6TH National Report for the Convention on Biological Diversity

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Sixth National Report

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Section I. Information on the targets being pursued at the national level

Country

Maldives

National Targets

1. By 2020 governance on biodiversity conservation is strengthened at local and national level

Rationale for the National Target

To achieve the biodiversity targets it is paramount to have national governance, structured and functional with clear mandates, in a manner that will favour the implementation of the other targets EN

Level of application

Jurisdiction

National / Federal

Relevance of National Targets to Aichi Targets

Aichi Target components

Biodiversity values integrated into national and local planning processes

Sub-Aichi Targets or Target components

Biodiversity values integrated into national and local development and poverty reduction strategies

NBSAPs adopted as effective policy instrument

2. By 2020 enforcement of laws and regulations on biodiversity are strengthened

Rationale for the National Target

It is believed that pertinent issues relating to coral reef biodiversity conservation stems from culturally and traditionally driven practices that need to be regulated using modern law enforcement tools. It is envisaged that wildlife law enforcement officers institutionalised with responsibilities for overseeing fisheries and protected areas and species would combat illegal activities.

EN

Level of application

Jurisdiction

National / Federal

Relevance of National Targets to Aichi Targets

Aichi Target components

1. Awareness of biodiversity values
People are aware of the steps they can take to conserve and sustainably use biodiversity

Sub-Aichi Targets or Target components

6. Sustainable fisheries
10. Vulnerable ecosystems
11. Protected areas
12. Preventing extinctions
17. NBSAPs

3. By 2025 mainstream biodiversity into island, atoll, sectoral and national plans

Rationale for the National Target

The Maldives is governed by a system of atolls and islands encompassing coral reefs and brought together by a law on decentralisation. It is imperative that island development be harmonised through island development plans such that natural resources both reef based and oceanic are managed sustainably. The target is to ensure that 187 island development plans have biodiversity values and conservation integrated into the plans. At the same time the two main biodiversity related economic sectors (fishing and tourism) need to be developed through strategic plans that incorporate sustainable resources and biodiversity conservation.	EN

Level of application

Jurisdiction

Sub-national

Details on the level of application

Atolls and islands / economic sectors / National SAP	EN

Relevance of National Targets to Aichi Targets

Aichi Target components

People are aware of the values of biodiversity
People are aware of the steps they can take to conserve and sustainably use biodiversity
Biodiversity values integrated into national and local development and poverty reduction strategies
Biodiversity values integrated into national and local planning processes
Biodiversity values incorporated into reporting systems
Governments, business and stakeholders at all levels have taken steps to achieve, or have implemented, plans for sustainable production and consumption
Have kept the impacts of use of natural resources well within safe ecological limits
Areas under agriculture are managed sustainably, ensuring conservation of biodiversity
Areas under aquaculture are managed sustainably, ensuring conservation of biodiversity
Areas under forestry are managed sustainably, ensuring conservation of biodiversity
Pollution from excess nutrients has been brought to levels that are not detrimental to ecosystem function and biodiversity
Multiple anthropogenic pressures on coral reefs are minimized, so as to maintain their integrity and functioning
At least 17 per cent of terrestrial and inland water areas are protected.
At least 10 per cent of coastal and marine areas are protected
Protected areas are effectively and equitably managed
The genetic diversity of farmed and domesticated animals is maintained
Ecosystems that provide essential services, including services related to water, and contribute to health, livelihoods and well-being, are restored and safeguarded
Taking into account the needs of women, indigenous and local communities, and the poor and vulnerable
Traditional knowledge, innovations and practices of indigenous and local communities are respected

4. By 2025 government, businesses and stakeholders at all levels have taken steps to achieve or have implemented plans for sustainable production and consumption and have kept the impacts of use of natural resources well within safe ecological limits

Rationale for the National Target

The Maldives is totally dependent on fisheries and coral reef resources for income, food security and poverty alleviation. Over 40% of the country's GDP accounts for marine and coral reef resources. Over-exploitation of fisheries and coral reef resources is a real threat to biodiversity. This national target attempts to bring sustainability to resource use. It is necessary to keep coral reef use and commercially exploited fisheries resources within sustainable limits. Developments on coral reefs need to be streamlined though legally sound environmental management systems. Marine pollution especially plastic pollution, dredging and reclamation are impacts that undermine the sustainability of coral reef biodiversity. Development aspirations on biodiversity rich coral reefs need to be guided by biologically and ecologically sound management systems that ensure safe ecological use and adhere to the carrying capacity of the reef in question.	EN

Level of application

Jurisdiction

National / Federal

Relevance of National Targets to Aichi Targets

Aichi Target components

Governments, business and stakeholders at all levels have taken steps to achieve, or have implemented, plans for sustainable production and consumption
Have kept the impacts of use of natural resources well within safe ecological limits
All fish and invertebrate stocks and aquatic plants are managed and harvested sustainably, legally and applying ecosystem based approaches

The impacts of fisheries on stocks, species and ecosystems are within safe ecological limits, i.e. overfishing avoided
Areas under agriculture are managed sustainably, ensuring conservation of biodiversity
Areas under aquaculture are managed sustainably, ensuring conservation of biodiversity
Areas under forestry are managed sustainably, ensuring conservation of biodiversity
Pollutants (of all types) has been brought to levels that are not detrimental to ecosystem function and biodiversity
Multiple anthropogenic pressures on coral reefs are minimized, so as to maintain their integrity and functioning
Ecosystems that provide essential services, including services related to water, and contribute to health, livelihoods and well-being, are restored and safeguarded

5. By 2025 people are aware of the value of biodiversity and the steps they can take to conserve and use it sustainably

Rationale for the National Target

Education and awareness is key to valuing biodiversity at all levels especially at schools and youth population. Lack of awareness at atolls and island community levels is considered a major hurdle for effectively managing biodiversity. This target is aimed at creating and sustaining awareness on coral reefs and their management throughout the population including island communities, businesses, youth, children and organisations. The objective that activities under this target the entire population will be reached by 2025.	EN

Level of application

Jurisdiction

National / Federal

Relevance of National Targets to Aichi Targets

Aichi Target components

People are aware of the values of biodiversity
People are aware of the steps they can take to conserve and sustainably use biodiversity
Biodiversity values integrated into national and local development and poverty reduction strategies
Biodiversity values integrated into national and local planning processes
Biodiversity values incorporated into national accounting, as appropriate
Biodiversity values incorporated into reporting systems
Governments, business and stakeholders at all levels have taken steps to achieve, or have implemented, plans for sustainable production and consumption
Have kept the impacts of use of natural resources well within safe ecological limits
The rate of loss of forests is at least halved and where feasible brought close to zero
All fish and invertebrate stocks and aquatic plants are managed and harvested sustainably, legally and applying ecosystem based approaches
Areas under agriculture are managed sustainably, ensuring conservation of biodiversity
Multiple anthropogenic pressures on coral reefs are minimized, so as to maintain their integrity and functioning
At least 17 per cent of terrestrial and inland water areas are protected.
Knowledge, the science base and technologies relating to biodiversity, its values, functioning, status and trends, and the consequences of its loss, are improved

Relevant documents and information

This target is aimed at creating awareness among various sectors including island communities, businesses, youth, children	EN

and organisations. It is expected that by end of 2025 people at large will at least have some knowledge on the value of biodiversity and steps they can take to conserve it. Targeted activities will be conducted to different groups using the best resources and mediums.

These mediums include, but are not limited to, social media, mobile networks, Internet sources, television, publications, curriculum, entertainment and recreation. Given the small size of the population at both the national and island level, it is estimated that the entire population will be reached by the end of 2025.

"Farukoe" programme is one example of a major programmes organized by the Ministry of Education on creating awareness on reefs to all students of the country

Other relevant website address or attached documents

FAROKE program coordinated by the Ministry of Education

6. By 2025 parliamentarians, judiciary, elected officials and decision makers across government are aware of the significance of including biodiversity conservation in all developmental, social and economic policies, strategies, plans, laws and regulations

Rationale for the National Target

The political backing and comprehension of biodiversity conservation is a necessary prerequisite for effective planning and financing of biodiversity conservation. Similarly the integration of biodiversity into sectoral policies strategies, laws and regulations and ministerial and departmental mandates can only be achieved through awareness at top political and managerial staff. Communicating science of biodiversity and ecosystem services to policy makers is the primary objective of this target	EN

Level of application

Jurisdiction

National / Federal

Relevance of National Targets to Aichi Targets

Aichi Target components

Biodiversity values integrated into national and local development and poverty reduction strategies
Biodiversity values integrated into national and local planning processes
Biodiversity values incorporated into national accounting, as appropriate
Governments, business and stakeholders at all levels have taken steps to achieve, or have implemented, plans for sustainable production and consumption
NBSAPs are being implemented
Mobilization of financial resources implementing the Strategic Plan for Biodiversity from all sources have increased substantially from 2010 levels

7. By 2020 law enforcement officials are aware of the national laws, regulations and international obligations of Maldives and enforce them to conserve biodiversity

Rationale for the National Target

The Maldives has had biodiversity conservation in terms of habitat and species protection integrated into key natural resources management laws from the seventies. The problem with these laws were the lack of understanding and enforcement. For example Coral mining has been banned by law for more than 20 years yet coral mining and sale of it to tourists goes on at a significant scale. It is concluded that key law enforcement officers need to be trained and made aware of the background and substance	EN

of environmental and biodiversity protection laws. Fisheries, agriculture, aquaculture and tourism laws, regulations, policies and strategies does address biodiversity conservation. However they sometimes remain ineffective due to weak enforcement. Creating awareness on biodiversity related laws and regulations, policies and strategies is necessary to understand the value of biodiversity conservation.

Level of application

Jurisdiction

National / Federal

Relevance of National Targets to Aichi Targets

Aichi Target components

1. Awareness of biodiversity values
2. Integration of biodiversity values
4. Use of natural resources
5. Loss of habitats
6. Sustainable fisheries
7. Areas under sustainable management
11. Protected areas

8. By 2025 the capacity of people including community, CBOs, NGOs, media and different

government bodies to manage knowledge and to participate in biodiversity planning is increased

Rationale for the National Target

Stakeholder involvement and engagement in oceanic and coral reef biodiversity planning and management is limited in the Maldives. Many NGOs operate under the umbrella of environmental protection agents but little opportunity is available for constructive engagements. Part of the reason is the lack of capacity and resources within the organisations.

This target aims at building capacity, particularly at communities, different levels of organisations, government and media to manage knowledge on biodiversity and to effectively and actively participate in biodiversity conservation.

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Level of application

Jurisdiction

National / Federal

Relevance of National Targets to Aichi Targets

Aichi Target components

1. Awareness of biodiversity values
2. Integration of biodiversity values
5. Loss of habitats
8. Pollution
11. Protected areas

14. Essential ecosystem services

9. By 2018 international trade of endangered species of wild fauna and flora are regulated

Rationale for the National Target

The catching and sometimes trade in birds has been a traditional and historical activity in the Maldives. Birds caught includes nationally endemic birds and sometimes migratory birds. Although much protection has been afforded to bird life, the trade of local and imported species is common.

One of the concerns at national level is the illegal trade of different species including those that are endangered. Since becoming a member of CITES in March 2013, Maldives has taken steps to regulate trade of endangered species. However, the regulatory framework and the necessary capacity are still lacking. It was expected that by end of 2018, Maldives would have enforced most of the regulatory frameworks and other obligations under the convention that ensures sustainable use of biodiversity. However, CITES law is still to be adopted. Enforcement of this law will also ensure that only authorised wildlife is traded and such trade is traceable.

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Level of application

Jurisdiction

National / Federal

Relevance of National Targets to Aichi Targets

Aichi Target components

12. Preventing extinctions

Sub-Aichi Targets or Target components

1. Awareness of biodiversity values

10. By 2018, Cartagena Protocol on Biosafety is implemented in Maldives

Rationale for the National Target

Maldives is a member to the Protocol since 2003. However, there is no regulation on biosafety. In 2006 a draft regulation was prepared under the National Biosafety Framework, which needs to be made the official regulatory framework for biosafety. To effectively implement the Protocol it is also necessary to train enforcement officers and establish a coordination mechanism between different organisations.

EN

Level of application

Jurisdiction

National / Federal

Relevance of National Targets to Aichi Targets

Aichi Target components

9. Invasive Alien Species
13. Agricultural biodiversity

11. By 2022 fair and equitable access to genetic resources and associated traditional knowledge, and fair and equitable sharing of benefits arising from them are regulated

Rationale for the National Target

Tropical coral reef organisms and their unique island vegetation have been regarded as rich biological resources with great potential for biotechnological research. Exotic marine and terrestrial plants are considered to harbour the potential to generate substances of benefit to humans making Maldives a favorite among researchers on marine and reef biodiversity. Already surveys have been carried out in the Maldives to collect marine sponges and other lower invertebrates to identify and isolate anti cancerous substances. The Maldives also has a rich history of traditional medicines and practitioners with a great deal of knowledge on local marine and terrestrial plants and animal species of medicinal value. Unfortunately there is no legislation to address matters of ABS in the country.This target will address regulation of research and their outputs.

Maldives has recently submitted the instrument of Accession to the ABS protocol and is currently undertaking the development of a legal framework on Access and Benefit sharing.

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Level of application

Jurisdiction

National / Federal

Relevance of National Targets to Aichi Targets

Aichi Target components

16. Nagoya Protocol on ABS

12. By 2025 invasive alien species pathways are identified and priority species are controlled or eradicated, and measures are in place to manage pathways to prevent their introduction and establishment

Rationale for the National Target

Corals reefs are diversity ecosystems ecologically balanced with well defined trophic relationships. Habitat disturbances and phase shifts on coral reefs are not unheard of due to introduced invasive species or outbreaks of diseases and pests. Invasive species of algae *Caulerpa racemosa* have been identified on reefs of Maldives by some studies (Montano 2012). It was suggested that this species has the potential to out-compete certain coral species leading to death of corals. The introduction widespread destruction of coconut palms by the coconut hispid beetle (http://www.fao.org/docrep/007/ad522e/ad522e09.htm) was another event in the Maldives where uncontrolled imports of plant matter can lead to devastating effects on local biodiversity. The Maldives is frequented by ships from all parts of the world where the bilge water discharge is thought to be a major pathway to the introduction of invasive alien species.	EN

This target aims at identifying invasive alien species pathways and to control, eradicate or take measures to prevent damage to biodiversity and ecosystem services caused by these species. Although there is no clear data on the invasive alien species in Maldives, few species have already been identified as described above. International cooperation and control in trade will be required in controlling the invasive alien species and addressing their pathways. The government has set up plant and animal quarantine facility at the main international airport of the Maldives to control the import and export of living plants and animals. This facility is an import control point for the control of invasive species and pest and diseases. Regulations and guideline on the export and import of plants and animal live species are in place and enforced by the Ministry of Fisheries and Agriculture. It is anticipated that by end of 2025, a database on invasive alien species will be established and their pathways of introduction will be controlled under stringent regulations and enforcement.

Level of application

Jurisdiction

National / Federal

Relevance of National Targets to Aichi Targets

Aichi Target components

9. Invasive Alien Species

Sub-Aichi Targets or Target components

12. Preventing extinctions

Relevant documents and information

- Paper by Montano 2012- Report by Shafia 2004 (http://www.fao.org/docrep/007/ad522e/ad522e09.htm#bm9)	EN

Other relevant website address or attached documents

Integrated control of coconut hispid beetle Brontispa longissima (Gestro) in the Maldives
Acropora muricata mortality associated with extensive growth of Caulerpa racemosa in Magoodhoo Island, Republic of Maldives

13. By 2020 all major fishery, including aquaculture and mariculture are managed and harvested sustainably

Rationale for the National Target

Maldives is a leading fishing nation in the Indian ocean specialising in fishing for oceanic tuna and tuna like species. Additionally many types of coral reef fisheries exist. Fisheries in the Maldives is the mainstay of the economy of many island communities relying heavily on fisheries resources for their economic and social well being, despite the fact that the Maldives is also a leading tourism destination. This target aims at sustainable management and harvesting of all fisheries by 2020. The activities planned to achieve the target include strengthening and revising relevant fisheries laws, regulatory framework and data collection. It also includes introducing certification systems and introducing sustainable fishery, monitoring, compliance and surveillance mechanisms. Additionally, this target will aim at recovering depleted species of fishery.	EN

Level of application

Jurisdiction

National / Federal

Relevance of National Targets to Aichi Targets

Aichi Target components

4. Use of natural resources
6. Sustainable fisheries
Areas under aquaculture are managed sustainably, ensuring conservation of biodiversity

Relevant documents and information

- Management plans for major fisheries (grouper and bait fishery)

- Fisheries Masterplan or the strategic action plan

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Other relevant website address or attached documents

Maldives Live Bait Fishery Management Plan
Maldives Grouper Fishery Management Plan
REPUBLIC OF MALDIVES PROJECT FOR THE FORMULATION OF MASTER PLAN FOR SUSTAINABLE FISHERIES (MASPLAN)

14. By 2017 fertilisers, insecticides, pesticide, excess nutrient management are sustainably managed

Rationale for the National Target

Agriculture is a sector that not only uses the limited land of the country but also uses chemicals. Large amounts of fertilisers, insecticides and pesticides are used in commercial agriculture. The use of such chemicals results in chemical accumulation in food, soil and ground water. It also results in resistance in pests. In particular small coral islands due to the nature of their geology and formation, and the interconnectedness of habitats makes them more susceptible to chemical impacts. The use of such agro-chemicals contaminates the ground water aquifers and affect the coral reef habitats through runoffs. Although there is a positive list of insecticides and fertilizers that can be imported into the country, the use of such chemicals needs to be regulated. It is necessary to regulate the use of chemicals especially pesticides and inorganic fertilisers to ensure that all agricultural practices are sustainable and the effects of such chemicals on ecosystems and species are minimised. The types of crops grown and the quality of soil in Maldives are limited. Hence, improper management will lead to loss of habitat, species and ecosystems. This target ensures sustainable management of biological resources to ensure that they will be safely transferred to future generations. The activities under this target include developing the necessary regulatory frameworks and introducing certification system for sustainable agriculture.

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Level of application

Jurisdiction

National / Federal

Relevance of National Targets to Aichi Targets

Aichi Target components

7. Areas under sustainable management

Sub-Aichi Targets or Target components

4. Use of natural resources
5. Loss of habitats
8. Pollution
13. Agricultural biodiversity

Relevant documents and information

- Draft agriculture masterplan documents
- Pesticide law and regulations drafted
- Good agriculture practices guidelines formulated

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Other relevant website address or attached documents

Ministry of Fisheries, Marine Resources and Agriculture

15. By 2017 at the latest, incentives, including subsidies, harmful to biodiversity are eliminated, phased out or reformed in order to minimise or avoid negative impacts

Rationale for the National Target

Harmful Incentives and subsidies to fishermen and farmers include provision of agro chemicals to farmers and fuel subsidies for fishermen.

The Government initiated a subsidy scheme for farmers in 2009. Farmers can access inorganic

fertilisers and chemicals through the subsidy scheme. This has potential to increase significantly the use of imported fertilisers and chemicals.

The excessive use of fertilisers and chemicals has implications for both water security and food security in the Maldives. The islands have a very fragile and limited freshwater lens which is susceptible to pollution from chemicals and fertilisers. Excessive use of chemicals for farming is a serious threat to human health through residues left in the produce.

Fishermen were given subsidies for fuel which created unfair advantages for large vessel owners. Nearly a 100 million rufiyaa per year was allocated for fuel and other subsidies for fishermen.

This target aims at eliminating and phasing out of existing incentives and subsidies that are harmful to biodiversity by 2017. The activities under the target include discontinuing existing subsidies and incentives.

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Level of application

Jurisdiction

National / Federal

Relevance of National Targets to Aichi Targets

Aichi Target components

3. Incentives

Sub-Aichi Targets or Target components

6. Sustainable fisheries
7. Areas under sustainable management

16. By 2020 at the latest, positive incentives for conservation and sustainable use of biodiversity are developed and applied

Rationale for the National Target

Incentives that enhance biodiversity are just beginning to be realised in local island communities. Efforts to overcome overexploitation of marine and terrestrial resources can only be successfully realised by supporting the resource users in terms of changes in their circumstances and also incentivising the development of new and more sustainable alternative resource use practices. Sustainable use of sensitive areas and habitats by assisting local communities to set up and manage such areas and ensuring benefits from protected areas promotes conservation of biodiversity. This target aims at creating positive incentives for sustainable use of biodiversity. The target will be achieved by focusing on various industries and communities that depend on biodiversity and ecosystem services for economic activities and livelihoods. The activities of this target include introducing incentives for industries and activities that are conservation	EN

oriented and are sustainable.

Level of application

Jurisdiction

National / Federal

Relevance of National Targets to Aichi Targets

Aichi Target components

3. Incentives

Sub-Aichi Targets or Target components

1. Awareness of biodiversity values
2. Integration of biodiversity values
4. Use of natural resources
5. Loss of habitats
6. Sustainable fisheries
11. Protected areas
15. Ecosystem resilience

19. Biodiversity knowledge

Relevant documents and information

- Shark fisheries gear buy back program - The identification of sensitive area lists by EPA (Represents key Protected Areas) - Protected areas that are generating income - funding provided for activities in Baa Atoll biosphere reserve - Ecotourism initiatives in Addu and Fuvahmulah	EN

Other relevant website address or attached documents

Status of Shark Fishery in Maldives
Addu Nature Park Ecotourism
Fuvahmulah Nature Park Ecotourism
Baa Atoll UNESCO Biosphere Reserve Conservation Fund Grant Awarding
Baa Atoll UNESCO Biosphere Reserve

17. By 2025 pressures on coral reefs and other vulnerable ecosystems due to anthropogenic activities and climate change are minimised

Rationale for the National Target

Coral reefs are known to be in decline globally due to human induced developmental activities on coral reefs and climate related hazards and disturbances. The Maldives represents the archetype of atoll type coral reefs in the world and one of the most important atoll reef systems in the Indian Ocean. Coral reefs harbour diverse habitat types and ecosystems and services.	EN

Coral islands, Mangroves, wetlands, swamps, inland lagoons and seagrasses are some of the important ecosystems associated with coral reefs. Developments on coral reefs affect all these ecosystems adversely. Climate induced temperature fluctuations, extreme weather and hydrodynamics forcing together with phase shifts due to human induced factors multiply to cause death and destruction to large parts of coral reefs more frequently in the form of bleaching and disease. This is amplified by habitat changes and overexploitation of coral reef fisheries and other resources.

The aim of this target is to reduce anthropogenic and climate change pressures on coral reef biodiversity and to create balance between anthropogenic activities and conservation. The most vulnerable ecosystems probably are those with most human intervention such as the terrestrial, reef and mangrove ecosystems. The activities under this target include achieving low emission strategies developing a list of vulnerable ecosystems with the extent of risks they face from various threat factors. It also includes developing necessary policies and regulations.

