



Update of Nationally Determined Contribution of Maldives

Foreword

Climate change remains an existential threat to the Maldives. We are in fact, one of the most vulnerable countries to the adverse impacts of it. This is mainly due to our unique geographical setting such as the small, low lying and dispersed nature of our islands, coupled with economic factors such as high import dependency and narrow economic base with very limited diversification. Our islands are also regularly exposed to extreme events such as monsoonal heavy rains, storms, swells and coastal erosion.

In addition to these vulnerabilities, we are also grappling with a number of external threats which further weakens our coping capacity and ability to achieve sustainable development. This is evidently demonstrated by the ongoing COVID-19 pandemic, which has further exacerbated our exposure to external shocks. Maldives is notably one of the hardest hit countries in the world by this crisis, in terms of its excruciating impacts on the GDP. Hence, without external support, the government's recovery efforts and build back better initiatives, which are aligned with long-term emission reduction goals and resilient and green recovery may not be implemented successfully.

Despite these challenges and although our contribution to GHG emissions stands at only 0.003% in the global share, we are determined to show climate leadership and continue to advocate for more effective and bold actions to address the climate crisis facing the entire world today.

In our updated NDC we have made ambitious plans to reduce 26% of our emissions by 2030. Furthermore, we will strive to achieve net zero by 2030, if we receive adequate international support and assistance. To achieve the emission reduction targets, we have set forth ambitious plans to increase our share of renewable energy in the energy mix through various initiatives.

Our NDC also places an equal importance on further enhancing our adaptation and building climate resilience future to reduce climate risks on our communities and their livelihoods. Our commitment towards achieving resilient development is demonstrated by many of the ongoing initiatives such as the Climate Smart Resilient Island Initiative, launched by President H.E Ibrahim Mohamed Solih at the U.N. Climate Action Summit in 2019. Additionally, this NDC would also facilitate actions to realize government's visions towards a '*Blue Economy*' promoting sustainable economic growth while safeguarding our oceans, plans to phase out single use plastic and also initiatives to protect and preserve our fragile environment such as our commitment to protect at least one island, one reef and one wetland from each atoll in our country.

This updated NDC is a result of a number of stakeholder consultations and a review of the ongoing development initiatives, projects and programs in various sectors. Efforts were also made to ensure that this NDC is in line with all relevant government policies, plans and visions. We are also committed to further scale up our efforts to reach a more sustainable, resilient and low emission pathway for our citizens.

I am pleased to communicate to the international community this fulfillment from the Government and the People of Maldives.

Dr. Hussain Rasheed Hassan
Minister of Environment

The Maldives' update of the Nationally Determined Contribution

The decision 1/CP.21 articulates, “Also requests those Parties whose intended nationally determined contribution pursuant to decision 1/CP.20 contains a time frame up to 2030 to communicate or update by 2020 these contributions and to do so every five years thereafter pursuant to Article 4, paragraph 9, of the Agreement”.

The Maldives submitted its first Nationally Determined Contribution in 2015. Since then, the Maldives has worked towards achieving the goals specified in the NDC. As per decision 1/CP.21, the Maldives submits its updated NDC. The Maldives made efforts as much as possible to enhance the NDC to follow the ICTU guidance which was adopted as a part of the Katowice Climate Package in December 2018 in the spirit of streamlining and harmonizing the NDCs synthesis process.

1. Quantified information on the reference point (including, as appropriate, a base year)	
(a) Reference year(s), base year(s), reference period(s) or other starting point(s)	Target is given relative to the projected emissions to 2030 under a BAU scenario with 2011 as the base year of emissions.
(b) Quantifiable information on the reference indicators, their values in the reference year(s), base year(s), reference period(s) or other starting point(s), and, as applicable, in the target year	Emissions in 2030 under a BAU is 3,284.92 Gg CO ₂ e.

