ministry of Finance has approved the Maldives Integrated National Financing Framework (INFF), which lays out a comprehensive financing strategy for climate action which include strategies to mobilize both domestic and external resources to supplement and scale-up existing public sources of financing for climate and social sectors. The goal of the strategy is to support the financing of the Maldives Strategic Action Plan (2019–2023), Nationally Determined Contributions (NDCs), and other national and sectoral development plans to enable the country to fulfill its commitments to the environment and sustainable development on a national and international level.