Level of application

Jurisdiction

National / Federal

Relevance of National Targets to Aichi Targets

Aichi Target components

10. Vulnerable ecosystems

Sub-Aichi Targets or Target components

5. Loss of habitats
6. Sustainable fisheries
8. Pollution
9. Invasive Alien Species
12. Preventing extinctions
15. Ecosystem resilience

Relevant documents and information

- National coral reef monitoring framework document
- IUCN awareness materials - Project REGENERATE
- Climate changes policy report

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Other relevant website address or attached documents

National Coral Reef Monitoring Framework
Maldives Climate Change Policy Framework
Laamu-Atoll-Habitat-Classification-Scheme[1].pdf
Climate change and coral reefs_web.pdf
Climate Smart Conservation_web.pdf
Resilience-based management_web.pdf

18. By 2025, at least 10% of coral reef area, 20% of wetlands and mangroves and at least one sand bank and one uninhabited island from each atoll are under some form of protection and management

Rationale for the National Target

Coral reefs and associated ecosystems (mangroves, wetlands, sand banks, coral islands, inland and reef lagoons) are threatened by infrastructure development and resource exploitation leading to habitat destruction, species depletion and pollution. Many studies indicate that coral reefs are in decline world wide and urgent measures need to be taken to reverse the trend.

The coral reefs of the Maldives are globally significant and represent the best known of atoll type reefs systems in the world. They form the seventh largest reef system in the world and the coral reefs of Maldives represent as much as 3.14% of the world's reef area. The 21 natural atolls of the Maldives consists of more than 2,000 distinct coral reefs. The marine biological diversity of these reefs are outstandingly rich, making them one of the world's most diverse marine ecosystems. In the Maldives, 258 species of hermatypic corals and 36 species of sponges are found. Altogether 285 species of algae, five species of sea grass, 400 species of molluscs, 350 species of crustaceans and 80 species of echinoderms have been documented.

Protected areas play a significant role in conservation of species and ecosystems. These protected areas when managed properly will experience minimal human induced pressures. This target aims to protect distinct coral reefs and associated habitats in line with Aichi Biodiversity Target 11. The activities under this target include identifying significant ecosystems, declaring protected areas and creating management plans or regulations.

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Level of application

Jurisdiction

National / Federal

Relevance of National Targets to Aichi Targets

Aichi Target components

11. Protected areas

Sub-Aichi Targets or Target components

5. Loss of habitats
6. Sustainable fisheries
10. Vulnerable ecosystems

Relevant documents and information

- protected areas guidelines and regulations
- EPA studies and reports of sensitive areas and protected area lists.
- National Environmental Action Plan 3
- MEE policies and strategies
- SAP 2009-2013
- Forth Tourism Masterplan
- National sustainable development strategy

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Other relevant website address or attached documents

Protected Areas.pdf
Third National Environment Action Plan 2009-2013
Policies and Strategies
SAP 2009-2013
National Sustainable Development Strategy
Fourth Tourism Master Plan 2013-2017
Unofficial Translation_ Protected Area Regulation.pdf

19. By 2025, impacted ecosystems that provide essential services related to water, human health, wellbeing and livelihood are restored significantly

Rationale for the National Target

The objective of this target is to ensure impacted coral reef ecosystems that provide essential services are sustainably restored so that they can continue to provide the services. In Maldives, these ecosystem components include island ground water aquifers, terrestrial vegetation, coral habitats, mangroves and seagrass beds. The activities under this target include identifying impacted ecosystem components affected, conducting restoration programmes and in particular establishing a beach vegetation zone wherever feasible around each island.

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Level of application

Jurisdiction

National / Federal

Relevance of National Targets to Aichi Targets

Aichi Target components

14. Essential ecosystem services

Sub-Aichi Targets or Target components

6. Sustainable fisheries
8. Pollution

10. Vulnerable ecosystems
15. Ecosystem resilience

Relevant documents and information

- Reef rehabilitation and restoration work (reports of)
- Bleaching reports of 1998 and 2016 which show the loss of resilience of the reef ecosystem and related components
- Ground water studies
- Extend of seagrass habitats and losses on resorts
- Mangrove loss (eg Kulhudhuffushi) and restoration efforts

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Other relevant website address or attached documents

Status of Coral Bleaching in Maldives 2016
Assessing the impacts of coral bleaching on tourism
Assessment of Maldivian Coral Reefs in 2009 After Natural Disasters
EPA website: EIA reports
EPA Website: water quality test results

20. By 2025 rate of loss of all natural habitats are identified and where rate of loss is high, the rate of loss is at least halved or where feasible, brought close to zero

Rationale for the National Target

Development on coral reefs result in direct loss of habitat in most cases which are measured through legally driven Environmental Impact Assessments and suggested mitigations. Natural habitats in the Maldives are parts of individual coral reef units of where

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there are more than 2000 individual coral reef units. The habitats within these 2000 coral reefs, which in turn are the building blocks of atolls, can be clearly delineated, categorised and inventorised. Natural habitats on coral reefs may be identified as follows:

- Coral reef outer slopes
- Reef flats
- shallow sandy lagoons
- Deep reef lagoons
- Beach and nearshore habitats
- seagrass beds
- mangroves and wetlands
- Coral islands
- Beach vegetation

Habitat definition is a complex issue but for an individual coral reefs, habitats can be identified, characterised and mapped as above.

Similar to coral reefs oceanic habitats such as major fishing grounds and seamounts and other oceanic environments will be explored to identify significant habitats.

This target identifies the rate of loss of natural habitats and where rate of loss is found to be high, the rate of loss will be halved and where feasible brought close to zero. While the target 19 focuses on essential services, this target emphasises the restoration of all natural habitats. The activities under this target include identifying ecologically sensitive habitats, observe changes to these habitats, ensuring Strategic Environmental Assessment into all developmental practices and amending the EIA process.

Level of application

Jurisdiction

National / Federal

Relevance of National Targets to Aichi Targets

Aichi Target components

5. Loss of habitats

Sub-Aichi Targets or Target components

6. Sustainable fisheries
10. Vulnerable ecosystems
11. Protected areas
14. Essential ecosystem services

Relevant documents and information

- EIA reports for the past 20 years to identify and measure habitat loss.
- Habitat maps of Laamu Atoll
- Sensitive area lists compiled by EPA

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Other relevant website address or attached documents

Sensitive Environments.pdf
Laamu Habitat Map.png
EPA Website: EIA Reports

21. By 2020, prevent extinction of locally known threatened species.

Rationale for the National Target

The reef ecosystem of the Maldives has internationally threatened populations of hawksbill *(Eretmochelis imbricata)* and green turtles *(Chelonia mydas),* and is reported to be one of the most important feeding areas for hawksbill turtles in the Indian Ocean. Hawksbill turtles are ranked in the Red List of Threatened Animals by IUCN as 'Critically Endangered', while green turtles are ranked as 'Endangered' (Baillie and Groombridge 1996). Furthermore, all five marine turtles occurring in the Maldives are listed in Appendix I of the Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES) as 'Most Endangered Species' since 1977, recognizing the threat of extinction that is, or may be, affected by trade. Green turtles are also listed as 'Endangered' in Appendices I and II of the Convention on Migratory Species.

The atolls of the Maldives are also home to globally significant populations of whale shark *(Rhincodon typus),* manta rays *(Manta birostris),* reef sharks and more than 21 species of whales and dolphins. Other globally significant coral reef species include the Napoleon wrasse *(Cheilinus undulatus)*, giant grouper *(Epinephelus lanceolatus),* giant clam *(Tridacna squamosa)* and black coral *(Antipatharia).*

The Maldives also has species of oceanic and reef associated sharks that are threatened. The Maldives was effectively made a shark sanctuary in 2010 banning all forms of sharks in its EEZ.

This target, specifically on species, aims at preventing species extinction caused due to anthropogenic pressures and natural threats. The target is to be achieved by 2020 and includes activities to identify threatened species; amend, prepare new regulations and enforce them; designate protected species; and enforce management plans for them.

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Level of application

Jurisdiction

National / Federal

Relevance of National Targets to Aichi Targets

Aichi Target components

12. Preventing extinctions

Sub-Aichi Targets or Target components

1. Awareness of biodiversity values
9. Invasive Alien Species

Relevant documents and information

- Current regulations and notifications on protected species

- lists of species protected in the country

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Other relevant website address or attached documents

EXPORT BANNED marine SPECIES list.pdf
Proteced species of Maldives (State of the Environment report 2016).png

22. By 2018 illegal trade of locally protected species is eliminated

Rationale for the National Target

Maldives has a history of using endangered trade in wildlife such as hunting for turtles, the harvesting of corals and some species of sharks. Locally known rare species of birds have also been traded and continues to do so by pet lovers. Weak regulations and monitoring by law enforcement authorities have led to brisk but bold cases of illegal trade in locally known protected and rare species.

Therefore Illegal trade of locally protected and rare species is an issue that requires attention. Recently, there has been an increase in the number of protected species subjected to illegal poaching and trade. Hence, the objective of this target is to prevent such trade. The activities for this target include identifying routes and pathways for such trade, enforce preventive measures and amend regulations as necessary.

EN

Level of application

Jurisdiction

National / Federal

Relevance of National Targets to Aichi Targets

Aichi Target components

4. Use of natural resources

Sub-Aichi Targets or Target components

10. Vulnerable ecosystems
12. Preventing extinctions
15. Ecosystem resilience

Relevant documents and information

- Migratory Birds regulations
- List of species of birds protected

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Other relevant website address or attached documents

Protected Birds of Maldives

23. By 2020 pollution from waste and sewage has been brought to levels that are not detrimental to ecosystem functions and biodiversity

Rationale for the National Target

One of the main sources of pollution of ground water and also surrounding seas in the Maldives comes from the use of inorganic nutrients in the form of nitrates and phosphates. The import of agricultural chemicals is a good indicator of the scale of the problem. The shallow groundwater aquifers get contaminated by heavy use of nutrients on the porous soils. It is also believed that nutrient enrichment of the surrounding waters of agricultural islands are possible by seepage.

Discharge of untreated sewage and affluent is a common issue leading to nutrient enrichment of reef and its surrounding waters leading to eutrophication and disease in marine animals.

Another source of major pollution of the marine and terrestrial environment comes from plastics. Plastic pollution has become an issue of grave concern for both human health and animals. Urgent action is necessary to address the plastics on land and marine environment. It is believed that microplastics have already contaminated marine food

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chains at various trophic levels.

Multiple sources of wastes are also generated on islands and open garbage dumps are common on many inhabited islands posing major threats to the coastal and nearshore environment as well as contamination of soils and ground water.

These sources of pollutants affect ecosystem functions and services by contamination of reef waters, fish and marine life. Diseases in corals and fish are thought to be increasing. Harmful algal blooms and coral to algal phases shift are known to result due to nutrient enrichment causing major disruptions to biodiversity.

This target aims at reducing impacts of chemicals, waste and sewage pollution on biodiversity and ecosystem services. Different forms of waste and pollution are major threats to vulnerable ecosystems such as the reefs, lagoons, mangroves and terrestrial habitats. They also cause huge threat to the very delicate water table which is an ecosystem service to both humans and other terrestrial biodiversity. The activities for this target include creating awareness, enforcing sewage and waste water regulation and establishing air pollution control standards.

Level of application

Jurisdiction

National / Federal

Relevance of National Targets to Aichi Targets

Aichi Target components

8. Pollution

Sub-Aichi Targets or Target components

5. Loss of habitats
10. Vulnerable ecosystems
15. Ecosystem resilience

Relevant documents and information

- Waste management regulations - Waste management policy - National Water and Sewerage Policy	EN

Other relevant website address or attached documents

National Waste Management Policy
National Water and Sewerage Policy

24. By 2025 genetic diversity of cultivated and traditionally used medicinal plants and animals including socioeconomically and culturally valuable species and their associated traditional knowledge is maintained to prevent genetic erosion and safeguard their diversity

Rationale for the National Target

Traditional medicine is an age old tradition in the Maldives and part of Maldivian culture. For centuries traditional medicinal healers have been active in providing health care to the local communities through harvesting and harnessing plants, animals and their	EN

parts and products in various forms. The geographic dispersion of coral reef islands and the patterns of habitation and remoteness of the islands have led to the traditional medicinal practitioners on many of the inhabited islands. Development of modern health services on inhabited islands have led to lesser use of traditional medicines and the services are far and few in the country now. However, there is a bank of scattered information on traditionally used marine and terrestrial biodiversity for medicinal purposes and there is a need to compile and maintain this data.

A decline in the biodiversity of medicinal plants has also been identified by stakeholders. The Maldives' rich tradition of local medicinal practices with many locally growing plants being used in the preparation of medicines needs to be conserved. Plant derivatives are used as pest repellents to protect crops. Though traditional forms of medicine have not been completely documented, some 122 species of plants with medicinal properties were recorded by the Ministry of Fisheries and Agriculture in 1992 (Fifth National Report on Biodiversity to CBD). A report by the Ministry of Environment in 2002 states that some 300 plant varieties are used in traditional medicines in the Maldives.

The objective of this target is to create a knowledge base of at least some significant species and ecosystems by 2025. It also aims at creating museum, botanical and zoological gardens in addition to conducting programmes to sustain species of medicinal value.

Level of application

Jurisdiction

National / Federal

Relevance of National Targets to Aichi Targets

Aichi Target components

18. Traditional knowledge

Sub-Aichi Targets or Target components

1. Awareness of biodiversity values
12. Preventing extinctions
19. Biodiversity knowledge

Relevant documents and information

- List of Traditional Medicine in Maldives - Common plants of the Maldives (Sujanapal and Sankaran 2016)	EN

Other relevant website address or attached documents

Traditional medicine.pdf
Common plants of the Maldives

25. By 2025 national data system on the status of key ecosystems, species and genetic diversity are in place and science based technologies related to biodiversity are improved, shared and transferred

Rationale for the National Target

The Maldives constitute the best example of atoll type reefs of the world covering a total reef area of 4500 sq km. The 2000 individual reefs which form these atolls have complex habitat types spanning a depth of 30-60 meters and varying surface area. The vast oceanic area of the Maldives cover pelagic and oceanic deep habitats to seamounts and rich fishing grounds together with significant populations of cetaceans, sharks and many other charismatic species. The lack of comprehensive data for coral	EN

reef and oceanic habitats remain a serious impediment to the conservation and management of their biodiversity. Spatial maps of biologically and ecologically significant habitats need to be compiled in appropriate data systems, identified and inventoried and valued so that they can be used for informed decision making.

The objective of this target is to establish a well-managed data management system on biodiversity and ecosystem services across diverse habitat type spanning the EEZ of the Maldives. The activities under this target include creating and maintaining a database, training personnel, using advanced methodologies for data gathering and integrating the results of data into national policy and planning.

Level of application

Jurisdiction

National / Federal

Relevance of National Targets to Aichi Targets

Aichi Target components

19. Biodiversity knowledge

Sub-Aichi Targets or Target components

1. Awareness of biodiversity values
2. Integration of biodiversity values
4. Use of natural resources
5. Loss of habitats

10. Vulnerable ecosystems
11. Protected areas
15. Ecosystem resilience

Relevant documents and information

- Policy document on the establishment of an NGIS - Laamu Atoll mapping under LaCRED project - Baa Atoll mapping by Serge Andrefouet and multi specialist teams	EN

Other relevant website address or attached documents

One Map Maldives
Maldives Land and Survey Authority
Habitat mapping for conservation planning in Baa Atoll, Republic of Maldives

26. By 2025 innovative financing mechanisms for biodiversity conservation are established.

Rationale for the National Target

In order to effectively implement the NBSAP and achieve its objectives, it is essential to have the financial support for the entire period of implementation. As such it is important for the NBSAP to be fully adopted by all relevant agencies identified as stakeholders in the NBSAP. With such support, negotiations with the Ministry of Finance, and partner agencies and the President's Office can be more effectively undertaken. Biodiversity is both directly and indirectly important to the economy of the Maldives. The direct contribution of biodiversity to key economic indicators is well known (Emerton L., Baig S. & Saleem M. 2009). Studies have also shown the indirect value as a contribution to shoreline protection, carbon sequestration, fishery nurseries, etc.	EN

The Maldives has some good examples of financing environmental management at the national and sub-national level. For instance, the Baa Atoll Conservation Fund has been created as a collaborative effort between the Global Environment Facility and the Government of Maldives, as well as the majority of tourist resorts operated in the Baa Atoll pledging to donate, which is to finance conservation projects as well promote sustainable livelihood opportunities in the area. Equally, the Maldives Green Fund has been announced to work as an overarching trust fund for climate change, conservation, and sustainable development projects nationally.

The objective of this target is to enhance and strengthen the existing frameworks for financing biodiversity conservation and create means of generating new and innovative financing mechanisms and mobilising resources required to implement the NBSAP 2016- 2025. The activities under this target include introducing eco-tourism and user-pay principles in addition to promoting private sector initiatives and collaborations in biodiversity conservation. It also includes using existing and additional resources of funding for the activities.

Level of application

Jurisdiction

National / Federal

Relevance of National Targets to Aichi Targets

Aichi Target components

20. Resource mobilization

Sub-Aichi Targets or Target components

1. Awareness of biodiversity values
11. Protected areas

14. Essential ecosystem services

Relevant documents and information

Baa atoll conservation fund

The green tax / fund

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Other relevant website address or attached documents

Green Tax
Baa Atoll Biosphere Reserve

Section II. Implementation measures, their effectiveness, and associated obstacles and scientific and technical needs to achieve national targets

Protection of at least 1 island, 1 reef and 1 mangrove wetland from each administrative atoll of Maldives

Measures taken to contribute to the implementation of your country's national biodiversity strategy and action plan

The Government of Maldives has pledged to designate at least 1 island, 1 reef and 1 mangrove/ wetland area from each administrative atoll of the Maldives. This pledge was made in 2018 and is planned to be implemented within 5 years. Under the pledge, 15 new areas from *HaAlif, HaDhaal, Shaviyani* and *Noonu* Atoll (collectively referred to as "*Boduthiladhummathi*") have already been protected. This totals up the protected areas of Maldives under the Environment Protection and Preservation Act to 61 areas. At the time of this reporting the President of Maldives has just declared 11 out of these 61 areas, and hence, maps of these 11 areas have not been produced. This report mostly covers the 50 areas protected prior to this.

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National Target(s)

18. By 2025, at least 10% of coral reef area, 20% of wetlands and mangroves and at least one sand bank and one uninhabited island from each atoll are under some form of protection and management

Assessment of the effectiveness of the implementation measure taken in achieving desired outcomes

Measure taken has been partially effective

tools or methodology used for the assessment of effectiveness above

Although the protected areas are being declared under Environment Protection and Preservation Act of Maldives, management plans exist for only 5 areas of the existing protected areas. EN

Relevant websites, links, and files

Protected Areas.pdf (Protected Areas Map)

Protection of all species of turtles under law

Measures taken to contribute to the implementation of your country's national biodiversity strategy and action plan

There are 5 species of turtles found in Maldives. These are:

1.Hawksbill turtle
2.Green turtle
3.Loggerhead turtle
4.Olive Ridley turtle
5. Leatherback turtle

Of these species, the hawksbill turtle is listed as critically endangered and green turtle is listed as endangered under the IUCN EN

Red List of Threatened Species.

On 4th April 2016, to ensure the conservation of marine turtles, all species of turtles were declared as protected under Environment Protection and Preservation Act of Maldives.

The Maldives is also a signatory to the "Memorandum of Understanding of the Conservation and Management of Marine Turtles and their habitats of the Indian Ocean and South East Asia" under the Convention on the Conservation of Migratory Species of Wild Animals.

In addition to the legal protection under Environment Act, the Regulation on Fishing and Export of Large Yellow fin Tuna describes turtle mitigation measures in longline fishing operations, including release of live turtles, and having de-hookers and line cutters on vessels. Pole and line fisheries do not have turtles as by catch in Maldives.

National Target(s)

21. By 2020, prevent extinction of locally known threatened species.

Assessment of the effectiveness of the implementation measure taken in achieving desired outcomes

Measure taken has been effective

tools or methodology used for the assessment of effectiveness above

The number of fines under Penalties and Liabilities Regulation regarding poaching of turtles and turtles eggs and other illegal activities. EN

Relevant websites, links, and files

Marine Turtles of the Maldives: A field identification guide

Strengthen environmental policing

Measures taken to contribute to the implementation of your country's national biodiversity strategy and action plan

- Establishment of an Environmental Crime Unit within the Maldives Police Services

- Training law enforcement Officers in policing biodiversity conservation and environmental crime

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National Target(s)

2. By 2020 enforcement of laws and regulations on biodiversity are strengthened
1. By 2020 governance on biodiversity conservation is strengthened at local and national level

Assessment of the effectiveness of the implementation measure taken in achieving desired outcomes

Measure taken has been partially effective

tools or methodology used for the assessment of effectiveness above

- Dedicated Number of personnel allocated to law enforcement (number of officers)

- Number of cases of illegal activities dealt with by Environment Police

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Assign officers to address environment-related issues at community level.

Measures taken to contribute to the implementation of your country's national biodiversity strategy and action plan

- Recruit and select officers at island and atoll level to address biodiversity conservation within communities

  · While Maldives has 20 Administrative atolls, 3 atolls have environmental officers appointed by the Government; they are *Baa* Atoll for Baa Atoll Biosphere Reserve, Addu and Fuahmulah Atolls for their

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respective Nature Parks.

· Planned to appoint environmental officers in local councils

- In atoll systems with numerous reefs making up atolls, conservation need to be mainstreamed into island development plans. This can be best achieved by community based conservation officers.

National Target(s)

1. By 2020 governance on biodiversity conservation is strengthened at local and national level

Assessment of the effectiveness of the implementation measure taken in achieving desired outcomes

Measure taken has been partially effective

tools or methodology used for the assessment of effectiveness above

Atoll ecosystem conservation is targeted through the recruitment of locally based environmental officers. Locally based officers have effectively engaged with local communities in targeted atolls through community outreach programs. The promotion of conservation through protection of sensitive habitats can be better achieved by such measures. EN

Relevant websites, links, and files

Addu Nature Park
Ba Atoll UNESCO Biosphere Reserve
Fuahmulah Nature Park Facebook Page

Other relevant website address or attached documents

Facebook Page of Ministry of Environment

Obstacles and scientific and technical needs related to the measure taken

The obstacles or challenges faced in implementation of any activity in Maldives will usually be common throughout the EN

spectrum. The biggest challenges include

- the dispersed nature of the population into small communities living in isolated islands spreading over 800 Km from North to South
- The large marine areas in between the islands and outside atolls. The total land area of the country is less than 1% which is dispersed over 800km of the ocean as 1192 individual islands.
- Developing human capacity within each inhabited island to manage the environment is a challenge

Efforts to amend island development plans and sectoral development plans to mainstream biodiversity into their respective plans.