(c) For strategies, plans and actions referred to in Article 4, paragraph 6, of the Paris Agreement, or policies and measures as components of nationally determined contributions where paragraph 1(b) above is not applicable, Parties to provide other relevant information	Various actions need to be undertaken to achieve the NDC target. A brief description of the activities are provided below. • Increase of electricity production by renewable energy (RE) with storage and grid stabilization. Efforts will be made to increase the installed the RE share to 15% of the energy mix, which includes the public and private sector. • Increase supply and demand side efficiency. Increase of efficiency of generators and upgrading the grids to minimize grid loss would be essential. Significant upgrading of the existing power production infrastructure needs to be done via routine scheduled maintenance, synchronization and optimization of power production and reducing grid loss to at least 5% is required. In addition, demand side management would include implementation of the standard labelling program and improvement of building standards for energy efficiency. • Waste to energy. The planned installation of 8 MW in Thilafushi and 1.5 MW in Addu City will be completed. These systems will be optimized for grid connection and electricity production. • Establishment of vehicle/vessels emissions standard and establishment of efficient transport management system and promotion of hybrid-vehicles. • Use of Liquefied Natural Gas (LNG) for electricity generation within greater Malé region. The diesel used for power production could be replaced with LNG for the greater Malé region with the proposed LNG plant in Thilafushi and the interconnectivity bridge.
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(d) Target relative to the reference indicator, expressed numerically, for example in percentage or amount of reduction	26% reduction of emissions in 2030 (under a BAU) in a conditional manner, in the context of sustainable development, supported and enabled by availability of financial resources, technology transfer and capacity building. However, the Government of Maldives believes that it has a responsibility to take a transformational economic and environmental path to development and aims to reach net-zero by 2030 provided on condition that it gets the extensive support and assistance from the international community. Maldivian government will develop a plan with consultation of development partners, donors and other stakeholders, mapping out the net-zero pathway.
(e) Information on sources of data used in quantifying the reference point(s)	• The base year information was collected from Maldives Energy Supply and Demand Survey 2010-2012. • The emission projections are based on the modelling approach of the Maldives Energy Supply and Demand Survey 2010-2012. • The economic projections are based on the IMF World Economic Outlook Update (2017) • Population projections were obtained from the Maldives Population Projections 2014-2054 available from the Maldives National Bureau of Statistics. • Detailed description of the methodology is included in the Annex of First BUR of Maldives
(f) Information on the circumstances under which the Party may update the values of the reference indicators	Changes of circumstance where underlying assumptions (e.g. fuel prices, technological feasibility etc.) may have to be reflected to update the indicators.
2. Time frames and/or periods for implementation	

(a) Time frame and/or period for implementation, including start and end date, consistent with any further relevant decision adopted by the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement (CMA)	Already under implementation and will continue to do so till the end of 2030.
(b) Whether it is a single-year or multi-year target, as applicable	Single – year target
3. Scope and coverage	
(a) General description of the target	The target for 2030 is to reduce emissions under a BAU where the emissions reduction is mostly from the energy and waste sector
(b) Sectors, gases, categories and pools covered by the nationally determined contribution, including, as applicable, consistent with Intergovernmental Panel on Climate Change (IPCC) guidelines	As per the IPCC guidelines: key sectors covered: • Energy • Waste Gases covered: • Carbon dioxide (CO₂) • Methane (CH₄) • Nitrous oxide (N₂O)
(c) How the Party has taken into consideration paragraph 31(c) and (d) of decision 1/CP.21	The Maldives is committed to expanding the inclusion of all categories of emissions and removals as much as possible. Inclusion of sources and sinks were considered based on the latest inventory (inventory of 2015) of the BUR and was decided that still more data gaps needs to be filled and this will be addressed overtime in subsequent inventory updates.

(d) Mitigation co-benefits resulting from Parties' adaptation actions and/or economic diversification plans, including description of specific projects, measures and initiatives of Parties' adaptation actions and/or economic diversification plans	Maldives will account for any mitigation co-benefits from adaptation and/or economic diversification as mitigation actions in accordance with the assumption and methodological approaches in Section 5.
4. Planning Process	
(a) Information on the planning processes that the Party undertook to prepare its nationally determined contribution and, if available, on the Party's implementation plans, including, as appropriate	
(i) Domestic institutional arrangements, public participation and engagement with local communities and indigenous peoples, in a gender-responsive manner	As the Ministry mandated with the climate change portfolio, the Ministry of Environment has updated the NDC in consultation with all relevant stakeholders including those in the public and private sector. In addition, the NDC was shared with the general public for their feedback. During the updating process, various development plans and ongoing activities within the sectors were considered.
(ii) Contextual matters, including, inter alia, as appropriate:	
a. National circumstances, such as geography, climate, economy, sustainable development and poverty eradication	Please refer to the Maldives latest national communication (Second National Communication) and the First BUR.

b. Best practices and experience related to the preparation of the nationally determined contribution	• Taking into consideration the financial and technical capabilities of the country • Conducting socio-economic analysis of the mitigation actions. • Engaging stakeholders to confirm their roles and responsibilities to achieve the target. • Briefing policy makers on the technical and financial implications in achieving the NDC target • Use of existing national reports in various sectors
c. Other contextual aspirations and priorities acknowledged when joining the Paris Agreement	Not Applicable
(b) Specific information applicable to Parties, including regional economic integration organizations and their member States, that have reached an agreement to act jointly under Article 4, paragraph 2, of the Paris Agreement, including the Parties that agreed to act jointly and the terms of the agreement, in accordance with Article 4, paragraphs 16–18, of the Paris Agreement	Not Applicable
(c) How the Party's preparation of its nationally determined contribution has been informed by the outcomes of the global stocktake, in accordance with Article 4, paragraph 9, of the Paris Agreement	Not Applicable for this round of NDC

(d) Each Party with a nationally determined contribution under Article 4 of the Paris Agreement that consists of adaptation action and/or economic diversification plans resulting in mitigation co-benefits consistent with Article 4, paragraph 7, of the Paris Agreement to submit information on:	
(i) How the economic and social consequences of response measures have been considered in developing the nationally determined contribution	Cost and benefits were assessed for all the interventions considered while taking into consideration the financial and technical capacity of the country.
(ii) Specific projects, measures and activities to be implemented to contribute to mitigation co-benefits, including information on adaptation plans that also yield mitigation co-benefits, which may cover, but are not limited to, key sectors, such as energy, resources, water resources, coastal resources, human settlements and urban planning, agriculture and forestry; and economic diversification actions, which may cover, but are not limited to, sectors such as manufacturing and industry, energy and mining, transport and communication, construction, tourism, real estate, agriculture and fisheries	Enhancement of the existing economic diversification plans.
5. Assumptions and methodological approaches, including those for estimating and accounting for anthropogenic greenhouse gas emissions and, as appropriate, removals	

(a) Assumptions and methodological approaches used for accounting for anthropogenic greenhouse gas emissions and removals corresponding to the Party's nationally determined contribution, consistent with decision 1/CP.21, paragraph 31, and accounting guidance adopted by the CMA;	The Maldives will account for its anthropogenic GHG emissions and removals using the 2006 Intergovernmental Panel on Climate Change (IPCC) Guidelines for National Greenhouse Gas Inventories, IPCC Good Practice Guidance and Uncertainty Management in National Greenhouse Gas Inventories. The models applied projects amount of energy used for every national sector based on population and economic growth. Default emission values from IPCC 2006 Guidelines are used to derive the emission.
(b) Assumptions and methodological approaches used for accounting for the implementation of policies and measures or strategies in the nationally determined contribution;	See 5(a) above. The Maldives will also apply specific assumptions and methodologies, where relevant, when accounting for progress of various policies and measures in its future reporting.
(c) If applicable, information on how the Party will take into account existing methods and guidance under the Convention to account for anthropogenic emissions and removals, in accordance with Article 4, paragraph 14, of the Paris Agreement, as appropriate	See 5(a) above
(d) IPCC methodologies and metrics used for estimating anthropogenic greenhouse gas emissions and removals;	The Maldives emissions for CO₂, CH₄ and N₂O will be derived using the 2006 IPCC Guidelines, via the Reference and Sectoral approach. The Tier 1 methodology will be used for emission estimates. The aggregation of GHG emissions will be estimated, and will be reported, using the 100-year time-horizon global warming potential (GWP) values from the IPCC Fifth Assessment Report.