Measures taken to contribute to the implementation of your country's national biodiversity strategy and action plan

- Guidelines developed by the Local Government Authority to assist island councils to develop / amend island level sectoral development plans.

- Fisheries masterplan (2016 - 2021)

- Tourism masterplan

- The Island Developmental Plans and Atoll Developmental Plans mandated to each atoll and island council under the Decentralization Act requires inclusion of environmental protection and conservation. The development of these plans further need to be strengthened and regularly revised.

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National Target(s)

1. By 2020 governance on biodiversity conservation is strengthened at local and national level

3. By 2025 mainstream biodiversity into island, atoll, sectoral and national plans

Assessment of the effectiveness of the implementation measure taken in achieving desired outcomes

Measure taken has been effective

tools or methodology used for the assessment of effectiveness above

- Island development plans define land use plans so as to reduce biodiversity loss, environmental stewardship and habitat conservation - Fisheries sector masterplan clearly defines the strategies for conservation of fisheries and sustainable use of both oceanic and reef resources - Tourism sector masterplan and relevant policies and guidelines are effective in coral reef conservation through a system of semi protected coral reef based resorts.	EN

Obstacles and scientific and technical needs related to the measure taken

- sectoral conflicts - resources for implementation of plans	EN

Certification of the Maldives skipjack pole and line fisheries

Measures taken to contribute to the implementation of your country's national biodiversity strategy and action plan

The Maldives' pole and line skipjack (*Katswonus pelamis*) fishery was certified as an environmentally and ecologically sustainable fisheries by the Marine Stewardship Council (MSC) of the UK in November 2012. The fisheries continues to hold the status in 2018. It was the first large pole and line fishery and the first Indian Ocean fishery to achieve MSC certification. Skipjack from members of the client group Maldives Seafood Processors and Exporters Association is now eligible to be	EN

marketed with the MSC’s eco-label world wide.

National Target(s)

4. By 2025 government, businesses and stakeholders at all levels have taken steps to achieve or have implemented plans for sustainable production and consumption and have kept the impacts of use of natural resources well within safe ecological limits

Assessment of the effectiveness of the implementation measure taken in achieving desired outcomes

Measure taken has been effective

tools or methodology used for the assessment of effectiveness above

- The certification of the fishery is a time bound certification system where rigorous assessments and audits are performed every 5 years. EN

Relevant websites, links, and files

Maldives pole and line: msc fisheries

Farukoe program (Children of the reef)

Measures taken to contribute to the implementation of your country’s national biodiversity strategy and action plan

The Maldives is built entirely of coral reefs and life in the Maldives is centered on coral reef biodiversity. Conservation of coral reef biodiversity is best achieved if we start early with school aged children. This measure is taken to ensure that school aged children in all schools get to see the reef. The program is very effective and have now reached 45,000 our of a total student population of about 75,000 in the country. EN

'Farukoe' meaning *Child of the Reef* is a program formulated and coordinated by the Ministry of Education of the Maldives. The program invited every single school student of the Maldives to explore the reef around them before the end of 2018. The program is implemented by experienced coral reef educators and are designed to to educate and make school children aware of the oceanic and reef life and the changes that take place on reefs. The program encourages students and parents to appreciate the conservation of coral reef biodiversity and the protection of the environment. By a well organised and target approach providing a child with the opportunity to visit the reef, snorkel on it and observe life on reefs makes them become a voice for the reefs and oceans. The overarching goal is to expose students, teachers and parents to explore the reef and develop bonds between them in conservation and environmental protection.

National Target(s)

5. By 2025 people are aware of the value of biodiversity and the steps they can take to conserve and use it sustainably

Assessment of the effectiveness of the implementation measure taken in achieving desired outcomes

Measure taken has been effective

tools or methodology used for the assessment of effectiveness above

Develop teams of experts to take school children to visit and snokel and experience coral reef life and biodiversity. The program is administered and coordinated by the a Unit at the Ministry of Education.

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Relevant websites, links, and files

Farukoe (child of reef)

Provide specialised training for law enforcement officers

Measures taken to contribute to the implementation of your country's national biodiversity strategy and action plan

Training of law enforcement officers at Maldives Customs Services and Maldives Police Services. Customs Officers operates from all major ports and airports in the country. Illegal trade of wildlife and biodiversity is best intercepted by relevant customs official at these entry and exit points. Number of training and awareness programs have been conducted on regular basis to Customs officials on trade in species as in CITES regulations.

At the same time efforts are continuing to establish dedicated environmental law enforcement capacity within the Maldives Police Services. Environmental Police have been commissioned and an Environment Crime Unit has been established within the Maldives Police Services.

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National Target(s)

7. By 2020 law enforcement officials are aware of the national laws, regulations and international obligations of Maldives and enforce them to conserve biodiversity

Assessment of the effectiveness of the implementation measure taken in achieving desired outcomes

Measure taken has been effective

tools or methodology used for the assessment of effectiveness above

- Reports from Maldives Customs Services

- Reports from Maldives Police Services

-Reports from EPA

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Training and capacity building for Customs Officers

Measures taken to contribute to the implementation of your country's national biodiversity strategy and action plan

Training Customs Officers to make them aware of the "Convention on International Trade in Endangered Species of Wild Fauna and Flora" and their role as the enforcement agency including the regulatory requirements that fall under the Customs jurisdiction.

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National Target(s)

9. By 2018 international trade of endangered species of wild fauna and flora are regulated

Assessment of the effectiveness of the implementation measure taken in achieving desired outcomes

Measure taken has been effective

tools or methodology used for the assessment of effectiveness above

- Customs Authority and responsible officers at various levels are aware of their obligations under the CITES and the Appendices under the convention.

- The apprehension and reporting of illegal imports and exports have improved.

EN

Formulation of the National Biosafety Framework

Measures taken to contribute to the implementation of your country’s national biodiversity strategy and action plan

- National biosafety framework and draft regulation in place

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National Target(s)

10. By 2018, Cartagena Protocol on Biosafety is implemented in Maldives

Assessment of the effectiveness of the implementation measure taken in achieving desired outcomes

Measure taken has been partially effective

Catch documentation or certification scheme for major export fisheries

Measures taken to contribute to the implementation of your country's national biodiversity strategy and action plan

The Maldivian tuna fishery exports are now regulated by a catch certification or documentation system. This is a measure taken specifically to combat IUU fishing and fisheries sustainability. The catch documentation system ensures that traceability, data collection and reporting, fish quality and hygiene, responsible fishing practices. The end result of the catch certification system is that every fish landed is accounted for and the gear and techniques employed to catch the fish can be verified including many other key component of the Code of Conduct for Responsible fisheries. The program also guarantees the legal origin of the fisheries product in question

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National Target(s)

13. By 2020 all major fishery, including aquaculture and mariculture are managed and harvested sustainably

Assessment of the effectiveness of the implementation measure taken in achieving desired outcomes

Measure taken has been effective

tools or methodology used for the assessment of effectiveness above

- system verified and in operation at MOFA (web link)

EN

Other relevant website address or attached documents

Maldives National Report to IOTC Scientific Committee (1).pdf

Formulation and implementation of Fishery Management Plans

Measures taken to contribute to the implementation of your country’s national biodiversity strategy and action plan

signs It was a necessary measure to manage the fishery sustainably.

The Maldivian Grouper Fishery Management Plan was formulated and finalized through a participatory approach. The plan is based on the findings of many reviews and earlier surveys of the fishery as well as abundance and spawning aggregation identification interviews (Grouper Management Plan). The plan introduced size limits, recommended closure of spawning aggregation sites, regulated fishery, mandated logbooks and data collection, long term monitoring of catch, abundance and spawning aggregation sites, and national level awareness programmes.

The Grouper Fishery Management Plan came into force in 2012. The biological nature of groupers such as their longevity, late maturity, characteristic change of sex from females in their early life stages to become mature males, and formation of spawning aggregations make them extremely vulnerable to overfishing. Their management was a response to a need to manage the Maldivian grouper fishery to ensure sustainability of the resource for future generations. Reef fishing logbooks have been recently introduced and is being enforced slowly.

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National Target(s)

13. By 2020 all major fishery, including aquaculture and mariculture are managed and harvested sustainably

Assessment of the effectiveness of the implementation measure taken in achieving desired outcomes

Measure taken has been partially effective

tools or methodology used for the assessment of effectiveness above

- Nationwide consultation with fishermen were held in taking this measure.
- There is a tendency for grouper fishermen to disagree with some of the implementation measures.
- Monitoring is weak in general at all points.

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Other relevant website address or attached documents

Maldives Grouper Fishery Management Plan Awareness Leaflet

Obstacles and scientific and technical needs related to the measure taken

- lack of fishery officers trained to monitor the fishery at atoll/island levels

EN

Monitoring Control and Surveillance of fisheries

Measures taken to contribute to the implementation of your country's national biodiversity strategy and action plan

Monitoring, control and surveillance (MCS) is about compliance to fishery management measures. Monitoring gathers information on the fishery that is used to assist in developing and assessing appropriate management measures, while surveillance uses this information to ensure that these controls are complied with (FAO Report). **Monitoring** - the continuous requirement for the measurement of fishing effort characteristics and resource yields; **Control** - the regulatory conditions under which the exploitation of the resource may be conducted; and **Surveillance** - the degree and types of observations required to maintain compliance with the regulatory controls imposed on fishing activities.

A Vessel Monitoring System (VMS) is an important component of an MCS program. It provides real-time position, course and speed (PCS) data of the vessel through a communication link directly into a base station which is usually within a law enforcement organisation. This allows operators to follow all licensed activity as it happens. These data are

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sent from a unit on the vessel to a shore receiving station that then displays the vessels on electronic maps with an accuracy of around 100 meters. Satellite communication is most commonly used, although VMS can be implemented through a range of communication solutions depending on their respective coverage. Fishing in illegal areas, trans-shipments of fish and transfer of fuel can all be indicated through this system. VMS is a tool to assist in more timely and cost effective monitoring and surveillance of authorised and participating fishers. It also significantly supports the more efficient direction and deployment of patrol vessels and patrol aircraft. VMS also creates a solid safety feature for vessels as their position is known at all times and an emergency function is built into the system (FAO Report by Per Erik BERGH and Sandy DAVIES).

A Vessel monitoring was established in early 2012, but was not fully functional until August 2013. From November 2011 Maldives started trials of the systems by installing Vessel- Locating Devices (VLDs) on two long line vessels. For various reasons the trail period went on for a year, until eventually the contract with the service provider was terminated. A new service contract was successfully negotiated and signed in August 2013, which allowed resumption of the installation of the VLDs on the vessels. At the time of writing there are nine long line vessels with the VLDs, which are monitored round the clock.

Under the current regulations, the following arrangements have been made.

1. All long line fishing vessels should have the Vessel Monitoring Systems (VMS) on board.

2. Vessels licensed for hand line yellow fin tuna fishing should install VLD.

3. Pole and line fishing vessels holding a valid license should install VLD in the fishing vessel.

Assessment of the effectiveness of the implementation measure taken in achieving desired outcomes

Measure taken has been effective

tools or methodology used for the assessment of effectiveness above

- the processes in an MCS are prohibitively expensive

EN

Formulation of a Fisheries Masterplan

Measures taken to contribute to the implementation of your country's national biodiversity strategy and action plan

Fisheries is the most important economic activity with respect to biodiversity and ecosystem services in the Maldives in terms of direct livelihoods to island communities. It provides direct income to 15-20 % of the population. Fisheries sector policies and strategies with relevance to biodiversity are described in the draft fisheries masterplan (*draft MASPLAN 2018, not finalized and not to be quoted*) and the Maldives Fisheries Policy (2017) documents.

In terms of Fisheries Policy and Governance, the following are highlighted as issues to be addressed:

- Address resources use conflicts between tourism and fisheries (mainly related to coral reef biodiversity and Oceanic fisheries biodiversity) through more productive discussions between line ministries/departments/agencies
- Licensing of all fishing vessels engaged in fisheries
- Implement regulations for better management of bait fisheries
- Better enforcement of existing fisheries sector regulations and address issues between various fisheries through better regulations and enforcement
- Increased awareness raising programs for fishers regarding sustainable fisheries management

The strategic vision and goals of the fisheries sector identified policies and strategies that will help the Maldives achieve

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biodiversity strategies.

The fisheries sector policies undertake to continue to develop the tuna fishery using environmentally friendly fishing methods with responsible measures to manage and conserve the fisheries. The Plan emphasizes the need to develop an “atoll based fishery management system” which is in line with the conservation policies of the MEE. The plan also undertakes to seek third party certification of the major reef fisheries, aquaculture development both with the overall objective of fisheries sustainability and biodiversity conservation.

Detailed activities of the fisheries sector (as pledged in the draft fisheries Masterplan supporting the NBSAP includes the following activities:

A) Oceanic fisheries

- Improvement of the regulatory mechanism by strengthening the Monitoring Control and Surveillance (MCS) system of oceanic fisheries
- Establishment of oceanic fisheries resources management training program
- Establishment of fisheries co-management of oceanic fisheries
- Improvement of the catch data collection for by-catch
- Technical development and examination of live bait catch and holding for improving their survival rate
- Technical development on the mitigation measures of shark by-catches in longline fishing

B) Reef fisheries

- Improvement of biological, socio-economic and statistical catch data collection and analysis systems
- Improvement and strengthen fisheries-related legislation
- Enhancement of fisheries compliance/ enforcement
- Design and implementation of fishery management plans
- Capacity enhancement of stakeholders on marine resource and environmental management
- Establishment of atoll-based reef fisheries management system (ABRFMS)

C) Aquaculture

- Formulation of master plan of Aquaculture Sub-sector
- Strengthening Ministry of Fisheries, Marine Resources and Agriculture's capacity for aquaculture training,

demonstration and extension

National Target(s)

13. By 2020 all major fishery, including aquaculture and mariculture are managed and harvested sustainably

Assessment of the effectiveness of the implementation measure taken in achieving desired outcomes

Measure taken has been partially effective

Gear buy back program for shark long line fishermen

Measures taken to contribute to the implementation of your country's national biodiversity strategy and action plan

Shark fishing was becoming an unsustainable fishery at national level. Sharks were mainly caught for shark fins which were exported with a high value. Longline fishery was banned in the Maldives in 2012 and all the gear used by longline fishermen were bought by the government. In addition to gear buy back programs were conducted to provided alternative livelihood activities for fishermen who lost work due to the banning of the fishery. This is a clear example of a case whereby long term biodiversity objectives were achieved through incentives and convincing arguments to stop the a destructive fishery with adverse impacts on ecosystems. The banning of the shark fishing also helped achieve objectives of multilateral initiatives.

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National Target(s)

16. By 2020 at the latest, positive incentives for conservation and sustainable use of biodiversity are developed and applied

Assessment of the effectiveness of the implementation measure taken in achieving desired outcomes

Measure taken has been effective

Other relevant information

- shark fishery conservation reports.

- reports on the gear buy back program of the ministry.

- shark monitoring reports of the marine research center.

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Strengthening and regulating Environmental Impact Assessments

Measures taken to contribute to the implementation of your country's national biodiversity strategy and action plan

Environmental Impact Assessments are measures designed to minimise the pressures and impacts of developmental activities on coral reefs. The Maldives has had regulations on environmental impacts assessments since the Environment Law of 1993. The revised and streamlined EIA regulations of 2012 were designed to address specific biodiversity issues and protection and conservation of coral reefs and pressures on coral reefs. Biodiversity forms a significant component of the scope of EIA studies and due attention is given to assess the impact on ecosystems, particularly sensitive ecosystems. The EIA process also provides a good baseline of biodiversity resources in the Maldives. penalising

EN

National Target(s)

17. By 2025 pressures on coral reefs and other vulnerable ecosystems due to anthropogenic activities and climate change are minimised

Assessment of the effectiveness of the implementation measure taken in achieving desired outcomes

Measure taken has been partially effective

tools or methodology used for the assessment of effectiveness above

Development on coral reefs are directly related to the 2 major economic activities in the Maldives: fishing and tourism. Both are critical for national development in terms of jobs, income and livelihoods. They are also the only resources which contribute to the economy in terms of GDP contributions and economic development. Short term politically driven development had undermined the EIA regulations in many situations recently. The effectiveness of this measure can be monitored fully through the regulatory measures in place for the implementation of the EIA regulations. EN

Relevant websites, links, and files

EIA_Regulation_2012-(Unoffical translation-Eng).pdf (Biodiversity Aichi Target 10)

Other relevant information

- Number of actions taken by EPA on EIA breaches

- Number of projects that has been stopped due to adverse impacts on sensitives coral reefs and other ecosystems.

- EN

Obstacles and scientific and technical needs related to the measure taken

Study on inadequacies of the EIA process. Since this analysis many improvement has been brought to the process. EN

Relevant websites, web links and files

Inadequacies in EIA regulations implementation_shahida_zubair.pdf (Aichi Target 10)
EIA appraisal_Developing and evaluating environmental impact assessment systems for small developing countries.pdf (Aichi Target 10)

Protected Areas

Measures taken to contribute to the implementation of your country's national biodiversity strategy and action plan

The protection representative habitat types of coral reefs has been a long term objective of the government of the Maldives as defined in many policy documents. The overarching objective was to establish a Protected Areas system in the Maldives that provides adequate protection to terrestrial, marine, and mangrove ecosystems threatened species of coral reefs.

In order to prevent over exploitation, and improve conservation and preservation, Marine Protected Areas (MPAs) were first established in the Maldives in 1995 under the EPPA 4/93. The Government designated 14 MPAs as the country's first in 1995. A further 11 areas were declared in 1999. These initial sites were established at the request of the tourism industry for the explicit purpose of dive tourism. Other reasons for protection include banning export of important baitfish as aquarium fish; banning fishing from the 'house' reefs of tourist resorts; and the protection of threatened marine species such as sharks, sea turtles, giant clams, and black coral.

There are currently 50 legally protected coral reef areas totaling more than 27,674 hectares (277 sq km) representing 6% of the total coral reef area of the Maldives. These sites are designated under the Environment Protection and Preservation Act 4/93 (EPPA 4/93).

In keeping with national biodiversity objectives and to further strengthen and facilitate the continued protection of coral reefs sites, the Environmental Protection Agency (EPA) has developed a 'Sensitive Areas List' of 274 environmentally significant areas. These areas are given careful consideration to ensure that no or minimal developmental practices are allowed within them. Further consideration could lead to assigning such areas as fully protected sites under the law.

EN

National Target(s)

18. By 2025, at least 10% of coral reef area, 20% of wetlands and mangroves and at least one sand bank and one uninhabited island from each atoll are under some form of protection and management

Assessment of the effectiveness of the implementation measure taken in achieving desired outcomes

Measure taken has been partially effective

tools or methodology used for the assessment of effectiveness above

- Lack of capacity to manage protected area at atoll and level is a major hurdle in managing protected areas
- Lack of supporting law and regulations
- Lack of trained manpower and financial resources

EN

Relevant websites, links, and files

Protected Areas list _2019.pdf
Protected Areas.pdf (Protected Areas Map)
Sensitive Environments.pdf (Environmentally Sensitive Areas Map)

Restoration of coral reef habitats, mangroves and ground water aquifers

Measures taken to contribute to the implementation of your country's national biodiversity strategy and action plan

Restoration and rehabilitation of coral habitats and mangroves have been attempted through government and private sector efforts. A national coral reef monitoring framework with ecosystems based protocols have been developed to gather data on affected reef habitats in atolls. Programs are in place and ongoing to rehabilitate and restore over exploited water resources through alternative water sources to the affected island communities so that ground water resources can be restored. The overall outcome of these initiatives are increase in resilience of coral reefs and associated habitats.

EN

National Target(s)

19. By 2025, impacted ecosystems that provide essential services related to water, human health, wellbeing and livelihood are

restored significantly

Assessment of the effectiveness of the implementation measure taken in achieving desired outcomes

Measure taken has been partially effective

Implementation of Environmental Impact Assessments to identify, measure and minimise habitat loss

Measures taken to contribute to the implementation of your country's national biodiversity strategy and action plan

Development projects on coral reefs have been a major driver of natural habitat loss in the Maldives. Environmental Impact Assessments provided the means and tools to identify sensitive habitats, measure the impacts on habitats and take measures to minimise habitat loss during developments on coral reefs. The Maldives has implemented a legally driven EIA process for more than 20 years. The EIA process has been revised in 2012 and address biodiversity loss in terms to habitats and species. These EIA reports are under review to assess long term trends in habitat loss and mapping impacts.

EN

National Target(s)

20. By 2025 rate of loss of all natural habitats are identified and where rate of loss is high, the rate of loss is at least halved or where feasible, brought close to zero

Assessment of the effectiveness of the implementation measure taken in achieving desired outcomes

Measure taken has been partially effective

tools or methodology used for the assessment of effectiveness above

- Often developmental pressures have been too high for EIA process to have any positive outocome on habitat loss
- EIA methodology guideline (to be obtained from EPA and inserted)

EN

Relevant websites, links, and files

EIA_Regulation_2012-(Unoffical translation-Eng).pdf (EIA regulation)

Protection of threatened species

Measures taken to contribute to the implementation of your country's national biodiversity strategy and action plan

Since the Maldives ratified the CBD, 103 bird species and 13 marine species have been declared protected under the EPPA 4/93. The government designated *Kanzu Kahanbu*, the Maldivian black turtle (*Melanochelys trijuga thermalis)* as a protected species in the Maldives on 22 May 2003. On 23 August 2013, the government designated 33 birds as protected species. On 9 June 2014 the government declared Batoidea, a superorder of cartilaginous fish commonly known as rays and skates, as protected in Maldivian waters. The capture, killing, injuring, and sale of all species belonging to Batoidea is therefore illegal in the Maldives.

Maldives imposed a 10-year moratorium on catching or harming of turtles in 1995. The moratorium was renewed in 2006 extending further 10 years with ban on egg harvesting from 14 islands identified to be nesting hotspots. Turtles are legally now a protected species in the Maldives.

All types of corals are banned from harvest and export in the Maldives.

Shark fishing is banned in Maldivian waters including its EEZ. The ban has been effective from May 2010. However, with the introduction of longline fishing between 100 nm to 200 nm in the EEZ of Maldives, there is a possibility of shark by-catch. Provisions are in place under the Regulation on Fishing and Export of Large Yellowfin Tuna to minimise the by-catch of sharks in adherence to Indian Ocean Tuna Commission (IOTC) Resolution 05/05. The Regulation requires shark by-catch to be reported, released if alive, and landed intact to be destroyed if dead. Currently 14 longline vessels are in operation in Maldivian EEZ. Majority of the sharks caught as by-catch are released with minor to no damage.