(e) Sector-, category- or activity-specific assumptions, methodologies and approaches consistent with IPCC guidance, as appropriate, including, as applicable	
(i) Approach to addressing emissions and subsequent removals from natural disturbances on managed lands;	Not applicable
(ii) Approach used to account for emissions and removals from harvested wood products;	Not applicable
(iii) Approach used to address the effects of age-class structure in forests;	Not applicable
(f) Other assumptions and methodological approaches used for understanding the nationally determined contribution and, if applicable, estimating corresponding emissions and removals, including	
(i) How the reference indicators, baseline(s) and/or reference level(s), including, where applicable, sector-, category- or activity-specific reference levels, are constructed, including, for example, key parameters, assumptions, definitions, methodologies, data sources and models used;	For the purpose of projections: • Energy use per capita and waste generated per capita is used to assess domestic energy and waste generation • For the tourism sector energy use per tourist bednight and waste generated per tourist bed night is assessed. • For other industrial and commercial activities, energy use is normalized to GDP dollar.

(ii) For Parties with nationally determined contributions that contain non-greenhouse-gas components, information on assumptions and methodological approaches used in relation to those components, as applicable	Not applicable
(iii) For climate forcers included in nationally determined contributions not covered by IPCC guidelines, information on how the climate forcers are estimated;	Not applicable
(iv) Further technical information, as necessary;	Not applicable
(g) The intention to use voluntary cooperation under Article 6 of the Paris	The Maldives intends to participate in the mechanisms under the Article 6 of the Paris Agreement. However, due to lack of agreed rules at the time of this submission, the level of participation for achievement of the NDC target is not determined.
6. How the Party considers that its nationally determined contribution is fair and ambitious in the light of its national circumstances	
(a) How the Party considers that its nationally determined contribution is fair and ambitious in the light of its national circumstances; (b) Fairness considerations, including reflecting on equity;	As the Maldives is a highly indebted Small Island Developing State at the frontline of the climate emergency, all mitigation using domestic resources should be considered ambitious. Thus, it is fair for a country like the Maldives, to put forward a conditional target while aspiring to significantly increase that target on the basis of available finance, technology and capacity. Though the emissions produced by the Maldives is negligible, given its extreme vulnerability to climate impacts, emission reduction can contribute to

	increasing resilience and achieving sustainable development. However, achieving our targets are constrained by the limited land area, geographic isolation of islands and geographic dispersion of population and small economies of scale contribute to these challenges. In addition, limited capacity and challenges associated with transformation of the already established power generation systems remain as barriers to increase the share of renewable energy in the energy mix. Apart from solar energy, ocean currents and waves surrounding the islands can be considered as potential renewable energy sources for the Maldives and other SIDS. However, the technologies to harness them are still at pilot stages globally and commercially unavailable. This has resulted in the Maldives being heavily dependent on imported fossil fuels despite the advancement of government policies that promote and implement renewable energy technology adoption. As the Maldives is already facing the consequences of extreme and slow onset events, there is a need for urgent and immediate adaptation actions. The Maldives is undertaking a number of adaptation actions through the use of domestic and international resources most of which addresses the immediate needs of the country. The COVID19 pandemic has further exacerbated these vulnerabilities making the Maldives one of the hardest hit countries in the world in terms of its impact on GDP. Considering these constraints and the increasing vulnerabilities to the adverse impacts of climate change and the minor share of global GHG emissions, while allowing the country to pursue sustainable development without overburdening the population, the Maldives' NDC is highly equitable and ambitious
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(c) How the Party has addressed Article 4, paragraph 3, of the Paris Agreement;	The target given is higher than the target submitted in 2015 with more information regarding the actions to be taken.
(d) How the Party has addressed Article 4, paragraph 4, of the Paris Agreement;	Not applicable
(e) How the Party has addressed Article 4, paragraph 6, of the Paris Agreement	The target takes into account the national circumstances.
7. How the nationally determined contribution contributes towards achieving the objective of the Convention as set out in its Article 2:	
(a) How the nationally determined contribution contributes towards achieving the objective of the Convention as set out in its Article 2;	The target set and the activities identified are meant to contribute to the overall objective of the convention to limit dangerous anthropogenic interference with the climate system. The NDC does take into consideration that any mitigation action taken does not adversely impact ecosystems ability to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner.
(b) How the nationally determined contribution contributes towards Article 2, paragraph 1(a), and Article 4, paragraph 1, of the Paris Agreement	The NDC target given will contribute to achieving the target of limiting the warming to below 1.5°C, while keeping in consideration that it contributes to sustainable development while eradicating poverty by reducing dependency of imported energy and switching to more cost-effective, reliable and sustainable energy sources.