EN

National Target(s)

21. By 2020, prevent extinction of locally known threatened species.

Assessment of the effectiveness of the implementation measure taken in achieving desired outcomes

Measure taken has been effective

Relevant websites, web links and files

Maldives National Report to IOTC 2018

Trade regulation of locally protected species

Measures taken to contribute to the implementation of your country's national biodiversity strategy and action plan

Laws and regulations are in place to control trade, export and import of locally known threatened and protected species. The ministries of Trade, Fisheries and Agriculture and the Ministry of Environment coordinate the control of trade regarding protected species.

EN

National Target(s)

4. By 2025 government, businesses and stakeholders at all levels have taken steps to achieve or have implemented plans for sustainable production and consumption and have kept the impacts of use of natural resources well within safe ecological limits

Assessment of the effectiveness of the implementation measure taken in achieving desired outcomes

Measure taken has been partially effective

tools or methodology used for the assessment of effectiveness above

Mandate conflicts between coordinating ministries for the regulation of trade in protected species have undesirable outcomes. Lack of timely decisions on monitoring and legal action on trade of locally protected species is hampering the proper enforcement of regulations. Spot checks from the EPA identifies illegal trade issues but preventive action requires the removal of conflicting mandates and reviewing regulations.	EN

Other relevant information

Efforts in reviewing mandate conflicts between the Ministry of Environment and Ministry of Economic Development Efforts in reviewing mandate and regulatory conflicts between Ministry of Environment and Ministry of Fisheries, Marine Resources and Agriculture	EN

Sewage and water networks and waste mangement centers.

Measures taken to contribute to the implementation of your country’s national biodiversity strategy and action plan

The waste management policy of the government is designed to address pollution of the marine and terrestrial environment. To date 157 islands have waste management centers out of 187 inhabited islands. In the future these waste management centers are expected to be served by regional waste processing centers and recycling facilities. Every island is required to formulate and implement a waste management plan under the policy. The waste management measures are designed to address waste and pollution on islands. The policy is driven by a comprehensive waste management regulation. Similarly water and wastewater issues on inhabited islands are dealt under the water resources management policy. Water and sewerage networks are now installed on 99 islands. The networks are designed to reduce pollution and contamination of groundwater and surrounding nearshore waters significantly.	EN

National Target(s)

23. By 2020 pollution from waste and sewage has been brought to levels that are not detrimental to ecosystem functions and biodiversity

Assessment of the effectiveness of the implementation measure taken in achieving desired outcomes

Measure taken has been partially effective

tools or methodology used for the assessment of effectiveness above

The sources of pollutants in terrestrial and marine environment are scattered over 187 inhabited islands. Finance and logistics remain the main development constraint to address waste, wastewater, ground water contamination on individual islands. The policy measures in place to reduce pollution to levels that are not detrimental to ecosystem function and services across the the whole archipelago and its reef system will require financial resources and time. EN

Relevant websites, links, and files

National Water and Sewerage Policy
National Waste Management Policy

Development of a National Geographic Information System for Environmental data including habitat data

Measures taken to contribute to the implementation of your country's national biodiversity strategy and action plan

- The development of a national GIS
- The development of a National Coral Reef Monitoring framework
- Sensitive area list
- Atolls of Maldives
- LaCRED maps of Laamu

EN

- Baa Atoll mapping by Adrefouet et al (MEMP)

National Target(s)

25. By 2025 national data system on the status of key ecosystems, species and genetic diversity are in place and science based technologies related to biodiversity are improved, shared and transferred

Assessment of the effectiveness of the implementation measure taken in achieving desired outcomes

Measure taken has been partially effective

tools or methodology used for the assessment of effectiveness above

- Lack of coordination between relevant government institutions

EN

Allocation of financial resources to implement the NBSAP

Measures taken to contribute to the implementation of your country's national biodiversity strategy and action plan

The UNDP/GEF funded Atoll Ecosystem Conservation (AEC) project From 2005 to 2012, culminated in the set up of the Baa Atoll Biosphere Reserve. The AEC project aimed to pilot a system for integrated conservation and sustainable development in Baa Atoll, which could then serve as a model for other atolls. A three-pronged strategy was followed which led to: integrating biodiversity conservation into institutions and policies at both national and atoll level; conserving biodiversity 'in the water and on the ground' by establishing protected and managed areas and managing them through innovative national-local and public-private partnerships in Baa Atoll; and by supporting alternative sustainable livelihood development strategies to relieve pressure on biodiversity.

EN

The AEC project created the Baa Atoll Conservation Fund through an innovative Public Private Partnership with the tourism sector that provides financial resources for management of the Biosphere Reserve, as well as grants for conservation, livelihoods and outreach activities.

The Government of the Maldives started collecting green tax from tourists visiting the Maldives at the rate of 6US$ per person per day for tourists staying at resorts and $US3 per person for tourists staying at guest houses. Revenue from green tax was meant to be used to reduce the environmental footprint and in mitigation of environmental impacts and promote sustainability and biodiversity conservation. Over the past 4 years the government has earned approximately 89 million US$ as income from the Green Tax, which the government claims to have been used to fund water resources management and waste management with direct benefits for biodiversity conservation and improvement.

The Government has set up a protected area in Addu Atoll where rich marine and terrestrial habitats and flora and fauna have been protected and preserved. The park will be the first of its kind to introduce user pay schemes for terrestrial parks to manage biodiversity through protected areas. Hanifaru Bay in Baa Atoll Biosphere reserve already charges user fees for entering the bay to watch manta rays.

National Target(s)

26. By 2025 innovative financing mechanisms for biodiversity conservation are established.

Assessment of the effectiveness of the implementation measure taken in achieving desired outcomes

Measure taken has been partially effective

tools or methodology used for the assessment of effectiveness above

While the income generated from user fees in protected areas is directed accounted for conservation of biodiversity, the green tax collected from the tourists are not immediately accounted for conservation work. With more transparency the green tax can be utilised as a significant source of funds for the implementation of the NBSAP.

EN

Other relevant information

- Funds disbursement for biodiversity conservation from the Baa Atoll Conservation Fund
- The promotion of Baa Atoll Biosphere Reserve by resorts operating in Baa Atoll generates income
- The setup of water and sewage networks in islands and waste management

EN

Obstacles and scientific and technical needs related to the measure taken

- issues relating to the Green Tax.

EN

Green Fund and Green Tax

Measures taken to contribute to the implementation of your country's national biodiversity strategy and action plan

Under the sixth amendment to the Maldives Tourism Act, green tax is imposed on tourist resorts, tourist hotels, tourist vessels and guest houses. For tourists staying in resorts, hotels and vessels, USD 6 is collected per day as green tax and for tourists staying in guest houses USD 3 per day is collected. Maldives Inland Revenue Authority has established guidelines on imposing and collection of green tax from tourists.

The revenue sourced from green tax goes into a trust fund known as 'green fund' which funds projects to solve environmental issues in Maldives.

EN

Relevant websites, links, and files

Maldives Green Tax Guide

Biodiversity Conservation in the Tourism Sector: Other Effective Area Based Conservation Measures

Measures taken to contribute to the implementation of your country’s national biodiversity strategy and action plan

The country's beautiful natural environment (beach and underwater beauty) is the main attraction of Maldives according to Maldives Visitors survey conducted in 2018. Whale shark watching in South Ari Marine Protected Area and visiting Baa Atoll Biosphere Reserve's Hanifaru Bay for manta rays are among the most popular sites to visit by tourists.

Of the 1192 islands in Maldives, 141 islands are tourist resorts following the concept "one island, one resort". With its exclusive resorts, Maldives is one of the world's ultimate luxury destinations with an industry that welcomes about a million visitors per year.

Tourism sector is predominantly dependent on the biodiversity of the country and is a major contributor to GDP as well as contributes over 90% of government revenue through tourism related taxes. Due to the importance of natural environment and biodiversity to the tourism sector, the conservation and management of the resort's environment have been given a high priority. Under Maldives Tourism Act (law No. 2/ 99) and Regulation of the Protection and Conservation of Environment in the Tourism Industry (2006), the resort house reefs and the surrounding marine environment are managed. Most of the resorts conduct conservation programmes and have marine biologists among their staff. Because of the management measures for these areas, the resort house reefs are considered under Other Effective Area Based Conservation Measures.

EN

National Target(s)

18. By 2025, at least 10% of coral reef area, 20% of wetlands and mangroves and at least one sand bank and one uninhabited island from each atoll are under some form of protection and management
19. By 2025, impacted ecosystems that provide essential services related to water, human health, wellbeing and livelihood are restored significantly
20. By 2025 rate of loss of all natural habitats are identified and where rate of loss is high, the rate of loss is at least halved or where feasible, brought close to zero
23. By 2020 pollution from waste and sewage has been brought to levels that are not detrimental to ecosystem functions and biodiversity

Assessment of the effectiveness of the implementation measure taken in achieving desired outcomes

Measure taken has been effective

Relevant websites, links, and files

Maldives Visitor Survey 2018
List of islands leased for resorts in Maldives_list of managed reef areas (OECM)
Environmental Guidelines for Tourist Resort Development & Operation in the Maldives

Other relevant website address or attached documents

Ministry of Tourism

Coral Bleaching Response Plan

Measures taken to contribute to the implementation of your country's national biodiversity strategy and action plan

In 2016, Maldives experienced a major coral bleaching event, second of such since the first recorded nationwide coral bleaching event of 1998. To formulate response measures to coral bleaching, an Interagency Task Force was established. To guide the task force members and partners in detecting, assessing and responding to coral bleaching events in Maldives, the Coral Bleaching Response Plan was developed. EN

National Target(s)

17. By 2025 pressures on coral reefs and other vulnerable ecosystems due to anthropogenic activities and climate change are minimised
19. By 2025, impacted ecosystems that provide essential services related to water, human health, wellbeing and livelihood are restored significantly

Assessment of the effectiveness of the implementation measure taken in achieving desired outcomes

Measure taken has been partially effective

Relevant websites, links, and files

Inter Agency Task Force on Coral Bleaching

Maldives Coral Bleaching Response Plan
Status of Coral Bleaching in the Maldives 2016

Maldives Conservation Portal

Measures taken to contribute to the implementation of your country's national biodiversity strategy and action plan

The Maldives Conservation Portal is an open-access, public resource for conservation science in the Maldives. The portal acts as a centralized platform that includes all research and conservation activities run in the country, and one that brings together projects promoted by governmental and non-governmental agencies. Through this portal, all citizens can learn how to become actively involved in marine conservation in the Maldives, and can have an understanding of how the information is used to improve management strategies of natural resources. EN

National Target(s)

25. By 2025 national data system on the status of key ecosystems, species and genetic diversity are in place and science based technologies related to biodiversity are improved, shared and transferred

Assessment of the effectiveness of the implementation measure taken in achieving desired outcomes

Measure taken has been partially effective

tools or methodology used for the assessment of effectiveness above

The conservation portal needs to be updated with new information. EN

Relevant websites, links, and files

Maldives Conservation Portal

Green Fins Initiative

Measures taken to contribute to the implementation of your country's national biodiversity strategy and action plan

Green Fins was originally initiated by UNEP under the Regional Seas programme as part of the effort to increase public awareness and management practices that will benefit the conservation of coral reefs and reduce unsustainable tourism practices. It is overseen by the Coral Reef Unit of UNEP based in Bangkok in collaboration with Reef-World. Green Fins is a comprehensive approach that encourages dive centres and snorkel operators, local communities and governments to work together to reduce their environmental impacts. This is primarily done through the private sector adopting a Code of Conduct that will help mitigate their impacts when carrying out marine tourism activities. The Green Fins certification is common in Maldives. EN

National Target(s)

16. By 2020 at the latest, positive incentives for conservation and sustainable use of biodiversity are developed and applied
5. By 2025 people are aware of the value of biodiversity and the steps they can take to conserve and use it sustainably

Assessment of the effectiveness of the implementation measure taken in achieving desired outcomes

Measure taken has been effective

Relevant websites, links, and files

Green Fins/ Maldives

Protection of birds

Measures taken to contribute to the implementation of your country's national biodiversity strategy and action plan

Over 167 bird species have been recorded in the Maldives including seabirds, shorebirds and terrestrial birds. Five subspecies of bird have been identified as endemic to the Maldives. The bird subspecies endemic EN

to the Maldives are Maldivian pond heron (*Ardeola graii phillipsi),* Maldivian little heron *(Butorides striatus albidulus),* central Maldivian little heron *(Butorides striatus didii phillipsi),* Maldivian water hen *(Amouronis phoenicurus maldivus)* and Asian koel *(Eudynamys scolopacea scolpacea).*

To protect and conserve birds, 103 bird species have been declared as protected under Environment Protection and Preservation Act of Maldives. In addition to this pursuant to Migratory Birds Regulation of Maldives, all species of migratory birds are protected by prohibiting capture.

National Target(s)

21. By 2020, prevent extinction of locally known threatened species.

Assessment of the effectiveness of the implementation measure taken in achieving desired outcomes

Measure taken has been effective

Other relevant website address or attached documents

Protected Birds of Maldives

Climate Change Adaptation and Mitigation

Measures taken to contribute to the implementation of your country's national biodiversity strategy and action plan

One of the major threats to biodiversity conservation in Maldives is global climate change. This is not something that can be addressed at a local level and global action is needed. The Government of Maldives has taken several measures against climate change. Climate change adaptation and mitigation has been adopted into sectoral planning and development, where Maldives Climate Change Policy Framework is the key policy document. In the Nationally Determined Contributions to Paris Agreement, Maldives has committed to reduce green house gas emissions by 2030 with 10% to be reduced unconditionally and 24% conditionally with international support including financial support, capacity building and technology transfer.

EN

National Target(s)

17. By 2025 pressures on coral reefs and other vulnerable ecosystems due to anthropogenic activities and climate change are minimised

Assessment of the effectiveness of the implementation measure taken in achieving desired outcomes

Measure taken has been partially effective

tools or methodology used for the assessment of effectiveness above

Maldives remains vulnerable to the impacts of climate change. As such coral bleaching, beach erosion remains challenging. EN

Other relevant website address or attached documents

Maldives Climate Change Policy Framework
Maldives Nationally Determined Contributions

Protection of Cetaceans and Elasmobrachs

Measures taken to contribute to the implementation of your country's national biodiversity strategy and action plan

Maldivian waters have high diversity of cetaceans with 20 different species identified from sightings. All species of whales and dolphins have been declared protected in Maldives.

There are 40 species of sharks recorded in Maldives and all are protected. In 2010, shark fishery was banned in Maldives and now Maldivian waters are considered a shark sanctuary. The whale shark is the largest shark in the ocean and be seen year round in some areas of Maldives. Whale shark is also declared as protected.

All species of skates and rays are protected in Maldives. There are about 16 species known in Maldives and all species are protected. EN

National Target(s)

21. By 2020, prevent extinction of locally known threatened species.

Assessment of the effectiveness of the implementation measure taken in achieving desired outcomes

Measure taken has been effective

Relevant websites, links, and files

Sharks National Plan of Action
Maldivian Whale Shark Tourist Encounter Guidelines

Baa Atoll UNESCO Biosphere Reserve

Measures taken to contribute to the implementation of your country's national biodiversity strategy and action plan

On 28 June 2011, United Nations Educational Scientific and Cultural Organization (UNESCO) declared the whole of South Maalhosmadulu (Baa Atoll) as a World Biosphere Reserve. The designation of Baa Atoll as a World Biosphere Reserve demonstrates the global significance of the atoll type coral reef area and the commitment of local people to manage it sustainably for the future.

The Baa Atoll Conservation Programme (BACP) is the biodiversity conservation program for the Biosphere Reserve. It encompasses all the islands, waters and resources (biological and non-biological) of Baa Atoll with an outer perimeter that extends one nautical mile from the outer reef zone of the atoll. The BACP has been developed through a comprehensive stakeholder consultative process and is being implemented in line with the Ecosystem Approach of the CBD. This is a strategy for the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way'. The long term goal of the BACP is to ensure the ecosystem and all resources of Baa Atoll remain healthy, productive and resilient into the future.

EN

Through an intensive stakeholder consultative process it was agreed to adopt and utilize the UNESCO protocols for a World Biosphere Reserve to develop the zonation strategy for the BACP. The BACP is a multiple use marine and terrestrial area that provides for a wide range of anthropogenic uses (e.g. commercial, artisanal, subsistence, recreational and tourism) and is based on an overriding conservation objective to ensure long term ecological sustainability. Therefore, the atoll and its biological and non-biological resources are protected and managed through a zonation system that provides for different uses and activities to be undertaken in the different zones whilst minimizing detrimental threats and user conflicts. The BACP also provides mechanisms that actively support the development of sustainable livelihoods.

The development of the Baa Atoll zonation system included a combination of biological knowledge (scientific and anecdotal) and stakeholder (community, government and private sector) involvement. The zonation system like the BACP is a 'living' system and requires regular evaluations and modifications to ensure that long-term objectives are met. The zonation system developed for Baa Atoll has adopted the UNESCO World Biosphere Reserve zonation criteria and protocols. This includes a three-tiered zonation approach which includes core zones, buffer zones and transition zones.

A conservation fund has been established to fund conservation, livelihood and education programmes. The revenue for conservation fund comes from access permit sales to core areas (eg: Hanifaru Bay tickets to watch manta rays) and annual contribution from resorts.

National Target(s)

18. By 2025, at least 10% of coral reef area, 20% of wetlands and mangroves and at least one sand bank and one uninhabited island from each atoll are under some form of protection and management
19. By 2025, impacted ecosystems that provide essential services related to water, human health, wellbeing and livelihood are restored significantly
21. By 2020, prevent extinction of locally known threatened species.
26. By 2025 innovative financing mechanisms for biodiversity conservation are established.

Assessment of the effectiveness of the implementation measure taken in achieving desired outcomes

Measure taken has been effective

tools or methodology used for the assessment of effectiveness above

Baa Atoll Hanifaru Bay number of visitors

Small grants awarded under Baa Atoll Conservation Fund

EN

Relevant websites, links, and files

Baa Atoll Biosphere Reserve Office
Small Grants Awarded under BACF

Management of ecosystems through ecotourism

Measures taken to contribute to the implementation of your country's national biodiversity strategy and action plan

A recent project known as "Maldives Climate Change Adaptation Project" focused on the southernmost two atolls of Maldives, Addu and Fuvahmulah was implemented by Ministry of Environment. In the wetland conservation component, the protected areas of Addu and Fuvahmulah were developed with infrastructure including visitors centre, recreation facilities and board walks, with the implementation of other sustainable activities that promote socio-economic development of the atoll communities. The wetlands of both atolls are ecologically diverse and unique.

In Addu a vast array of birds, and terrestrial diversity is observed while there are ruins and infrastructure used by British during World War II at the site making it historically significant as well. The coral reef structure of the protected area in Addu is also rich in marine biodiversity and snorkeling is a favorite of many visitors. In Fuvahmulah, the open water bodies, marches and shrubby forest are ecologically diverse and control flooding of the island during heavy rainfall. As mat weaving by using reed found in Fuvahmulah wetland was a historical activity in Fuvahmulah. This lost art was revived through the project providing livelihood opportunities for many, where the completed mats are sold at the ecotourism facilities in Fuvahmulah.

In both Fuvahmulah and Addu local as well as foreign visitors purchase tickets to visit the nature parks. These two areas are

EN

successful examples of wetland management and eco tourism in Maldives. The facilities are managed by individual protected area units established in both atolls with protected area managers and rangers.

National Target(s)

1. By 2020 governance on biodiversity conservation is strengthened at local and national level
17. By 2025 pressures on coral reefs and other vulnerable ecosystems due to anthropogenic activities and climate change are minimised
18. By 2025, at least 10% of coral reef area, 20% of wetlands and mangroves and at least one sand bank and one uninhabited island from each atoll are under some form of protection and management
19. By 2025, impacted ecosystems that provide essential services related to water, human health, wellbeing and livelihood are restored significantly

Assessment of the effectiveness of the implementation measure taken in achieving desired outcomes

Measure taken has been effective

tools or methodology used for the assessment of effectiveness above

Visitors to Addu and Fuvahmulah Nature Park

Addu and Fuvahmulah Nature Park Management Plans

EN

Relevant websites, links, and files

Addu Nature Park
Fuvahmulah Nature Park

Strengthening Low-Carbon Energy Island Strategies

Measures taken to contribute to the implementation of your country's national biodiversity strategy and action plan

This is a project implemented by Ministry of Environment with the objective to mainstream energy efficiency measures into policies, guidelines, standards and building practices in the Maldives and to achieve a substantial reduction of GHG emissions as a result of improved buildings and building management practices and to leverage substantial investment in activities leading to increased energy efficiency

EN

National Target(s)

16. By 2020 at the latest, positive incentives for conservation and sustainable use of biodiversity are developed and applied

Assessment of the effectiveness of the implementation measure taken in achieving desired outcomes

Measure taken has been partially effective

tools or methodology used for the assessment of effectiveness above

The project is still at implementation stage and the energy sector of Maldives is predominantly dependent on burning fossil fuels.

EN

Relevant websites, links, and files

Strengthening Low Carbon Energy Island Strategies

Accelerating Private Investments in Renewable Energy (ASPIRE)

Measures taken to contribute to the implementation of your country's national biodiversity strategy and action plan

This is an ongoing project implemented by the Ministry of Environment with the aim to facilitate private investments in renewable energy in order to increase the share of renewable energy in the electricity generation mix on the Maldivian islands.

The programme sets three main objectives:

EN

- build-up a structure to facilitate private investment in renewable energy, including solar photo-voltaics (PV), wind, waste, and other renewable energy technologies;
- formulation of an energy integration plan for greater Male' region maximizing the use of renewable energy,
- capacity building in PV technology.

National Target(s)

16. By 2020 at the latest, positive incentives for conservation and sustainable use of biodiversity are developed and applied

Assessment of the effectiveness of the implementation measure taken in achieving desired outcomes

Measure taken has been partially effective

tools or methodology used for the assessment of effectiveness above

This is an ongoing project with the objectives yet to be realized. EN

Relevant websites, links, and files

ASPIRE Project

Species Protection Projects

Measures taken to contribute to the implementation of your country's national biodiversity strategy and action plan

There are a number of conservation projects targeted at key species in Maldives. Below are some of the high profile projects:

- The Olive Ridley project with a marine turtle rescue centre, rehabilitates ill and injured turtles entangled in ghost nets. The mission of Olive Ridley Project is to remove ghost nets from the ocean, rescue and rehabilitate injured sea turtles, reuse and reduce marine debris, and educate the world about the danger of ghost nets and the perilous situation of sea turtles. EN

- Maldives Manta Project by Manta Trust is working on conservation of manta rays by utilizing a country wide network of professionals. They collect data on manta population, its movements, and how the environment and tourism / human interactions affect them.

- Maldives Whale Shark Research Programme conducts whale shark research as well as community focused conservation initiatives in Maldives. Their aim is to understand the population dynamics of the whale sharks in Maldives and their relationship with whale sharks existence globally.

National Target(s)

21. By 2020, prevent extinction of locally known threatened species.

Assessment of the effectiveness of the implementation measure taken in achieving desired outcomes

Measure taken has been effective

tools or methodology used for the assessment of effectiveness above

Number of turtles rescued, rehabilitated and released

Data collected on mantas that drive conservation measures

Data on whale shark behavior to help in managing the species and its habitat

EN

Relevant websites, links, and files

Olive Ridley Project
Maldives Manta Ray Project
Maldives Whale Shark Research Programme

Fourth Tourism Masterplan

Measures taken to contribute to the implementation of your country’s national biodiversity strategy and action plan

The Fourth Tourism Masterplan was formulated on the basis of the fact that the tourism industry of Maldives is dependent on the conservation of nature and a wholesome environment. The strategies and actions relevant and specific to biodiversity conservation are: **Strategy 2.1. Improving waste management practices of local communities.** Action 2.1.1. Assist inhabited islands near resorts to establish a self sustaining waste management system. Action 2.1.2. Support government in establishing a proper waste management system on Thilafushi island. Action 2.1.3. Work with local councils to establish proper waste management facilities in selected inhabited islands for live-aboard vessels. **Strategy 2.2.Developing and enforcing management plans for sensitive environments.** Action 2.2.1. Develop management plans for marine protected areas and designated sensitive environments. Action 2.2.2 Establish a Tourism Planning Committee at national level with a mandate to assist the preparation and enforcement of MPA management plans and to settle grievances over natural resource use involving the tourism sector. **Strategy 2.3. Establish marine managed areas in resort house reefs.** Action 2.3.1. Help to drive the 'biosphere reserve programme' by setting up marine reserves within house reefs or boundaries of resorts. **Strategy 2.4. Implementing responsible visitor programmes.** Action 2.4.1 Implement a 'responsible visitor programme', combining environmental and marketing motives.	EN

Strategy 2.5. Implementing climate change adaptation programme for tourism industry.

Action 2.5.1. Initiate a national programme of long-term climate change adaptation in the tourism sector.

Strategy 2.6. Implementing a low carbon programme for tourism industry.

Action 2.6.1. Initiate a national low carbon programme for the tourism sector.

Strategy 2.7. Strengthening environmental monitoring for evidence based decision making.

Action 2.7.1. Partnership to strengthen evidence based decision making.

National Target(s)

1. By 2020 governance on biodiversity conservation is strengthened at local and national level
16. By 2020 at the latest, positive incentives for conservation and sustainable use of biodiversity are developed and applied
17. By 2025 pressures on coral reefs and other vulnerable ecosystems due to anthropogenic activities and climate change are minimised

Assessment of the effectiveness of the implementation measure taken in achieving desired outcomes

Measure taken has been effective

tools or methodology used for the assessment of effectiveness above

A number of resorts have pledged on World Tourism Day 2016, to designate an area from their house reefs as protected. The Ministry of Environment has been working closely with Ministry of Tourism and resorts to realize this pledge. Till date ecological surveying of 13 house reefs have been concluded as well as consultative process. A cabinet paper has been formulated and submitted regarding the protection of the designated areas of house reefs from these 13 resorts. Once cabinet approves the protection of these areas, they will be declared as protected under Environment Protection and Preservation Act in a gazette

EN

announcement.

National Coral Reef Monitoring Framework

Measures taken to contribute to the implementation of your country's national biodiversity strategy and action plan

To generate scientific evidence necessary for effective management of corals reefs in Maldives, a National Coral Reef Monitoring Framework has been established in Maldives. An online coral database provides a platform that aims at increasing data collection on natural resources. Monitoring protocols and monitoring sites have already been established. EN

National Target(s)

20. By 2025 rate of loss of all natural habitats are identified and where rate of loss is high, the rate of loss is at least halved or where feasible, brought close to zero
25. By 2025 national data system on the status of key ecosystems, species and genetic diversity are in place and science based technologies related to biodiversity are improved, shared and transferred

Assessment of the effectiveness of the implementation measure taken in achieving desired outcomes

Measure taken has been partially effective

Relevant websites, links, and files

National Coral Database

Good Agricultural Practice Initiative

Measures taken to contribute to the implementation of your country's national biodiversity strategy and action plan

To ensure safe products as well as facilitation of trade through a credible and internationally acceptable Good Agricultural Practice standard and to ensure implementation of the food safety and quality, environmental management, workers health, safety and welfare aspects in agriculture, a project is now being implemented by Ministry of Fisheries, Marine Resources and Agriculture. This project is expected to be an effective step for upgrading and expansion of the agriculture in Maldives.

Under this project, a GAP standard has already been adopted by the Technical Committee and endorsed by the Steering Committee. A series of trainings and awareness programmes have been carried out regarding implementation of GAP standard. As such, workshops have already been conducted in Laamu Atoll with participants from Thaa Atoll, Gnaviyani Atoll and Haa Alif Atoll.

EN

National Target(s)

14. By 2017 fertilisers, insecticides, pesticide, excess nutrient management are sustainably managed
24. By 2025 genetic diversity of cultivated and traditionally used medicinal plants and animals including socioeconomically and culturally valuable species and their associated traditional knowledge is maintained to prevent genetic erosion and safeguard their diversity

Assessment of the effectiveness of the implementation measure taken in achieving desired outcomes

Measure taken has been effective

tools or methodology used for the assessment of effectiveness above

Number of awareness sessions

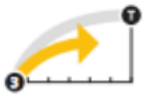
Number of training workshops

GAP Standard

EN

Section III. Assessment of progress towards each national target

1. By 2020 governance on biodiversity conservation is strengthened at local and national level



2018 - Progress towards target but at an insufficient rate

Targets

1. By 2020 governance on biodiversity conservation is strengthened at local and national level	EN

Category of progress towards the implementation of the selected target

Date the assessment was done

08 Oct 2018

Indicators and Activities

Indicator(s)used in this assessment

- Number of officers recruited to work in the atolls in the management of protected areas and biodiversity conservation - National curriculum revised to include biodiversity conservation at all levels of primary and secondary education	EN

Relevant websites, links, and files

Curriculum Framework - National Institute of Education, Maldives

Level of confidence

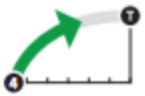
Level of confidence of the above assessment

Based on comprehensive indicator information

Adequacy of monitoring information to support assessment

Monitoring related to this target is adequate

2. By 2020 enforcement of laws and regulations on biodiversity are strengthened



2018 - On track to achieve target

Targets

2. By 2020 enforcement of laws and regulations on biodiversity are strengthened EN

Category of progress towards the implementation of the selected target

Rate of progresses toward the implementation of the selected target

On track to achieve target

Date the assessment was done

09 Oct 2018

Summary of the assessment of progresses toward the implementation of the selected target

- Environmental crime unit
- Environmental police commissioned
- Number of law enforcement personnel trained
- Number of cases addressed

EN

Indicators and Activities

Indicator(s)used in this assessment

- Number of law enforcement officers trained
- Numbers of cases addressed by the Environmental Crime Unit
- Number of successful lawsuits against biodiversity crimes

EN

Level of confidence

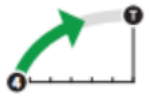
Level of confidence of the above assessment

Based on comprehensive indicator information

Adequacy of monitoring information to support assessment

Monitoring related to this target is partial (e.g. only covering part of the area or issue)

3. By 2025 mainstream biodiversity into island, atoll, sectoral and national plans



2018 - On track to achieve target

Targets

3. By 2025 mainstream biodiversity into island, atoll, sectoral and national plans EN

Category of progress towards the implementation of the selected target

Rate of progresses toward the implementation of the selected target

On track to achieve target

Date the assessment was done

13 Oct 2018

Summary of the assessment of progresses toward the implementation of the selected target

- guidelines developed by the LGA and training and capacity building programs to streamline biodiversity into island development plans

- development of a new masterplan for fisheries development

- development of masterplan for coral reef based tourism development

EN

Indicators and Activities

Indicator(s)used in this assessment

- Number of islands with island development plans incorporating biodiversity and environmental conservation and protection of sensitive habitats

- Number of economic sectors with plans incorporating biodiversity conservation and mangement plans for species

EN

Level of confidence

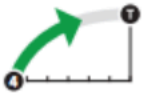
Level of confidence of the above assessment

Based on comprehensive indicator information

Adequacy of monitoring information to support assessment

Monitoring related to this target is adequate

4. By 2025 government, businesses and stakeholders at all levels have taken steps to achieve or have implemented plans for sustainable production and consumption and have kept the impacts of use of natural resources well within safe ecological limits



2018 - On track to achieve target

Targets

4. By 2025 government, businesses and stakeholders at all levels have taken steps to achieve or have implemented plans for sustainable production and consumption and have kept the impacts of use of natural resources well within safe ecological limits	EN

Category of progress towards the implementation of the selected target

Rate of progresses toward the implementation of the selected target

On track to achieve target

Date the assessment was done

14 Oct 2018

Summary of the assessment of progresses toward the implementation of the selected target

- certification schemes are in place for sustainable use of natural resources - Waste management plans and waste management centers are in place for most inhabited islands and Male - work done to introduce Good Agriculture Practices (GAP).	EN

Indicators and Activities

Indicator(s)used in this assessment

- Number of fisheries certified
- Number of farms certified for good agriculture practices
- Reduction in biodegradable wastes
- Number of companies obtaining certification for sustainability

EN

Level of confidence

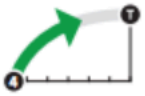
Level of confidence of the above assessment

Based on comprehensive indicator information

Adequacy of monitoring information to support assessment

Monitoring related to this target is adequate

5. By 2025 people are aware of the value of biodiversity and the steps they can take to conserve and use it sustainably



2018 - On track to achieve target

Targets

5. By 2025 people are aware of the value of biodiversity and the steps they can take to conserve and use it sustainably	EN

Category of progress towards the implementation of the selected target

Rate of progresses toward the implementation of the selected target

On track to achieve target

Date the assessment was done

14 Oct 2018

Summary of the assessment of progresses toward the implementation of the selected target

- Education and awareness programs carried out by a number of government and non government organisations have reached 45,000 school children and 1000s of community members (Resort programs, MEE, MOFA, IUCN, LaCRED) - Number of Media programs on televisoion have reached a large corss section of the community (eg '*Anaa buneethee farah*' program on VMedia) - Numerous and increased events on social media including twitter and facebook with specific targeted awareness on coral reef biodiversity and conservation	EN

Indicators and Activities

Indicator(s)used in this assessment

- Number of people reached through different awareness programmes
- Perception survey
- baseline survey
- awareness index

EN

Level of confidence

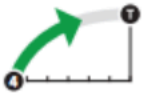
Level of confidence of the above assessment

Based on comprehensive indicator information

Adequacy of monitoring information to support assessment

Monitoring related to this target is adequate

6. By 2025 parliamentarians, judiciary, elected officials and decision makers across government are aware of the significance of including biodiversity conservation in all developmental, social and economic policies, strategies, plans, laws and regulations



2018 - On track to achieve target

Targets

6. By 2025 parliamentarians, judiciary, elected officials and decision makers across government are aware of the significance of including biodiversity conservation in all developmental, social and economic policies, strategies, plans, laws and regulations	EN

Category of progress towards the implementation of the selected target

Rate of progresses toward the implementation of the selected target

On track to achieve target

Date the assessment was done

14 Oct 2018

Summary of the assessment of progresses toward the implementation of the selected target

A conducive environment for science and policy dialogue at higher political levels need to be created for the implementation of this target. Pathways for dialogue is deemed best achieved through engagement of members of Parliament, the Judiciary and Ministers.	EN

Indicators and Activities

Indicator(s)used in this assessment

- No of government officials trained.

- No of MPs, judiciary and elected officials participating in awareness sessions and dialogues

EN

Level of confidence

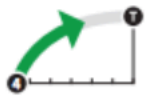
Level of confidence of the above assessment

Based on partial indicator information and expert opinion

Adequacy of monitoring information to support assessment

Monitoring related to this target is adequate

7. By 2020 law enforcement officials are aware of the national laws, regulations and international obligations of Maldives and enforce them to conserve biodiversity



2018 - On track to achieve target

Targets

7. By 2020 law enforcement officials are aware of the national laws, regulations and international obligations of Maldives and enforce them to conserve biodiversity EN

Category of progress towards the implementation of the selected target

Rate of progresses toward the implementation of the selected target

On track to achieve target

Date the assessment was done

15 Oct 2018

Summary of the assessment of progresses toward the implementation of the selected target

- Since 2014, at least 2 training workshops have been held each year for law enforcement officers. More than 300 customs officers have been trained till date. Based on their training they have been able to apprehend consignment of illegal trade in wild life under CITES. EN

Indicators and Activities

Indicator(s)used in this assessment

- Numbers of law enforcement officers who completed training
- Numbers of awareness programs conducted EN

Level of confidence

Level of confidence of the above assessment

Based on comprehensive indicator information

Adequacy of monitoring information to support assessment

Monitoring related to this target is adequate

8. By 2025 the capacity of people including community, CBOs, NGOs, media and different government bodies to manage knowledge and to participate in biodiversity planning is increased

2018 - Progress towards target but at an insufficient rate

Targets

8. By 2025 the capacity of people including community, CBOs, NGOs, media and different government bodies to manage knowledge and to participate in biodiversity planning is increased	EN

Category of progress towards the implementation of the selected target

Rate of progresses toward the implementation of the selected target

Progress towards target but at an insufficient rate

Date the assessment was done

15 Oct 2018

Summary of the assessment of progresses toward the implementation of the selected target

- Capacity need assessment to be conducted to better understand the needs

EN

Indicators and Activities

Indicator(s)used in this assessment

- Capacity building need assessment report completed
- Number of organisation that participate in capacity building programs.
- Number of capacity building programs conducted per year
- Number of NGOs involved in biodiversity conservation

EN

Level of confidence

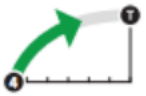
Level of confidence of the above assessment

Based on comprehensive indicator information

Adequacy of monitoring information to support assessment

Monitoring related to this target is adequate

9. By 2018 international trade of endangered species of wild fauna and flora are regulated



2018 - On track to achieve target

Targets

9. By 2018 international trade of endangered species of wild fauna and flora are regulated EN

Category of progress towards the implementation of the selected target

Rate of progresses toward the implementation of the selected target

On track to achieve target

Date the assessment was done

16 Oct 2018

Summary of the assessment of progresses toward the implementation of the selected target

- Number of Customs and other officers trained in the last 3 years by the MEE - These training have been well received by the respective enforcement agencies and they are fully committed to the training programmes.	EN

Indicators and Activities

Indicator(s)used in this assessment

- Number of irregularities reported - Revised laws and regulations - Number of customs and quarantine staff trained - Decrease in number of illegal trade annually - Number of CITES permits and number of noncompliance issues - Number of key species traded identified - Population of each species	EN

Level of confidence

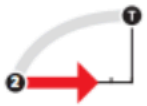
Level of confidence of the above assessment

Based on comprehensive indicator information

Adequacy of monitoring information to support assessment

Monitoring related to this target is adequate

10. By 2018, Cartagena Protocol on Biosafety is implemented in Maldives



2018 - No significant change

Targets

10. By 2018, Cartagena Protocol on Biosafety is implemented in Maldives EN

Category of progress towards the implementation of the selected target

Rate of progresses toward the implementation of the selected target

No significant change

Date the assessment was done

16 Oct 2018

Summary of the assessment of progresses toward the implementation of the selected target

Biosafety regulation drafted and under revision EN

Indicators and Activities

Indicator(s)used in this assessment

- The completed and gazetted regulation on biosafety
- Database on LMO
- Number of people reached through awareness programs. EN

Level of confidence

Level of confidence of the above assessment

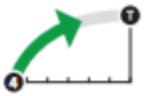
Based on comprehensive indicator information

Adequacy of monitoring information to support assessment

Monitoring related to this target is adequate

11. By 2022 fair and equitable access to genetic resources and associated traditional knowledge, and fair and equitable sharing of benefits

arising from them are regulated



2018 - On track to achieve target

Targets

11. By 2022 fair and equitable access to genetic resources and associated traditional knowledge, and fair and equitable sharing of benefits arising from them are regulated	EN

Category of progress towards the implementation of the selected target

Date the assessment was done

18 Oct 2018

Indicators and Activities

Indicator(s)used in this assessment

- Inventory of genetically important species - Regulation or law or a guideline on Access and Benefit Sharing - Number of cases where benefits are shared	EN

Level of confidence

Level of confidence of the above assessment

Based on comprehensive indicator information

Adequacy of monitoring information to support assessment

Monitoring related to this target is adequate

12. By 2025 invasive alien species pathways are identified and priority species are controlled or eradicated, and measures are in place to manage pathways to prevent their introduction and establishment

2018 - Progress towards target but at an insufficient rate

Targets

12. By 2025 invasive alien species pathways are identified and priority species are controlled or eradicated, and measures are in place to manage pathways to prevent their introduction and establishment EN

Category of progress towards the implementation of the selected target

Rate of progresses toward the implementation of the selected target

Progress towards target but at an insufficient rate

Date the assessment was done

18 Oct 2018

Summary of the assessment of progresses toward the implementation of the selected target

- Strengthening of the Quarantine service and Quarantine Facility.
- Identify and control pathways of introduction of invasive species
- Strengthen and manage bilge water discharges
- Strengthening the capacity of Quarantine and Customs staff in apprehending illegal import of live plants and animals

EN

Indicators and Activities

Indicator(s)used in this assessment

- Database of alien species
- Number of apprehensions of illegal imports of live plants and animals
- Reduction in reports on cases on invasive alien species

EN

Any other tools or means used for assessing progress.

- Encourage research on invasive species
- Monitory scientific studies on invasive species research nationally and regionally
- Monitor reports of invasive species in the Agriculture sector

EN

Level of confidence

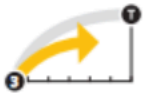
Level of confidence of the above assessment

Based on comprehensive indicator information

Adequacy of monitoring information to support assessment

Monitoring related to this target is adequate

13. By 2020 all major fishery, including aquaculture and mariculture are managed and harvested sustainably



2018 - Progress towards target but at an insufficient rate

Targets

13. By 2020 all major fishery, including aquaculture and mariculture are managed and harvested sustainably EN

Category of progress towards the implementation of the selected target

Rate of progresses toward the implementation of the selected target

Progress towards target but at an insufficient rate

Date the assessment was done

18 Oct 2018

Summary of the assessment of progresses toward the implementation of the selected target

- Revision of the fisheries and aquaculture law delayed
-

EN

Indicators and Activities

Indicator(s)used in this assessment

- Regulation on mariculture - Management plans on; • Reef fishery • Aquarium fishery • Bait fishery • Recreational fishery - Revised fisheries act - Consolidated database for various fisheries - Number of offenses decreased • Number of management plans for major fisheries species - Annual fish catch - Monitoring, Control and Surveillance strategy	EN

Level of confidence

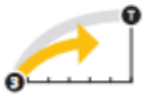
Level of confidence of the above assessment

Based on comprehensive indicator information

Adequacy of monitoring information to support assessment

Monitoring related to this target is adequate

14. By 2017 fertilisers, insecticides, pesticide, excess nutrient management are sustainably managed



2018 - Progress towards target but at an insufficient rate

Targets

14. By 2017 fertilisers, insecticides, pesticide, excess nutrient management are sustainably managed EN

Category of progress towards the implementation of the selected target

Rate of progresses toward the implementation of the selected target

Progress towards target but at an insufficient rate

Date the assessment was done

19 Oct 2018

Summary of the assessment of progresses toward the implementation of the selected target

- legal setbacks on the Pesticide Act which has been drafted and in the legal process. - Chemical regulation? - Bottlenecks due to too many authorities dealing with different chemicals and mandatory conflicts - Positive lists of agro-chemical drawn up by the Ministry of Fisheries and Agriculture is a development forward	EN

Indicators and Activities

Indicator(s)used in this assessment

- Law and Regulations and guidelines on pesticide use formulated and implemented - Number of certifications awarded under Good Agriculture Practices - Number of facilities producing organic fertiliser / composting facilities on islands - Number of awareness programmes and number of participants in each awareness programmes	EN

Any other tools or means used for assessing progress.

Add document links to GAP documents, Draft pesticide act and positive lists for chemicals	EN

Level of confidence

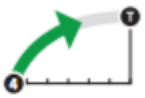
Level of confidence of the above assessment

Based on partial indicator information and expert opinion

Adequacy of monitoring information to support assessment

Monitoring related to this target is adequate

15. By 2017 at the latest, incentives, including subsidies, harmful to biodiversity are eliminated, phased out or reformed in order to minimise or avoid negative impacts



2018 - On track to achieve target

Targets

15. By 2017 at the latest, incentives, including subsidies, harmful to biodiversity are eliminated, phased out or reformed in order to minimise or avoid negative impacts	EN

Category of progress towards the implementation of the selected target

Rate of progresses toward the implementation of the selected target

On track to achieve target

Date the assessment was done

19 Oct 2018

Summary of the assessment of progresses toward the implementation of the selected target

- government budgets have not had harmful subsidies for fishermen and farmers EN

Indicators and Activities

Indicator(s)used in this assessment

- Amount and Number of subsidies and incentives discontinued
- Yearly reduction in import of chemical fertilisers and pesticides
- Harmful subsidies not budgeted by the Parliament

EN

Level of confidence

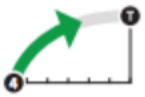
Level of confidence of the above assessment

Based on comprehensive indicator information

Adequacy of monitoring information to support assessment

Monitoring related to this target is adequate

16. By 2020 at the latest, positive incentives for conservation and sustainable use of biodiversity are developed and applied



2018 - On track to achieve target

Targets

16. By 2020 at the latest, positive incentives for conservation and sustainable use of biodiversity are developed and applied EN

Category of progress towards the implementation of the selected target

Rate of progresses toward the implementation of the selected target

On track to achieve target

Date the assessment was done

21 Oct 2018

Summary of the assessment of progresses toward the implementation of the selected target

Unsustainable fisheries practices have been addressed though an incentive scheme where longline fishing gears were bought by the government and discarded.

Programmes are in place for good and responsible farming and fishing practices. Certifications of some fisheries have paved the way for better incentives for fishermen for fishing sustainably with better prices. (eg MSC certification of the skipjack fishery). At least 10,000 fishermen continue to benefit from the certification of the the skipjack fishery.

Protected Areas have been set up in local communities where it is demonstrated to local communities that income and livelihoods may be improved through biodiversity conservation

Composting is to be made an integral part of island waste management plans whereby government provide funds and capacity to set up island level compost facilities encouraging the use of organic fertilizers for agriculture and generating income by selling compost.