The Maldives enhancement adaptation efforts

The Maldives, as one of the most vulnerable countries to climate change, considers strengthening adaptation actions and building climate resilience as a high national priority. Similar to mitigation efforts, increasing the adaptation resilience is also considered economy wide and targets all the sectors.

Enhancing Agriculture and Food Security

Agriculture and food production is very limited in the Maldives due to the small size of the islands, land scarcity, poor soil conditions and limited water resources. However, the sector has strived to sustain its contribution to the national economy and food security. The sector's contribution remain a significant source of income for many women especially smallholder farmers and island communities.

The Maldives has a highly import oriented economy with respect to its staple food requirements. Moreover, the extensively scattered and geographically dispersed nature of islands results in tremendous barriers and challenges, adding risks towards maintaining adequate storage and distribution facilities and systems especially during severe and extreme events and unexpected market irregularities.

- Strengthen existing climate risk insurance mechanisms for building resilience against the loss of assets, livelihoods due to extreme events and enhancing relief efforts in the post disaster period taking into account national food and nutrition security.
- Scale-up investments in building public food reserves and stocks and expanding regional distribution mechanisms across the country as an adaptive measure to increase accessibility and availability to reduce risks of food shortages during extreme events and market irregularities.
- Promote research and development focusing on climate smart technologies and practices to address challenges facing the sector due to climate variabilities, seasonal changes and extreme events.
- Enhance capacity to implement climate smart and Integrated Pest Management (IPM) strategies and practices towards reducing pest damages and pest induced crop losses to increase resilience on crop yields and food security.
- Facilitate and enhance access to finance via available national funds and other mechanisms including access to micro-credit, grants etc., to increase farmer's capacity to enhance food security and to increase investments on production systems.

Infrastructure Resilience

Given the small and low lying geographic nature of the islands, our critical infrastructure is in close proximity to the coast. Infrastructure is constantly exposed to coastal hazards such as sea swells, storm surges and associated coastal flooding. This infrastructure needs protection from the potential adverse impacts of climate change. As part of increasing infrastructure resiliency, the Maldives will consider to undertake the following actions.

- Enhancing the resilience and climate proofing of critical infrastructure such as airports, ports, powerhouses and other utilities etc.
- Enhancing the National Building Code to incorporate climate resilience including coastal infrastructure.
- Increase resiliency through better spatial planning and increased connectivity between the islands.
- Strengthen the legislative framework by establishment of a National Planning Act and Physical Planning Act. The legislation will facilitate integration of climate change into development planning while considering the economies of scale for public services, land use planning and population consolidation.
- Strengthen efforts to conserve and restore mangrove ecosystems considering its numerous services and benefits to people and nature including livelihood of communities and its role as natural buffers or barriers for flood mitigation.

Public Health

Climate Change has both direct and indirect health impacts. Warmer temperatures and wetter monsoon seasons could increase the prevalence of vector borne diseases. Extreme weather such as storm surges and flooding cause significant damage to health care facilities and the delivery of health services during emergencies. These impacts are not limited to physical diseases, but also affects mental and social well-being. This often has a disproportionate burden on women, elderly persons, persons with disabilities and children.

Food and water borne diseases are not common in the Maldives. However, heavy rainfall and flooding promotes the transmission of such pathogens when there are no proper mechanisms to ensure adequate food safety and disposal measures. Poor sanitation and groundwater contamination also increase the chance of spreading water borne diseases.

- Facilitate integration of climate change into the national health systems to ensure sustainable and climate resilient adaptation measures.

- Enhance the institutional and human capacity to implement the existing vector surveillance programs covering all islands to address the emergence and re-emergence of such diseases and in implementing adequate food safety measures.
- Strengthen the existing legal frameworks to address national vector control and implementation of food safety policies and standards.
- Enhance the resilience of health infrastructure through increased climate proofing and incorporating green and energy efficiency measures.
- Enhance public health advocacy and awareness activities to reduce vector borne and other non-communicable diseases including those driven by heat stress and poor air quality.
- Promote research to understand the nexus between climate change and health such as its impacts on vector borne diseases, mental health and air quality.

Enhancing Water Security

Ground and rainwater are the main sources of fresh water in Maldives. In most of the islands, groundwater is not suitable for potable use due to saltwater intrusion and poor water quality. Future climate projections show that Maldives will experience issues with adequate availability of rain water which increases risk to accessibility and quality of water sources.