A Good Agriculture Practice project has been initiated by the government of Maldives.

Number of reef rehabilitation and restoration efforts are underway and funds are allocated to these efforts through the tourism industry and other donors.

EN

Indicators and Activities

Indicator(s)used in this assessment

- Amount and number of incentives and positive subsidies
- Number of organic farms using sustainable practices and renewable and recycling initiatives including local composts
- Number of certifications given each year for conservation friendly industrial establishments
- Number of fishermen involved in conservation friendly fishery

EN

Level of confidence

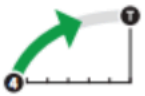
Level of confidence of the above assessment

Based on comprehensive indicator information

Adequacy of monitoring information to support assessment

Monitoring related to this target is adequate

17. By 2025 pressures on coral reefs and other vulnerable ecosystems due to anthropogenic activities and climate change are minimised



2018 - On track to achieve target

Targets

17. By 2025 pressures on coral reefs and other vulnerable ecosystems due to anthropogenic activities and climate change are minimised	EN

Category of progress towards the implementation of the selected target

Rate of progresses toward the implementation of the selected target

On track to achieve target

Date the assessment was done

21 Oct 2018

Summary of the assessment of progresses toward the implementation of the selected target

- Climate change policy implemented

- Maldives NDC implemented

- Renewable energy sources installed in xxx islands contributing to 30% of peak time electricity demands

- EIA regulations implemented

- Establish an inventory of sea grassbeds, mangroves, wetlands, and swamps for 3 atolls. Pilot projects will be extended to all atolls in the coming years.

- Data available for the development of habitat databases for coral reefs

- National Coral Reef Monitoring Framework set up and operational which will help to asses and identify specific anthropogenic impacts on coral reefs and other vulnerable ecosystems

- Coral bleaching monitoring in place and bleaching reports published

EN

Indicators and Activities

Indicator(s)used in this assessment

- Decrease in carbon foot print by the installation of renewable sources of energy (Solar) - Fuel import data - Production of Inventories of searass beds, mangroves, wetlands and swamps - Number of assessments on anthropogenic impacts on coral reefs and other vulnerable ecosystems - Assessment reports of impacts on coral reefs and other vulnerable ecosystems due to ocean acidification and elevated sea surface temperature - Policy on climate change - Number of new laws and regulations and amendments relating to the decrease of anthropogenic pressures and climate change impacts on coral reefs and other vulnerable ecosystems	EN

Level of confidence

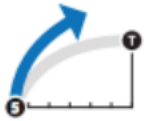
Level of confidence of the above assessment

Based on comprehensive indicator information

Adequacy of monitoring information to support assessment

Monitoring related to this target is adequate

18. By 2025, at least 10% of coral reef area, 20% of wetlands and mangroves and at least one sand bank and one uninhabited island from each atoll are under some form of protection and management



2018 - On track to exceed target

Targets

18. By 2025, at least 10% of coral reef area, 20% of wetlands and mangroves and at least one sand bank and one uninhabited island from each atoll are under some form of protection and management EN

Category of progress towards the implementation of the selected target

Rate of progresses toward the implementation of the selected target

On track to exceed target

Date the assessment was done

31 Dec 2018

Summary of the assessment of progresses toward the implementation of the selected target

- about 5% of coral reef of the Maldives is now legally protected.

- With the new administration in November 2018, the Government of Maldives has pledged to designate at least 1 island, 1 reef and 1 mangrove or wetland area from each atoll of Maldives. As such 14 new areas have been designated as protected under Environment Act of Maldives recently from 4 administrative atolls. EN

Indicators and Activities

Indicator(s)used in this assessment

- Reports of surveys and identification of significant ecosystems that needs to be protected
- Significant areas identified
- Maldives declared as a UNESCO Man and Biosphere Reserve
- Number and types of protected areas declared by law
- Management plans/regulations promoting eco-tourism for sustainable management of the protected areas
- Reports on increase in richness of ecosystems

EN

Level of confidence

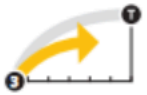
Level of confidence of the above assessment

Based on comprehensive indicator information

Adequacy of monitoring information to support assessment

Monitoring related to this target is adequate

19. By 2025, impacted ecosystems that provide essential services related to water, human health, wellbeing and livelihood are restored significantly



2018 - Progress towards target but at an insufficient rate

Targets

19. By 2025, impacted ecosystems that provide essential services related to water, human health, wellbeing and livelihood are restored significantly	EN

Category of progress towards the implementation of the selected target

Rate of progresses toward the implementation of the selected target

Progress towards target but at an insufficient rate

Date the assessment was done

25 Oct 2018

Summary of the assessment of progresses toward the implementation of the selected target

- Mangrove rehabilitation reports - Number of islands with sewerage and desalination water networks - Number of islands covered under the Integrated Water Resources Management project	EN

Indicators and Activities

Indicator(s)used in this assessment

- Database on the threats and pressures on ground water lenses and other important components of the reef ecosystem - Income generated through biodiversity and ecosystem services (as a result of programmes to restore essential ecosystems through addressing pressures, restoration, and providing alternative solutions to prevent destruction and overuse). - Fisheries statistics (improved reef fisheries as a result of programmes to restore essential ecosystems through addressing pressures, restoration, and providing alternative solutions to prevent destruction and overuse). - Number of community based initiatives on ecosystem conservation (as a result of programmes to restore essential ecosystems through addressing pressures, restoration, and providing alternative solutions to prevent destruction and overuse). - Number of land use plans addressing restoration of essential ecosystems at local level (as a result of programmes to restore essential ecosystems through addressing pressures, restoration, and providing alternative solutions to prevent destruction and overuse). (Eg. Addu Eedhigali Kulhi, Manta Point and the protection of special sites for reef fish spawning aggregations and biodiversity hotspots) - Number of islands with water quality improved to a potable standard (as a result of programmes to restore essential	EN

ecosystems through addressing pressures, restoration, and providing alternative solutions to prevent destruction and overuse). (Integrated water resources management program)

- Number of islands with the vegetation belt (As a result of vegetation rehabilitation programs)

Any other tools or means used for assessing progress.

- Integrated water resources management project documents

EN

Level of confidence

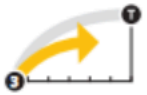
Level of confidence of the above assessment

Based on comprehensive indicator information

Adequacy of monitoring information to support assessment

Monitoring related to this target is partial (e.g. only covering part of the area or issue)

20. By 2025 rate of loss of all natural habitats are identified and where rate of loss is high, the rate of loss is at least halved or where feasible, brought close to zero



2018 - Progress towards target but at an insufficient rate

Targets

20. By 2025 rate of loss of all natural habitats are identified and where rate of loss is high, the rate of loss is at least halved or where feasible, brought close to zero	EN

Category of progress towards the implementation of the selected target

Rate of progresses toward the implementation of the selected target

Progress towards target but at an insufficient rate

Date the assessment was done

26 Oct 2018

Summary of the assessment of progresses toward the implementation of the selected target

- EIA reports - Beaching reports - Reef monitoring reports - Fish stock assessment reports - Status of fishery reports by MRC	EN

Indicators and Activities

Indicator(s)used in this assessment

- Revised EIA process to address habitat loss - Habitat Database on the types, number, quantity, quality of and pressures on the habitats of Maldives populated - Annual reviews of the database - Inventory of all critical habitats established - CRMF database implemented at MRC - Islands of Maldives database at MOFA implementaed - Measures of rate of loss / changes in habitat - Number and rates of habitat loss addressed by EIAs - Make SEA mandatory for all development project affecting coral reef habitats - Amendments to the EIA process - Revised Environmental Act	EN

Any other tools or means used for assessing progress.

- EIA report effectiveness	EN

- political pressure on the EIA process

Level of confidence

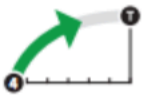
Level of confidence of the above assessment

Based on comprehensive indicator information

Adequacy of monitoring information to support assessment

Monitoring related to this target is adequate

21. By 2020, prevent extinction of locally known threatened species.



2018 - On track to achieve target

Targets

21. By 2020, prevent extinction of locally known threatened species. EN

Category of progress towards the implementation of the selected target

Rate of progresses toward the implementation of the selected target

On track to achieve target

Date the assessment was done

27 Oct 2018

Summary of the assessment of progresses toward the implementation of the selected target

- Regulations and guidelines and agreements in place for the protection of threatened species
- list of species that are prohibited from expolitation
- Lists of species that are trade controlled.

EN

Indicators and Activities

Indicator(s)used in this assessment

- Species reports of locally threatened species
- database of threatened species
- Number of revised guidelines and regulations on threatened species
- Number of regulations and guidelines enforced

EN

- Increased reports on sighting of threatened species
- Management plans population of the species

Level of confidence

Level of confidence of the above assessment

Based on partial indicator information and expert opinion

Adequacy of monitoring information to support assessment

Monitoring related to this target is adequate

22. By 2018 illegal trade of locally protected species is eliminated

2018 - Progress towards target but at an insufficient rate

Targets

22. By 2018 illegal trade of locally protected species is eliminated	EN

Category of progress towards the implementation of the selected target

Rate of progresses toward the implementation of the selected target

Progress towards target but at an insufficient rate

Date the assessment was done

28 Oct 2018

Summary of the assessment of progresses toward the implementation of the selected target

Addressing mandatory conflicts and removing impediments to the implementation of regulations on trade in locally significant protected species remains the a major bottleneck for the achievement of this target. Better coordination and removal of such bottlenecks is necessary to speed up the progress of the target	EN

Indicators and Activities

Indicator(s)used in this assessment

- Number of trade routes blocked - Amended regulations	EN

Any other tools or means used for assessing progress.

- Assign and empower Enforcement officers - Provide mandates for Environmental Police	EN

- Empower local councils to enforce illegal trade

Level of confidence

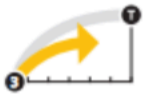
Level of confidence of the above assessment

Based on comprehensive indicator information

Adequacy of monitoring information to support assessment

Monitoring related to this target is adequate

23. By 2020 pollution from waste and sewage has been brought to levels that are not detrimental to ecosystem functions and biodiversity



2018 - Progress towards target but at an insufficient rate

Targets

23. By 2020 pollution from waste and sewage has been brought to levels that are not detrimental to ecosystem functions and biodiversity EN

Category of progress towards the implementation of the selected target

Rate of progresses toward the implementation of the selected target

Progress towards target but at an insufficient rate

Date the assessment was done

29 Oct 2018

Summary of the assessment of progresses toward the implementation of the selected target

Implementation of waste and water management policies of the government. Waste management plans are in place and implemented in xx islands. Two of the regional waste management centres are in operation. xxx islands have waste management centres. Regulations on waste management are enforced.	EN

Indicators and Activities

Indicator(s)used in this assessment

- Decrease in waste produced per person per day - Number of islands enforcing Waste Regulation - Number of island and tourism establishments with waste management plans in compliance with national Waste Regulation - Percentage of population that have access to regional waste management centres	EN

- Number of established sewerage systems in compliance with the regulation
- Pollution control standard
- Increased number of air quality monitoring systems

Level of confidence

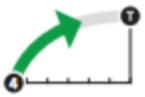
Level of confidence of the above assessment

Based on comprehensive indicator information

Adequacy of monitoring information to support assessment

Monitoring related to this target is adequate

24. By 2025 genetic diversity of cultivated and traditionally used medicinal plants and animals including socioeconomically and culturally valuable species and their associated traditional knowledge is maintained to prevent genetic erosion and safeguard their diversity



2018 - On track to achieve target

Targets

24. By 2025 genetic diversity of cultivated and traditionally used medicinal plants and animals including socioeconomically and culturally valuable species and their associated traditional knowledge is maintained to prevent genetic erosion and safeguard their diversity	EN

Category of progress towards the implementation of the selected target

Rate of progresses toward the implementation of the selected target

On track to achieve target

Date the assessment was done

04 Nov 2018

Summary of the assessment of progresses toward the implementation of the selected target

- Herbarium planned in the government SAP - Reports on traditional medicinal plants - Assessment of threatened habitats and species of medicinal plants - Programmes to increase awareness on traditional medicine (VESHI list of medicinal plants) - plans to establish a botanical garden??	EN

Indicators and Activities

Indicator(s)used in this assessment

- Database on traditional plants - Number of threatened species of medicinal plants identified - Increase in traditional medicinal plants and animals - Number of patients utilising practitioners of traditional medicine - Custom data on imports on herbal medicine - Number of locally produced traditional medicine available in the market - Guidelines for conservation - Number of patients utilising practitioners of traditional medicine - Amount of locally produced medicine available in the market - Number of plants and animals in the museum - Number of specimens in the herbarium and animal museum - Number of local specimens in the regional or international seed/ gene bank - Number of local species in the botanical garden - Number of animals in the zoological garden - Institute of traditional medicine established.	EN

Level of confidence

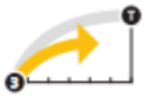
Level of confidence of the above assessment

Based on comprehensive indicator information

Adequacy of monitoring information to support assessment

Monitoring related to this target is adequate

25. By 2025 national data system on the status of key ecosystems, species and genetic diversity are in place and science based technologies related to biodiversity are improved, shared and transferred



2018 - Progress towards target but at an insufficient rate

Targets

25. By 2025 national data system on the status of key ecosystems, species and genetic diversity are in place and science based technologies related to biodiversity are improved, shared and transferred	EN

Category of progress towards the implementation of the selected target

Rate of progresses toward the implementation of the selected target

Progress towards target but at an insufficient rate

Date the assessment was done

04 Nov 2018

Summary of the assessment of progresses toward the implementation of the selected target

- lack of coordination to share data across ministries and to set up a working data base
- Data available at different institutions to be compiled (MOFA atolls of Maldives database, NGIS, Laamu and Baa Atoll data)

EN

Indicators and Activities

Indicator(s)used in this assessment

- Database on biodiversity and Ecosystem Services
- Number of trained technical officers
- Number of trained personnel in different government offices
- Updated GIS system that has biodiversity included
- advancement of the technologies used to monitor biodiversity
- Number, types and sources of information on biodiversity

EN

Level of confidence

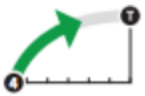
Level of confidence of the above assessment

Based on comprehensive indicator information

Adequacy of monitoring information to support assessment

Monitoring related to this target is adequate

26. By 2025 innovative financing mechanisms for biodiversity conservation are established.



2018 - On track to achieve target

Targets

26. By 2025 innovative financing mechanisms for biodiversity conservation are established. EN

Category of progress towards the implementation of the selected target

Rate of progresses toward the implementation of the selected target

On track to achieve target

Date the assessment was done

06 Nov 2018

Summary of the assessment of progresses toward the implementation of the selected target

- With better and more transparent policies the Green Tax can be effectively used for reduce the environmental footprint of the tourism industry as a whole. Taxing the use of coral reefs by the resorts for tourism development is a well found conservation policy which need to be more streamlined for it to be effective.	EN

Indicators and Activities

Indicator(s)used in this assessment

- Number of ecotourism initiatives developed - Government income generated from ecotourism - Number of families, businesses benefiting from eco-tourism - Income generated through user-pay - Number of conservation CSR projects - Number of private sector conservation initiatives and partnerships for - Number of projects awarded by each fund to biodiversity	EN

- Monetary value of projects awarded annually to biodiversity

Level of confidence

Level of confidence of the above assessment

Based on comprehensive indicator information

Adequacy of monitoring information to support assessment

Monitoring related to this target is adequate

Section IV. Description of national contribution to the achievement of each global Aichi Biodiversity Target

1. Awareness of biodiversity values

Description how and to what extent the country has contributed to the achievement of this Aichi Biodiversity Target

The Maldives is the 7th largest coral reef system in the world. The Maldivian coral reef archipelago contains the most perfectly formed atolls of the world, studied and admired by the earliest of coral reef scientists. Therefore the atolls of the Maldives may be termed as globally significant in terms of coral reef conservation and the maintenance of biodiversity. A number of activities have been undertaken over the past 5 years to increase people's awareness on coral reefs and their biodiversity values

EN

Awareness on biodiversity has increased in the past 5 years on many fronts in the Maldives. Many organisations both government and non government have contributed to increasing biodiversity awareness. Social media has seen

increased number of pages and accounts run by local NGOs and groups on biodiversity awareness including facebook pages such as "Save the beach Maldives", "Maldives Biodiversity", "Murakameehun", "Save Maldives", and "Faru Koe" where the total views have reached over few hundred thousands.

In the past 5 years, many NGOs and CSOs have continued to actively engage in biodiversity conservation at national and local level. Some of these NGOs working at national level include, Save the Beach, IDEAS, EcoCare Maldives, BluePeace Maldives, Save Maldives, Manta Trust, Olive Ridley and IUCN.

The new School curriculum published in 2016 by the Ministry of Education has environmental conservation well integrated into the syllabus. The syllabus can be found at https://www.nie.edu.mv/index.php/en/national-curriculum/syllabuses

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The Ministry of Environment as the lead agency mandated to oversee biodiversity conservation has conducted more than 25 programs on biodiversity awareness from 2016 to 2018. Meanwhile the Ministry of Fisheries, Marine Resources and Agriculture conducted numerous agriculture related training and awareness events reaching out to almost 3000 farmers over a 5 year period. These programs are designed to increase awareness on sustainable agriculture and conservation of the environment.

The IUCN in carrying out conservation projects in the Maldives in partnership with the Ministry of Environment, has at reached out directly to over 2000 people through biodiversity related training and awareness events carried out in the atolls. The IUCN estimates that it has further reached over 200 thousand people through its media outreach programs. IUCN's programs were held in outer atolls, where possible targeting local communities, schools and media. It has further published 19 reports relating to biodiversity conservation.

A key contribution to biodiversity awareness in the past year has been a nation wide school program called "Farukoe" initiated by the Ministry of Education. "Farukoe" (*Faru = Reef, koe = child*) is a local Maldivian term which means "child of the reef". The term maybe taken to describe a child who spends time enjoying the reef and the sea. The 'farukoe" program was launched in 2018 and the goal was to ensure that every student of the Maldives experiences the coral reefs around them and appreciate that they live on coral reefs with rich marine biodiversity. The program is also structured around parents, teachers and local NGOs and local communities so that they are made aware of the reef habitat that surrounds their island and the services they derive from the reefs.

The program further also encourages schools to be active in the conservation of biodiversity by beach clean up programs, waste reduction especially the plastic pollution. The program has been huge success in terms of coral reef biodiversity awareness. Today 71,426 out of a student population of 77,069 has gone snorkeling to see and experience the reef.

The Maldives is a coral reef island nation of about 400,000 people. Coral reef biodiversity is paramount for sustainable development in the Maldives. The achievement of all SDGs are centered on coral reefs and the surrounding oceans and seas. Sustainable management and utilisation of coral reefs and their resources are intricately linked to all 17 of the SDGs.

In determining the level of awareness on biodiversity the best indicator remains the school children. In reaching out to the communities dependent on reefs, schools and school children have been targeted well and schools children are generally high in biodiversity or environmental awareness. The youth of the Maldives in general now appear to have a high respect and understanding of the coral reef environment. They are also active in the social media on conservation issues and have also been quite vocal to show their disagreement with government projects that have a negative bearing on coral reefs.

2. Integration of biodiversity values

Description how and to what extent the country has contributed to the achievement of this Aichi Biodiversity Target

The of major economic sectors in the Maldives are tourism and fishing both of which are based on coral reefs. Both sectors have comprehensive masterplans for the development of the sectors. Both sectors have strong strategies for biodiversity conservation integrated into their plans.

The tourism masterplans 1,2,3, and 4 recognized that the entire industry depends on a wholesome environment and the conservation of nature and biodiversity of coral reefs. The tourism pledged to help the agencies responsible for environment and conservation, both for the sake of the tourism industry itself, as well as for the sake of future generations of Maldivians.

EN

The 3rd tourism masterplan highlighted 5 main areas of focus with respect to protection and conservation of coral reef biodiversity;

(1) preserving natural beauty of the islands,

(2) ensuring the adherence to EIA requirements during and after resort construction,

(3) conservation of reefs

(4) disposal of garbage generated by tourist resorts, and

(5) discharge of sewage and effluent water.

The Strategic Action Plan of the 4th tourism masterplan has specific biodiversity conservation strategies incorporated into the plan. Under the broad theme of managing the environment and conservation, the plan addressed the following:

The recurring themes relating to biodiversity conservation in the tourism sector policy documents are summarized as:

1. Protect coral reefs and conserve biodiversity

2. Establish healthy communities with a focus on water, air quality and waste management

3. Regulatory enhancements

4. Capacity building and awareness (on environment and biodiversity conservation)

5. Building resilient islands with a focus on climate change adaptation & disaster risk reduction

6. Achieve carbon neutrality with a focus on green energy technology

Specific strategies and actions are prescribed in the 4 TMP to conserve coral reef biodiversity.

- This included the developing and enforcing management plans for sensitive environments.

- To develop management plans for marine protected areas and designated sensitive environments and to be actively engaged in the management of marine protected areas and designated sensitive environments to minimise human impacts with management plans developed in consultation with government agencies, related private sector industries and the public.

- To establish a Tourism Planning Committee at national level with a mandate to assist the preparation and enforcement of MPA management plans and to settle grievances over natural resource use involving the tourism.

- Establishing marine managed areas in resort house reefs. The Maldives has announced a national level policy to make the entire country as a 'biosphere reserve'. The house reefs of most resort islands are already well managed due to their importance to the tourism product, particularly in relation to aesthetics, snorkeling and diving. The announcement of the 'biosphere reserve' concept provides an opportunity for industry leaders to spearhead policy implementation that will help resorts manage house reefs.

- Help to drive the 'biosphere reserve' programme by setting up marine reserves with in house reefs or boundaries of resorts. Need to conserve and manage the marine environment around resort islands and tourism sector should help drive the national 'biosphere reserve' programme.

- Implementing a ‚Responsible Visitor Programme' National level environmental management and conservation efforts by the tourism sector have so far been aimed at development and operational aspects.

- Implementing climate change adaptation programme for tourism industry

- Implementing a low carbon programme for tourism industry

- Strengthening environmental monitoring for evidence based decision making proper environmental management and conservation measures.

Biodiversity related Policies and Strategies which support the Aichi Biodiversity Target within the Fisheries Sector of the Maldives

Fisheries Sector Policies:

Fisheries is the most important economic activity with respect to biodiversity and ecosystem services in the Maldives in terms of direct livelihoods to island communities. It provides direct income to 15-20 % of the population. Fisheries sector policies and strategies with relevance to biodiversity are described in the draft fisheries masterplan (*draft MASPLAN 2018*) and the Maldives Fisheries Policy (2017) documents.

In terms of Fisheries Policy and Governance, the following are highlighted as issues to be addressed:

- Address resources use conflicts between tourism and fisheries (mainly related to coral reef biodiversity and Oceanic fisheries biodiversity) through more productive discussions between line ministries/departments/agencies
- Licensing of all fishing vessels engaged in fisheries
- Implement regulations for better management of bait fisheries
- Better enforcement of existing fisheries sector regulations and address issues between various fisheries through better regulations and enforcement
- Increased awareness raising programs for fishers regarding sustainable fisheries management

The strategic vision and goals of the fisheries sector identified policies and strategies that will help the Maldives achieve biodiversity strategies.

The fisheries sector policies undertake to continue to develop the tuna fishery using environmentally friendly fishing methods with responsible measures to manage and conserve the fisheries. The Plan emphasizes the need to develop an "atoll based fishery management system" which is in line with the conservation policies of the MEE. The plan also undertakes to seek third party certification of the major reef fisheries, aquaculture development both with the overall objective of fisheries sustainability and biodiversity conservation.

Detailed activities of the fisheries sector plan:

A) Oceanic fisheries

- Improvement of the regulatory mechanism by strengthening the Monitoring Control and Surveillance (MCS) system of oceanic fisheries
- Establishment of oceanic fisheries resources management training program
- Establishment of fisheries co-management of oceanic fisheries
- Improvement of the catch data collection for by-catch
- Technical development and examination of live bait catch and holding for improving their survival rate
- Technical development on the mitigation measures of shark by-catches in longline fishing

B) Reef fisheries

- Improvement of biological, socio-economic and statistical catch data collection and analysis systems

- Improvement and strengthen fisheries-related legislation
- Enhancement of fisheries compliance/ enforcement
- Design and implementation of fishery management plans
- Capacity enhancement of stakeholders on marine resource and environmental management
- Establishment of atoll-based reef fisheries management system (ABRFMS)

C) Aquaculture

- Formulation of master plan of Aquaculture Sub-sector
- Strengthening MoFA's capacity for aquaculture training, demonstration and extension

Strategic Action Plan of the Ministry of Fisheries and Agriculture (2014 – 2018)

The manifesto pledges of the current government (2013-2018) has been fleshed out into fisheries sector policies and strategies (SAP 2014-18) as described in the FISHPLAN 2018 (draft masterplan). The Manifesto Pledges related strategies and targets have clear indictors for the implementation of the NBSAP 2015-25. Relevant fisheries sector strategies of the SAP (2014-18) supporting the NBSAP and Aichi Biodiversity Target are given below:

POLICY 4-2: Maintaining Maldivian fishery as a world recognized model for responsible and

sustainable fishery

Strategy 1. Formulate and implement management plans for different types of fishery

in the country

Activity 1. Formulate and implement management plans for all commercial fisheries

Activity 2. Ascertain the state of sport and recreational fishing in Maldives and

establish management mechanisms

Activity 3. Raising public awareness of (fisheries) management plans

Strategy 2. Review and revise fisheries legislation and formulate regulations

Activity 1. Revise the Maldives fisheries act

Activity 2. Raise public awareness of the fisheries act

Activity 3. Formulate and implement fisheries regulations

Activity 4. Raise public awareness of fisheries regulations

Strategy 3. Implement a monitoring, control and surveillance system in accordance with the fisheries laws/regulations and resolutions of international organizations of which Maldives is a member.

Activity 1. Formulate and implement an observer program to monitor fishing vessels, production facilities and aquaculture establishments.

Activity 2. Training of observers

Activity 3. Strengthening the vessel monitoring system

Activity 4. Raising public awareness on vessel monitoring systems

Activity 5. Installing vessel locating devices on commercial fishing vessels

Strategy 4. Increasing the accuracy of fisheries statistics and strengthening this area.

Activity 1. Establish and operate a "fisheries information system"

Activity 2. Produce and distribute log books used in fisheries statistical data collection

Activity 3. Raising public awareness of fisheries statistics/data collection system

Activity 4. Introducing new methods to strengthen fisheries statistics.

Policy 4.3 Research Strategies

Strategy 1. Conduct research on offshore fisheries

Activity 1. Estimate the amount/proportion of big eye and yellowfin tuna caught during

pole and line fishing

Activity 2. Estimate the amount caught at Fish Aggregating Devices (at log schools) in order to strengthen fisheries statistics

Activity 3. Revise the conversion factors used in fisheries statistics

Activity 4. Strengthen and expand the length-frequency program for tuna, and increase representation of Mackerel tuna and Frigate tuna samples in this data

Activity 5. Conduct awareness programs to reduce waste in bait usage and to promote responsible bait fishery

Strategy 2. Collecting data required for strengthening the planning and management of reef fisheries.

Activity 1. Conducting compliance audits under the National Coral Reef Monitoring framework

Activity 2. Raising awareness of National Coral Reef Framework protocols among stakeholders

Activity 3. Conducting fish watch programs in collaboration with tourist resorts

Activity 4. Identify and test new technological approaches to obtain detailed data of reef fish purchases by resorts

Strategy 3. Ascertain the state of protected fish and marine life, reducing the threat of by-catch to these species.

Activity 1. Continuing work on the Shark Watch program

Activity 2. Conduct research on shark by-catch amounts in long line fishery, raise awareness of fishermen to reduce shark by-catch

Activity 3. Establish standards for turtle monitoring programs being conducted by resorts and NGOs

Strategy 4. Conduct socioeconomic studies on fisheries

Activity 1. Conduct a fuel use intensity study using data collected from fishermen for the "fuel subsidy program".

Activity 2. Conduct a study to identify the social benefits of fishing communities

The School Curriculum has environmental conservation well integrated to the syllabus and can be found at https://www.nie.edu.mv/index.php/en/national-curriculum/syllabuses

In 2011,for the first time in the country, Maldives National University initiated an undergraduate degree course on environment, named Bachelor of Environmental Management

The present Administration of the government while taking their office in November 2018 has pledged to protect 1 island, 1 reef and 1 mangrove in each of the 20 administrative atolls of the country in addition to the already protected areas.

3. Incentives

Description how and to what extent the country has contributed to the achievement of this Aichi Biodiversity Target

The small scale fisheries and agriculture sectors in the Maldives represent prominent sources of employment for the local island

EN

communities. It is estimated that there are 10,000 thousand fishermen and 7000 farmers. When these numbers are translated into fisher and farmer families we see that at least one fourth of the population relies on income generated from fisheries and agriculture. The high reliance of the local communities on the fisheries and agriculture on scattered small islands demands that the government provides assistance to the sectors directly and indirectly. Numerous training and awareness programs targeting farmers were conducted in outer islands. At the same time fish landing facilities, ice plants and investment are facilitated by the government. Such indirect subsidies are not considered detrimental to biodiversity.

In 2008 the government introduced 150 million Rufiyaa (approx. 9.7 million USD) of financial subsides for fishers and farmers. Of these 100 million was to be handed out as fuel subsidies where and 50 million was distributed to farmers as farm equipment and agro chemicals. The subsidies were phased out in 2013. Currently there are no direct financial subsidies in these two sectors.

Many species of sharks are threatened by overfishing and finning around the world. In the Maldives a small shark fishery served small communities from atolls. Considering the global and regional threat on the shark species both oceanic and reef based, the Maldives banned shark fishing in its territorial waters and the EEZ in 2012. The Maldives is now essentially a shark sanctuary and the only one in the Indian Ocean and only one of a handful in the whole world. The shark fishermen who lost their jobs were compensated by a gear-buy-back programs implemented by the government. All shark fishing gear from fishermen were bought by the government and discarded. The shark fishermen were also trained on alternative livelihood opportunities.

4. Use of natural resources

Description how and to what extent the country has contributed to the achievement of this Aichi Biodiversity Target

- The key economic sectors in terms of sustainable consumption and production are **fishing and tourism**. Tuna fisheries has a history of 1000 years and is still considered sustainable. The secret lies in the method and the way of life. Tourism development in Maldives is now almost 40 years old where the product has been upgraded with the same concept enhanced by biological diversity.

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A house reef for snorkeling, vast expanses of shallow reef lagoons with high diversity of fish corals and invertebrates to enjoy. There is a no take policy on all resorts; no fishing, no sea food from reefs and no use of groundwater. The tourist resorts are sustainably operating systems that conserve biodiversity. The development on shallow lagoons leave most of island green and untouched. However, the demand for uninhabited pristine islands has increased over time and land reclamation has become a common practice posing threats to biological diversity.

The tourism sector that amounts for almost 30% of GDP heavily depends on the natural beauty and climate of the country. The marine life including the mega fauna and coral reefs are among the greatest attraction and are at the same level as the sandy white beaches and clear blue waters. The Tourism Master Plan has many environmental components that ensure sustainable tourism. "The Regulation on the Protection and Conservation of Environment in the Tourism Industry" sets out environmental standards that each tourism operation shall adhere to. According to this regulation, 80% of the island including the lagoon leased out for tourism purpose must be left un-built, hence giving space for nature. The lagoon, including the reef area of the resort shall remain free from any type of exploitation. All tourism establishments must go through a comprehensive EIA process which includes biodiversity considerations.

However, the tourism operations target the high-end market where the consumption pattern globally is unsustainable. While about 1.5 million tourists visit Maldives each year, according to a study done by Ministry of Tourism in 2013, each tourist produces 2.9kg of food waste per night of stay. The high rate of fuel consumption in tourism and hospitality industry, including transportation both on sea and in air, and the high resource dependence makes this industry less sustainable.

While there are 141 resorts currently in operation, 132 new islands including lagoons have been leased out for resort development. In recent years, lagoons are being reclaimed for tourism purpose. Land reclamation for tourism may pose additional threats to the natural environment.

- Certified as sustainable by the Marine Stewardship Council of UK, skipjack tuna fishery is the largest fishing sector in the Maldives. Being a major oceanic tuna fisheries, the Maldives is central to managing the biodiversity of the Indian ocean at large. Maldivian fishing vessels span an area of a million sq km of seas within their EEZ in their quest for tuna fisheries. Fishing Companies can make use of these characteristics of tuna utilization to achieve sustainability. Horizon Fisheries Ltd is one such company committed to sustainable consumption of and production with the marine fisheries

sector. Its outreach programs include sustainable bait fisheries management and supporting the government to manage a catch documentation system for sustainable fisheries. The catch documentation system is designed to control IUU fishing and to increase accountability by a well defined traceability program for tuna fisheries.

Horizon fisheries has strengthened its policy of tuna fishing on many fronts. The company has a policy of not buying fish smaller than 1.3 kg. The policy is very effective in communicating to fishermen that the catch of underaged fish will lead to depletion of fish stocks and support an ecosystem based approaches to fisheries management. The company also runs a program to collect plastics from the oceans by undertaking to collect marine plastics delivered to the company by fishing vessels. The program is run with support from Parley Maldives an NGO committed to combat marine plastic pollution. Horizon Fisheries Ltd also runs its own awareness programs for fishermen on a regular basis.

- Agriculture is a developing industry contributing to about 1.4% of GDP. The scarce land, dispersed as tiny islands hinders large scale agriculture in the country to a level of self sufficiency. Agriculture in Maldives is chemical based and requires clearance of already scarce natural vegetation of the island. The limestone based sand in the coral island ecosystem is less fertile, while there are no sustainable water sources other than the small ground water lens which serves as the fresh water source for the island communities.

- There is little statistical data available on other industries such as the bottling and production sectors, including consumer patterns in island communities as well as the government offices and businesses

5. Loss of habitats

Description how and to what extent the country has contributed to the achievement of this Aichi Biodiversity Target

The Maldives is a nation of 1,192 small low-lying tropical islands in an archipelago of 26 tropical coral atolls. The total land area is estimated to be approximately 227 km^2, and more than 90% of the islands are less than 0.5 km^2 in area. The islands of the Maldives are flat and low-lying. Over 80% of the total land area of the country is less than one meter above mean sea level. The coastal and marine ecosystems of the Maldives, in particular, the coral reef ecosystems are globally significant. They form the seventh largest reef system in the world and the coral reefs

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of Maldives represent as much as 5% of the world's reef area. In the 26 natural atolls of the Maldives there are 2,041 distinct coral reefs. Each of these 2000 reefs can be conveniently classified into broad based habitats.Several studies have identified habitat classes that have been inventoried by some studies. the habitat of significance within coral reefs are the reef slopes, reef flats, shallow lagoons, deep reef lagoons, seagrass beds, mangroves, wetlands, coral islands and sand banks.

In the Maldives habitat loss occurs primarily by developments on reefs.Building tourist resorts, construction of harbours and ports, building airports, land reclamation for resorts and urban development are major development activities that lead to coral reef habitat loss.

A recent trend in developing landless shallow coral reef lagoons for tourism purposes has led to a sudden surge of habitat loss through reclamation of shallow coral reef lagoons. Such reclamation has multiple impacts on the marine habitat on the reef itself and habitats in the vicinity. New land alters currents and circulation on the reef, affect larval production, drift and recruitment and nurseries, affect sea bird feeding and roosting, affects primary productivity and planktonic life and cause death of corals and reduction in fish life on the house reef. Reclamation requires heavy dredging for sand from the immediate shallow reef or from the deep atoll lagoon floor. The sedimentation and suspended soft sediment from the dredging activities have long lasting effects on habitats. Such detrimental effects on coral reefs and habitat loss have not been properly studied or measured.

Vegetation Clearance in inhabited islands for developmental purpose is the main cause of terrestrial biodiversity loss in the country. While Maldives has 187 inhabited islands, the past 6 years has seen a total of 12% decrease in vegetation cover in these islands. The main driver being the expansion of residential area followed by agriculture. Other infrastructure developments such as airports, harbours, hospitals and roads contribute to the loss.

By the time of the 5th National Report, round 1,300 hectares of reef were reclaimed as land from 98 inhabited islands. Additional 425 hectares of reef has been reclaimed since then in 16 inhabited islands and 33 lagoon habitats of reefs are being reclaimed for proposed tourist establishments. Most of these reef habitats are concentrated in North and South Male atoll. Due to these developments on shallow reef lagoons, habitat loss has accelerated in the last 5 years.

Frequent episodes of coral bleaching in the past few years have severely impacted coral reef habitats throughout the world. In Maldives the last severe coral bleaching event of 2016 killed about 73% of corals on average.

It must be noted that the trend in the loss of mangroves and wetlands have been slowed down recently by the establishment of large mangrove and wetland habitats as protected areas and increased awareness on the importance of these habitats.

The legal framework of Maldives is well established to reduce anthropogenic impacts on biodiversity. The ban on coral and sand mining since 1999 has shifted the demand from coral and sand in the infrastructure industry. The regulation on uprooting trees protects all vegetation within 12 and 20 meters of the shoreline and around mangroves. The same regulation requires an EIA if more than 200 trees are to be removed for any purpose in any terrestrial habitat. The dredging regulation aims at minimising impacts of all reclamation work on the marine environment. The EIA regulation has biodiversity conservation well integrated into it. The liability regulation defines penalties on offences against environment, including biodiversity.

Maldives has established over 50 protected areas and identified more than 250 environmentally significant areas within the country where development activities are minimal, hence providing some level of protection from habitat loss.

6. Sustainable fisheries

Description how and to what extent the country has contributed to the achievement of this Aichi Biodiversity Target

The Maldives is a major tuna fishing nation. Tuna fisheries dominated the fishing industry. Fish landings have been stable at around 100,000 MT for the past 5 years. Over 90% of the catch represent tuna and tuna like species. Skipjack tuna represents the single most important species and is considered to be reasonably well managed. The skipjack tuna stocks are found to be robust and healthy. Pole and line is the gear of choice for the tuna fishery which is widely considered to be the most sustainable method of fishing. It eliminates by-catch altogether and keeps landings within sustainable limits. Laws and regulations are in place for the management of fisheries. The tuna fishery is regulated by a comprehensive catch documentation system which ensures traceability of fish and widespread adherence to the FAO Code of Conduct for responsible fisheries.

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A number of conservation initiatives promotes ecosystem based approaches to fisheries management in the Maldives. All shark species are fully protected in the Maldives. Silky sharks are thought to be particularly important for the maintenance of large schools of tuna. The Maldives submitted a proposal to protect silky sharks under CITES which led to the inclusion of Silky sharks in CITES appendix II in 2017. Similarly, dolphins and other cetaceans are protected in the Maldives. Manta rays and all types of other rays

and turtles are also legally protected in the Maldives. Protection of these species enhances the resilience of oceanic ecosystems and the conservation of ocean fish stocks.

The multi species reef fishery in the Maldives is of recent origin. Reef fish are not so popular with local populations who have a special taste for tuna. Reef fisheries are mainly targeted for the tourist resort markets and for export.

Grouper fisheries has shown signs of over exploitation and management actions have been introduced in 2013. The grouper fishery is the only one with a management plan in the Maldives currently.

There are no records of adverse impacts on threatened species within the fishing industry. Fishing techniques used for major fisheries in the Maldives are sustainable. Large-scale net fishing are not popular in the Maldives.

The government has systems in place to combat IUU fishing. The Maldives has ratified the Port State Measures agreement and implements a comprehensive catch documentation system for tuna fisheries.

The Maldives also has policies in place for the protection of vulnerable marine habitats.

- Sharks are protected

- Whale sharks and habitats where they aggregate are protected

- Manta rays and their aggregations are protected

- Mangroves and wetlands are under protection

- Grouper spawning aggregations have been protected.

7. Areas under sustainable management

Description how and to what extent the country has contributed to the achievement of this Aichi Biodiversity Target

The agriculture sector in the Maldives is small. While there are about 1200 islands in the country, the total land area is less than 300 sq km out which 187 are inhabited, 141 are resort islands and another 132 islands are dedicated for resort development. A number of islands have been leased out for agricultural purpose while a number of communities practice agriculture in their islands. Vegetation cover in inhabited islands have decreased by approximately 12% in the past 6 years. Forests and coconut groves cover most of the vegetated areas of the islands. Agriculture contributes to approximately 1.4% of the GDP and the scale of agriculture in the islands span from dedicated uninhabited farm islands and multiple use islands where the inhabitants farm on allocated land in rural areas. The most serious impact of agriculture on biodiversity is the use of inorganic fertilizers, nutrients and pesticides and other agro chemicals. Pesticide use is widespread on the islands and no measurement or monitoring takes place to understand the scale of use of agro chemicals. A pesticide law has been drafted and its under review with the Attorney Generals office. Positive lists for safe use of agro chemicals has been formulated. Permits area required from the Ministry of Fisheries and Agriculture to import chemicals. Aquaculture is at an infant stage in the Maldives. Only the sea cucumber species *Holothuria scabra* is farmed on a large scale. Small areas of sea grass beds are cleared for the preparation of grow out cages for sea cucumbers. Some mangrove habitats, wetlands and lagoons have been used as grow out areas for *Holothuria scabra*. The development of the aquaculture sector is regulated by the Ministry of Environment through Environmental Impact Assessments. Aquaculture development is defined as activities that require an EIA to initiate the work. This ensures the sustainability of the industry. Mangrove habitats have not been destroyed on a large scale for aquaculture developments. The government uses a precautionary approach to the development of the aquaculture sector. All mangrove areas in the country are listed in the Environmentally Significant Areas list and 20 meter area around mangroves are protected. Few islands in Laamu Atoll practice aquaculture, while few others across the country have been leased out for aquaculture development but even fewer islands have any significant work in progress. The island and reef of Nalandhoo has been the only case for unsustainable aquaculture development, where the lagoon	EN

area including the bay have been extensively modified. Efforts are in place to prevent such destructive forms of development of aquaculture.

Guidelines for good agriculture practices (GAP) are developed and implemented by the Ministry of Fisheries, Marine Resources and Agriculture with the objective of promoting sustainable agriculture. The program came into operation in 2017 and is implemented by Ministry of Fisheries, Marine Resources and Agriculture in corporation with the Maldive Food and Drug Authority. The Ministry has certified one farm on one agricultural island and are working with more farm islands (Madidhoo and Maafahi) to encourage the adoption of GAP

Forestry in the Maldives is defined and characterized by the coconut groves and some hardwood trees. Coconut palms of many varieties dominate the landscape and grow wildly and under cultivation on many inhabited and uninhabited islands. Coconut groves have been strongly managed in the Maldives for generations. There were regulations which required that for every palm tree felled or removed 2 should be planted. This practice has been effectively implemented on many islands. Apart from direct economic benefits from coconut fruits and many other palm products, coconut palms act as barriers to adverse weather and protection of farmland and also regulate water resources, carbon sequestration and many indirect benefits in terms of biodiversity conservation and enhancing island resilience and ecosystem services with positive results for island biodiversity conservation.

Coconut palms are felled for the development of farms and infrastructure such as roads, harbors, airport and resorts. Illegal trade of mature coconut palms have become a major concern as they are in great demand to beautify newly reclaimed barren land on reefs of the Maldives. Illegal removal of palms has become a lucrative trade - sometimes carried out in the name of land clearance for development.

The felling of coconut palms and other trees are regulated by the Environment Act and the EIA regulations as well as by the Regulation on Uprooting Trees.

The government plans to utilize food wasted from kitchen and vegetation to make compost on every one of the 187 inhabited islands

in the Maldives. It is envisaged that the cycling of animals and plant wastes by composting would lead to organic compost and organic farming practices reducing the need for imported inorganic fertilizers. Currently there are few islands out of 187 inhibited islands making compost from biodegradable waste in a sustainable manner. One example is Ukulhas in Alif Alif atoll.

8. Pollution

Description how and to what extent the country has contributed to the achievement of this Aichi Biodiversity Target

Ground water pollution from poorly developed sanitation facilities have long been a major sources of ground water pollution on many islands in the Maldives rendering the water unusable. The ad hoc sanitation systems have affected the marine life through uncontrolled wastewater discharges over coral reef habitats surrounding the islands. These sources of sewage and sanitation related pollution is gradually being replaced by custom built sewerage systems on inhabited islands. To date 141 resort islands and 94 out of the 187 inhabited islands have sewerage systems discharging the sewage into the sea beyond the reef without proper treatment. This includes all population centers in the country including Male' where 1/3rd of the population of the country resides. The replacement of conventional sewerage discharges with custom build networks will greatly conserve and protect, not only the marine life but also the ground water resources of islands.

With a tourist population of over 1.5 million visitors per year these resorts are major sources of pollutants. The tourism regulations in the Maldives have effectively regulated the sources of pollution from tourist resorts. A resort in the Maldives cannot be operated without a proper sewerage treatment facility. There are strict restrictions on ground water usage and contamination. The mandatory use of desalinated water on all resort islands conserves and protects the ground water from pollution and overuse. The resorts are also mandated to have proper recycling facilities for solid waste reducing pollution from plastics and other solid wastes. However, resorts also have the option of transferring their waste to "Thilafushi", the waste collection center near Male' where waste is simply dumped. Each tourist produces on average 7.5kg of waste per night of stay in the Maldives.

Green House Gas emission inventories show that 36% of green house gas in produced by tourism sector in their resorts and transportation, while 19% is through providing electricity and 15% in waste management.