- Implementation of cost-effective Integrated Water Resource Management (IWRM) systems to cater for the water needs of the entire population to reduce the risk of water shortages during dry seasons.
- Enhance decentralized water security and safety plans to be implemented in all islands, considering the nuanced differences of the available water resources and minimize the detrimental impacts on the water resources.
- Integrate stormwater management into infrastructure development projects.
- Improve the overall understanding of impacts from climate change on the natural water resources based on the latest science and implement policies, standards, regulations to pre-emptively protect the natural water resources from future impacts.
- Strengthen policies, programmes and campaigns to increase the efficiency of water use to reduce human pressure on the existing water resources.

Coastal Protection

The geographical nature of our islands results in communities having to live in very close proximity to the shoreline. Communities are highly exposed to risks associated with coastal hazards such as sea swells, sea level rise and these impacts have increased many folds over the past few decades. Hence, investments to coastal resilience is a critical need and priority for the Maldives. Given the characteristics of the country, coastal management is essential to increase resilience in other vulnerable sectors.

- Promote use of evidence-based decision making on coastal adaptation planning and management of coastal zones.
- Facilitate mobilization of financing to reduce exposure of communities to coastal hazards.
- Mainstream climate change risks into coastal development policies.
- Continue to facilitate investments in coastal protection of inhabited islands, industrial islands and resorts.

Safeguarding Coral Reef Biodiversity

The Maldives is very rich in its marine flora and fauna. The coral reefs make up a significant portion of the Maldives biodiversity. The formation and protection of islands, livelihoods of the people and economy of the country depends on our marine environment in particular the coral reefs, with their immense contribution to the tourism and fisheries industries. The reefs support rich biodiversity providing food and livelihoods to island communities.

This vital ecosystem is highly sensitive to changing sea surface temperature and other climatic factors. Evidence from Maldivian reefs supports that warming of the ocean surface leads to significant coral bleaching and mortality has been observed in the Maldives due to El-Nino phenomenon during the past two decades. In some instances, coral reefs surrounding the islands are also stressed due to land-based sources of pollution.

- Facilitate research to address knowledge gaps and climate change impacts on coral reefs and marine ecosystems in order to promote sustainable and resilience-based management of coral reefs and marine ecosystems.
- Strengthen existing coral reef monitoring program by engaging partners and stakeholders and developing tools (such as remote sensing, projections) for predicting, measuring and monitoring effects of climate variabilities and changes on reefs, marine ecosystems and vulnerable species.
- Strengthen national conservation programs considering different categories of protection, local and community management, ecosystem-based approach to contribute to the conservation of marine and coastal biodiversity and increase their resilience to climate change impacts while taking the livelihoods of the resource users into account.

- Enhance resilience of coral reefs and ecosystems by developing policy tools, incorporating into development plans, promoting best practices, increasing advocacy and through management actions.
- Implement measures to reduce sources of pollution on coral reefs and ecosystems especially marine life through appropriate policies, development of appropriate treatment facilities, management and safe disposal of solid waste taking into account the timely phasing-out of single use plastics.

Tourism

Tourism is the largest contributor to GDP. The Maldivian tourism industry is highly dependent on its limited environmental resources. A slight modification in its resources will have a cascading impact on the national GDP.

- Mainstream climate change risks into tourism sector policies to enhance resiliency and sustainability of the sector.
- Facilitate access to finance to increase the resilience and sustainable environmental management of the sector.
- Mainstream and promote clean energy and energy efficiency technologies to reduce the overall emissions.
- Establish an insurance mechanism to reduce the impacts on the tourism sector through risk sharing and risk management.

Fisheries

Fisheries remains the primary industry for many island communities occupying men and women alike. Fish products are the country's main exports and is one of the key sources of foreign exchange. Fisheries is also a key primary productivity sector and contributes to approximately 20% of the domestic employment.

Climate change is expected to have a profound impact on oceans and marine life and the Maldives is no exception. The changing distribution of fish stocks and their food due to climate variability and accelerating effects of climate change is expected to have a significant impact on Maldives fisheries, fisheries dependent livelihood activities and food and nutrition security. Further, the increasing trend of frequency and magnitude of extreme events and anomalies could be devastating to the fishing communities nutritionally and economically.

- Facilitate fisheries research and development initiatives taking into consideration resilience building of the sector towards managing the changing of fish stocks and its migration patterns, adapting to efficient technologies and investing in national capacity needs.

- Enhance diversification of the fisheries sector including promotion of multi-functionality to respond to the emerging challenges and uncertainties due to climate variabilities and extreme events while protecting the health and sustainability of the marine resources and ecosystems.
- Promote sustainable fisheries by increasing efficiency of fishing vessels, promoting technologies that have potential for reducing GHGs and by developing and upgrading land based fisheries infrastructures and facilities for a low carbon foot- print.
- Facilitate access to finance to empower the industry towards meeting the vulnerability challenges and increase its contribution to sustainable blue growth considering vulnerable small-scale fishers and fishing communities and their productive role in maintaining food and nutrition security, livelihood and sustaining a successful blue economy.
- Strengthen insurance schemes to enhance resilience of small-scale fishers and fishing industry to cover against losses due to extreme events and anomalies, ensuring a minimum monthly income for lost fishing days especially for small-scale fishers.

Early Warning and Systematic Observation

Information and data availability on climatology, hydrology and geophysics is scarce in the Maldives. Wide geographic spread of the islands complemented with capacity constraints and inadequate resources have challenged the expansion of the observation networks. Improvement of data collection, management and forecast remains critical areas for early warning dissemination.

- Promote research to understand past and future climate trends and their associated impacts.
- Continue strengthening and expansion of the meteorological network and early warning systems to cover the entire archipelago.
- Improve the climate and weather forecasting tools for decision making.
- Strengthen the early warning systems and risk management tools.

Disaster risk reduction and management

The Maldives is highly vulnerable to natural disasters and extreme climate events due to its fragile ecological profile and low elevation. Communities have experienced extensive damages in recent times, due to strong winds and frequent flooding. Future climate projections indicate that extreme events are likely to be more severe and frequent. Respective authorities and communities need to be better prepared to address and manage natural disasters.

- Strengthen the existing databases on disaster risk management.
- Strengthen collaboration with the island communities to understand and obtain information on local impacts.
- Enhance mechanisms for collection of information on losses and damages.
- Facilitate the promotion and participation of the public and private sector in the disaster insurance scheme.

Cross-cutting Issues

Finance

The Government of Maldives will actively seek ways to increase both public and private resources for climate action. To this end, the Maldives will continue to forge partnerships with individuals, private sector, civil society and local governments to mobilize climate finance. The government has been increasing its budgetary allocations for climate action annually in recent years. These include allocations under the Public Sector Investment Programme, recurring budgetary contributions, local contributions for donor supported projects, and loan repayments. In addition, the government continues to spearhead efforts to mobilize additional climate finance through innovative financing mechanisms, direct investments in projects, and provision of loans and guarantees to attract private finance to achieve its climate goals. The Maldives will continue to enhance its enabling environments to attract climate finance.

- Review and update the National Strategic Framework to Mobilize International Climate Finance every five years, outlining priority areas for donor support.
- Improve government's capacity to tap into international climate finance mechanisms.
- Establish and operationalize a system for tracking public and private climate finance flows.
- Scale up annual budgetary allocations for climate adaptation and mitigation through the Public Sector Investment programme.
- Establish a National Climate Change Trust Fund to attract investments and to implement a range of alternative financing mechanisms for increasing resilience and low emission development programmes.
- Continue allocations from the Maldives Green Fund to finance investments on climate action.
- Introduce incentives for private sector including SMEs to invest in green development.

Climate governance and capacity building

Implementation of NDC and other climate related policies requires the necessary capacity and good governance mechanism. Addressing climate change adaptation and mitigation needs transformational changes. These changes need proper knowledge transfer, human resource capacity building, and increasing public awareness in addition to the financial and technological enhancements.

- Mainstream climate considerations into national development planning processes.
- With support from the international community, develop the National Adaptation Plan (NAP) with short, medium and long-term adaptation programs to address adaptation needs nationwide.
- Strengthen climate governance through enactment of the climate change legislation.
- Continue the national capacity building programs with assistance from the international community.
- Develop and promote appropriate technologies to address climate change impacts with support from the international community.
- Implement appropriate policies and strategies to address the impacts of climate change on vulnerable groups.

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