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Air pollution related complications is estimated to cause approximately 48 deaths per year in the country. The ambient particulate matter greater than 2.5 micrometers ($PM_{2.5}$) in the capital city of Male' is estimated at 19µg/m^3. The increase in air pollution is attributed to the increase in vehicular emission within the the small capital city, which of less than 2Km^2 in size. More than 70,000 land based motorised vehicles are registered in the Maldives.

Maldives does not produce chemicals on a large scale, however, chemical import into the country and thereby inappropriate disposal has increased in the past years, especially for health sector, agriculture and cosmetics. Industrial chemicals are also in the rise. Lack of proper waste disposal facilities results in all types of waste including hazardous waste, hospital waste, as well as persistent organic pollutants either to be dumped in waste collection facilities in local islands or buried in the ground or incinerated or dumped into the sea. Incineration happens in a very small scale throughout the country. All these pollutants seep into the subsurface soil and water lens contaminating both.

Single use plastics is the most serious threats to biodiversity in the Maldives. Plastic contaminated fish including tuna, the main source of protein for the inhabitants of the Maldives, have been reported recently. Many beaches and terrestrial and marine habitats are littered and contaminated with plastics. One observation showed plastic in the guts of every single tuna caught.

Maldives has initiated efforts to reduce pollution due to waste, chemicals and other pollutants. A National Waste Management Policy was launched in 2015. Regional waste management centers are being established for proper disposal of waste. A regional waste management center has been established in the North Central region of the country. This facility is expected to start its operations in the near future. Funding and resources required for 4 additional waste management centers, including the waste management center at "Thilafushi" have been secured.

The efforts to control the reduction of plastics have gained momentum in the Maldives in recent years primarily due the efforts by NGOs. Parley Maldive have been playing a key role in reducing plastics and in cleaning up of major plastic dumps around the country. Schools, companies and the government have been mobilised through efforts of Parley to collect and recycle large proportions of plastics. Awareness programs have been conducted regularly for schools on plastic pollution and potential health risks as well as impacts on biodiversity.

Chemicals used in agriculture sector has a positive list for imports, any chemical outside this list cannot be imported into the country. A National Implementation Plan to the Stockholm Convention was produced for the first time in 2017. A National Chemical Profile was established in 2015. A National Water and Sewerage Policy was adopted in August 2017 that ensures sustainable freshwater

resources and environment friendly sewerage systems with proper sewage treatment facilities. Maldives Energy Policy and Strategy was launched in December 2016. This policy aims at providing at least 30% of daytime peak electricity through renewable sources in all islands.

9. Invasive Alien Species

Description how and to what extent the country has contributed to the achievement of this Aichi Biodiversity Target

Island nations are vulnerable to invasive species but at the same time they are also easy to be protected from invasive alien species and eradicating is also easier than large continental habitats.

The main sources on invasive species to the Maldives is via imports of live plants and animals by sea and air. The fact that most imports of good to Maldives are by ships presents a major problem of ballast water discharges as a potential source of spread of invasive alien species especially to the marine environment. Few studies have been carried out to understand the prevalence for alien species and diseases in the marine environment particularly coral reefs. There are reports of invasive species of the algae *Caulerpa racemosa* affecting corals (Montano et al 2012). Several cases of terrestrial incidents and outbreaks have also been recorded. The coconut hispit beetle infestation of local varieties of coconut palms was thought to be the direct result of illegal imports of live unregulated coconut palm varieties into the country. Much work has been carried out to eradicate the beetle through biological controls and other means. Several other species of alien and invasive species is described (FAO 2016).

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The Maldives has had a system of controls of import of live animals and plants for some time. Imports of marine species has been particularly well controlled by the Ministry of Fisheries and Agriculture. Historically only freshwater fish has been permitted as there are no threatening fresh water fish habitats in the Maldives.

A legally binding quarantine facility was established to address imports of live animals and plants. There are strict quarantine regulations and procedures to be followed for the import of live animals and plants. The quarantine facility has been instrumental in controlling live imports of plants and animals. Regular Customs checks coordination with the quarantine officers have been inspecting shipments of live species. Non native marine species are not permitted under the quarantine regulations creating an effective barrier for air transport of alien species. Health certificates are required for all live specimens imported. Prior notice and

permits are also necessary.

The Maldives has a national law on plant protection and relevant regulations. Maldives has is also has ratified the International Plant protection Convention (IPPC). Sanitary and phytosanitary measures in the place for the imports of live plants. A health certificate is required for animal imports. The IPPC deals with the international trade in any commodity that could introduce a new plant pest in to a new area. It is applicable to all trans boundary movements of plants and plant products. Hence Maldives plays an active part in developing standards that help to protect their exported and imported goods. The Maldives is also a member of World Animal Health Organisation (OIE). These global instruments have helped the country to keep checks on plant and animal imports and trade thereby effectively dealing with invasive and alien species. Maldives is a member of CITES and customs authorities have been trained on apprehending trade of listed and controlled species.

Maldives has also ratified the International convention for the control and management of ships ballast water and sediments. The convention is instrumental in dealing with introduction of invasive aquatic species to marine ecosystems. Shipping has been identified as a major pathway for introducing species to new environments. The problem increased as trade and traffic volume expanded over the last few decades, and in particular with the introduction of steel hulls, allowing vessels to use water instead of solid materials as ballast. The effects of the introduction of new species have in many areas of the world been devastating. Quantitative data show the rate of bio-invasions is continuing to increase at an alarming rate. As the volumes of seaborne trade continue overall to increase, the problem may not yet have reached its peak. This Convention (The International Convention for the Prevention of Pollution from Ships - MARPOL) aims to prevent the spread of harmful aquatic organisms from one region to another, by establishing standards and procedures for the management and control of ships' ballast water and sediments

10. Vulnerable ecosystems

Description how and to what extent the country has contributed to the achievement of this Aichi Biodiversity Target

Maldives is a group of atolls entirely built by coral reefs. The 2000 + reefs harbour mangroves, wetlands, inland water bodies, deep lagoons, coral dominated habitats, seagrass beds, vegetated islands, sand banks and vast expanses of shallow sand flats. The growth and destruction of corals and calcareous organisms develop and alter these habitats keeping the reef system in an ecological balance with well defined populations of marine and terrestrial animals. The biodiversity of these coral reef ecosystems are facing great changes due to climates change. The most devastating consequence of climate change on coral reef may be the increased temperatures which lead to more frequent bleaching events. Bleaching events of 1998 in the Maldives killed over 90% of shallow water corals it was estimated. The recovery of affected reefs were well underway when another mass bleaching event occurred in 2016. There were widespread death of corals and destruction of reefs in 2016 with an estimated loss of 70% coral cover on reefs assessed. In such dire circumstances it is important that coral reef recovery be enhanced by minimising the anthropogenic pressures on coral reefs. Many actions have been taken to minimise pressures on coral reefs: 1. 61 Marine protected areas have been established 2. Sensitive areas have been listed for planning purposes on coral reefs 3. Areas of biological and ecological significant area have been identified and protected: such areas include manta ray feeding aggregations, grouper spawning aggregations and hammerhead shark aggregations. 4. Work proceeding to make the Atolls of Maldives as a biosphere reserve. The vision behind the Maldives as a biosphere project is to recognise the important role coral reefs play in providing income and livelihoods for the people of the Maldives and services derived from coral reefs. It is envisaged that the biosphere reserve status will lead to better management of impacted reefs from climate and change. A biosphere reserve status encourages the authorities to formulate management plans for all reefs and protected species. It also leads to responsible use of the coral reef resources. 5. A coral reef monitoring framework has been set up collect and manage data for coral reefs 6. Waste management plans are being developed for all islands controlling unregulated dumping on beaches, wetlands and mangroves. 7. Tourist resort development in the Maldives is characterised by "one islands one resort" or "one reef one resort". By design and operation this paves the way to protect and conserve a large section of the reef on which the resort is developed. Coral reef based	EN

"one islands - one resort" concept protect coral reefs and minimizes the anthropogenic pressures on coral reefs in the face of climate so as to enhance the recovery of coral reefs following natural and other disturbances.

The resilience of impacted reefs are improved by the elimination of destructive fishing practices and the protection of endangered and threatened species (National Reports 1, 4 & 5). Corals are protected legally from mining and exploitation.

Efforts have been made to protect mangroves and wetlands by protecting representative habitats.

There is a need to strengthen and streamline the EIA process so as to minimize developmental impacts on coral reefs.

The promotion of sustainable coral reef tourism with strict developmental controls and guidelines has been a major object of coral reef management.

The Maldives recognises the importance of working with the global community and international initiatives for the conservation and protection of coral reefs.

Maldives is a member of the International Coral Reef Initiative (ICRI) working to protect coral reefs and also an active member of the Global Coral Reef Monitoring Network (GCRMN). The Maldives is a member of the Mangrove for the Future initiative working to protect and sustainable use of tropical coastal ecosystems.

11. Protected areas

Description how and to what extent the country has contributed to the achievement of this Aichi Biodiversity Target

The Maldives is an archipelago of 2000 individual coral reefs grouped into 21 atolls. Individual reefs are defined by those separated from each other by deep sea of 30 - 60 meters. The total area of these 2000 reefs is about 4500 sq kms. Only 300 sq kms of the 4500 sq kms reef area represents land (reef islands) which is less than 7% of the total reef area. Islands are products of coral reefs	EN

and hence ecological subsets of coral reefs.

There are 21 atolls in the Maldives. Each atoll is made up of rim reefs (those around the rim of the atoll) and lagoon reefs (those in the atoll lagoon) and the atoll lagoon proper. The total atoll surface area (rim reefs, lagoon reefs and the atoll lagoon) of the 21 atolls is about 21,300 sq kms. (For a detailed discussion of atoll and reef areas see Naseer, 2004).

The arrangement of coral reefs within atolls presents convenient ecological units for the conservation of biodiversity. The protection of on e single reef could protect a representative number of marine and nearshore habitats within a coral reef.

For the purposes on ABT 11 and to express the national contribution to the achievement of ABT 11, it is best to make reference to the protection and conservation of coral reefs (atolls and individual coral reefs). Coral reefs present many different habitats within them in the form of islands, shallow and deep lagoons, coral dominated habitats on reef slopes and reef tops, seagrass beds, mangroves, wetlands, beaches and vegetated islands and sand banks.

Coral reefs range in size from less than a sq km to 83 sq km in size in the Maldives. The protection of one single reef or atoll effectively protects a number of terrestrial and marine habitats of representative and significant biological diversity and ecosystem services.

Conservation of biodiversity through a system of protected areas has been a major of government policy. Protected areas are designated to protect rare and endangered species as well as sensitive habitats.

50 legally binding protected areas are established now with a total area approximately 280 sq km. This represent about 6% of total coral reef area of the Maldives.

In addition one atoll (Baa Atoll) is a UNESCO designated Biosphere Reserve with a total area of 1126 sq km. This represents 5% of the total atoll surface area of the Maldives.

Maldives has 140 operational resort islands. Each resort island has a reef and lagoon area around it legally leased to the resort. The "Regulation on the Protection and Conservation of the Environment in the Tourism Industry" requires all resort establishments to keep 80% of their land area un-built and the entire lagoon and reef area free from any type of extraction or exploitation. Therefore, these 140 islands, their lagoons and reefs are effectively managed and conserved and can fall under OECM.

Similarly 5 grouper aggregation sites in the country are protected from exploitation. Around 380 sites are listed as Environmentally Significant areas where any type of development will happen only if there are no other plausible options.

12. Preventing extinctions

Description how and to what extent the country has contributed to the achievement of this Aichi Biodiversity Target

The contribution of Maldives to the prevention of extinction of species can be best measured by the type and numbers of species which are legally protected in the Maldives.

Maldives ratified the CITES in 2013 and during the last CoPs have submitted 2 proposals to the conference for the protection of sharks and rays. Through collaborations of many like minded nations and NGOs the proposals were successful in the inclusion of many species in respective lists.

103 bird species are protected by law

All species of Turtles were protected in 2016.

Marine species totally protected in the Maldives include:

Black coral

Napoleon Wrasse

Turtles

Whale Shark

Conch (triton) shell

Whales

Giant Clams

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Dolphins

Lobster

White Tern

Rays and skates

All species of sharks

In addition the following species are export prohibited:

Bait fish (for pole and line fishing)

Big eye scad (less than six inches)

Black coral

Napoleon wrasse

Turtles

Whale shark

Branching coral

Conch (triton) shell

All types of coral

Whales

Giant clams

Dolphins

Eels

Lobsters and lobster meat

Skates and rays

Pearl oyster

Parrot fish

Puffer fish

It is widely believed that shark populations are recovering as well turtles. Turtle poaching still proceeds to some degree in the outer islands. The protection of turtle nesting beaches need to be strengthened. The threat to seabird populations remain the disturbances to their habitats. Sand banks are popular with tourist and local alike used for entertainment. The government has plans to protect one or more sand banks in each of the atoll.

13. Agricultural biodiversity

Description how and to what extent the country has contributed to the achievement of this Aichi Biodiversity Target

Agriculture contributes to about 1.2% of the GDP of the country. Geography of Maldives hinders large scale agriculture in the country. The staples used in Maldives, wheat and rice are imports. Majority of the fruits, vegetables and other dietary products are imports. The major agricultural produce in the country is coconut. Other types include tropical fruits and vegetables. Whole coconut is supplied entirely from domestic produce. 22 types of the imported vegetables are also grown domestically. 16 types of vegetables are produced in the domestic agriculture at a quantifiable scale. More information is available in the tables

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at http://statisticsmaldives.gov.mv/yearbook/2018/fisheries-agriculture/

Livestock is limited to small scale goat farming in few places across the country due to lack of land and feed. Poultry is practiced in backyards and in small scale farms throughout the country.

There is little record on the domestic varieties and cultivars of agricultural crops. Most of the varieties used in the domestic agriculture are imported and domesticated. Domestic varieties of coconut, breadfruit, mango, drumstick, chili, etc. are still preferred by locals, and hence remain in production. Majority of other crops are imported varieties.

There is no domestic law or policy currently in place to protect genetic diversity of domestic varieties of cultivated plants. The only measures in place are the limited land allocated for agriculture and the small scale it is currently undertaken.

14. Essential ecosystem services

Description how and to what extent the country has contributed to the achievement of this Aichi Biodiversity Target

Ecosystems that provide essential ecosystem services in the Maldives area coral reefs and oceanic pelagic ecosystems. The oceanic fishing industry is dominated by the tuna fisheries. The small scale tuna fisheries is the life line for many small island communities. The tuna fishing industry is of critical importance for food security and poverty alleviation.

Coral reefs provide shelter food water and security for island communities. Coral reef based tourism is the main source of foreign currency and government revenue. Coral islands store rain fed water in ground water aquifers. Water is used for household consumptions.

Protection and conservation of coral reefs and sustainable utilisation of the oceanic tuna fisheries are critical to safeguarding these ecosystems and serviced derived from them. It is widely recognised that skipjack tuna stocks are healthy and robust in the Indian

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Ocean. Maldives benefits from ecosystem services of the oceanic pelagic realm by the use of sustainable fishing methods. The pole and line fishing method for tunas ensures sustainability and reduces by catch and discards.

The coral reefs of the Maldives have been mapped and inventoried at different scales. Naseer 2004 mapped all coral reefs on the Maldives using Landsat ETM+ satellite imagery producing 6 major habitat classes. Reefs of Laamu Atoll were mapped to generated similar habitat classes (IUCN, 2015). The Millennium Coral Reef Mapping project provided map products at 30 meter resolution (Andrefouet et al 2006).

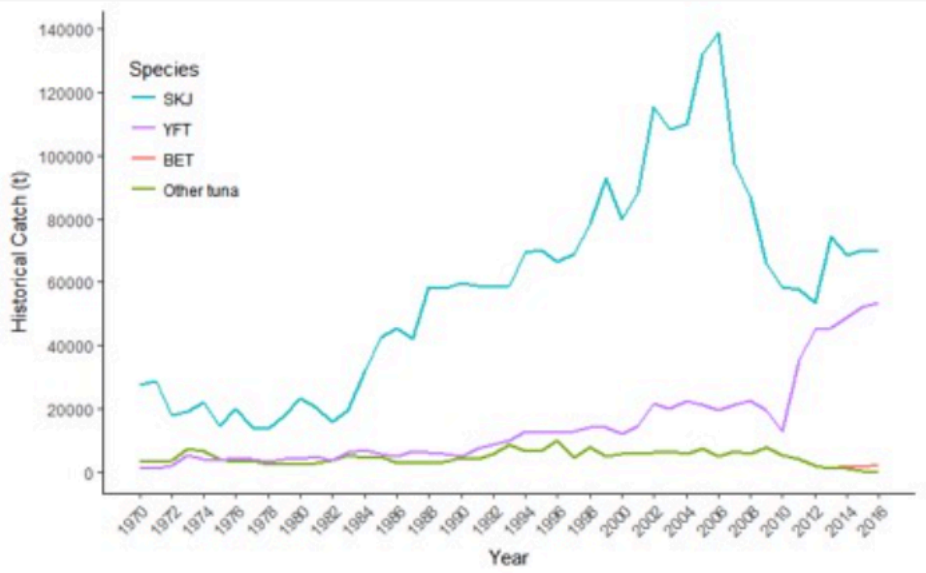
The ocean covers almost a million square kms of the Maldives' EEZ. Where as coral reefs cover 4500 sq km which is less than 1% of the total EEZ area of the Maldives. Humans have habited the atoll reefs of the Maldives for millennia. They have lived off reefs and have adopted a simple way of life that is in harmony with coral reefs. The intricate nature of community relationships and connections to coral reef biodiversity is well established. The ecosystem services provided by coral reefs are many and varied ranging from a place to live (build by reef sediments and replenished constantly by the growth and construction of health reefs), shelter and security, food and water in the form of ground water aquifers, baitfish and seafood, seagrass beds, mangroves and wetlands and many more. Coral reefs also provide a living, livelihoods, comfort and security to atoll communities. Maldivians have lived as small communities on coral reef islands (a product of the reef it sits on) as a content group of people living sustainably off the biodiversity of reef habitats around them.

The two aquatic ecosystems are protected by Environment Law 1993 and the Fisheries Law 1987. Many regulations have been formulated under these two umbrella laws.

An area of 300 sq km of coral reef are protected in the Maldives representing about 7% of the coral reef area. A biosphere reserve is set up on an atoll the size of which is 1200 sq km.

While the oceanic waters around the Maldives are considered healthy, coral reefs are facing a lot of challenges. The most destructive impact on coral reefs in the Maldives is the dredging and reclamation of coral reefs especially shallow reef lagoons. Most of such development related to tourist resorts. There 140 resort islands in operation in the Maldives and a further 133 are under development. The ecological footprint of resort development on these reefs is estimated at 550 sq kms of reef area. Humans habit on 186 reef islands representing about 400 sq kms of reef area.

The oceanic pelagic ecosystem regulate many aspects of biodiversity. Tuna fisheries represents the main ecosystem services with the oceanic realm. The tuna fisheries is and for the changes that takes place in the oceanic environments around the Maldives. The graph below show the historical catches of tuna species in the Maldives from 1970 to 2016.



15. Ecosystem resilience

Description how and to what extent the country has contributed to the achievement of this Aichi Biodiversity Target

Maldives is entirely built on coral reef and ocean ecosystems.The associated habitats of lagoons, mangroves, wetlands and islands contribute to the delicate and dynamic nature of the archipelago. Naturally, the islands continue moving, with changing seasons, the tides and waves shift large portions of coral sand from one side of the island to the other. New islands keep of being formed while other islands face severe erosion. These natural dynamics add to the unique nature of the island country.

The highest level of pressure on ecosystems in Maldives occurs through habitat change for infrastructure development. Waste dumping, including pollution from plastic are other major drivers of biodiversity and ecosystem loss.

There is very little restoration work done in major degraded habitats of the country. However, effective policy measures, laws and regulations have either put a halt or reduced impacts of certain human activities on the coral reef ecosystems.

Maldives is a country that was heavily dependent on reef rock, corals and coral sand for all infrastructure development. As a result by early 1980s most of the reef around inhabited islands were completely or partially mined leaving the entire reefs dead. A law was adopted in 1978 on banning all coral mining throughout the country and on banning sand mining in inhabited islands. Since then a regulation was adopted to regulate sand mining. Sand is still mined for large scale reclamation work and for other infrastructure development. However, the ban on coral mining has proven to be effective and most reefs recovered considerably well. There is no statistical data available on the level of recovery specific to inhabited islands. It is reported that reefs around the country had on average 50% live coral cover before 1998 mass coral bleach after which coral cover dropped to 10%. It was also reported that the first recorded mass coral bleaching event of 1998 killed 90% of live corals in shallow waters across Maldives (https://portals.iucn.org/library/sites/library/files/documents/2017-025.pdf). By 2013 live coral cover level was reported to have returned to 50%, the same level as pre-bleach level of 1998. Hence, it can be concluded that a complete ban on direct exploitation on reef mining has had a positive impact on coral reef restoration.

Other legal instruments such as EIA regulation, regulation on dredging, uprooting trees regulation, protection of beach vegetation, protection of vegetation around mangroves, and the waste regulation contributes to the recovery of important ecosystems. Isolated activities such as channel building for water circulation in mangroves, cleanup events of ecosystems have also had some level of positive impact.

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16. Nagoya Protocol on ABS

Description of how and to what extent your country has contributed to the achievement of this Aichi Biodiversity Target

At the time of this reporting, the Parliament of the Republic of Maldives has passed a decision to become a Party to the Nagoya Protocol on ABS. Thereby, the President of the Maldives has signed the Instrument of Accession which should soon lead to Maldives becoming a Party to the Protocol. Following this development, the Ministry of Environment is currently in the initial stages of developing a legal instrument on ABS and has hired a consultant to identify legal requirements and develop national legal framework. There are no other legal frameworks on ABS currently in the country. However, the legal framework on regulating marine research regulates some level of research within the country in that, only permit holders can to do research based on an approved scope.	EN

17. NBSAPs

Description how and to what extent the country has contributed to the achievement of this Aichi Biodiversity Target

Maldives revised its National Biodiversity Strategy and Action Plan as a 10 year frame work in 2016.	EN

18. Traditional knowledge

Description how and to what extent the country has contributed to the achievement of this Aichi Biodiversity Target

Little is recorded on traditional knowledge in Maldives. Some books on the island lifestyles describes traditional practices in the country. Very few have documented specific practices such as the traditional boat building, coir rope making, lacquer work. HCP Bell, a British Archaeologist, in his account of the Maldives described Maldivian culture as he saw it. Pyrad, a french explorer, in the 16th century wrote a book on his encounters in the Maldives where he was stranded for 5 years after a shipwreck. Recently a number of books on traditional medicine "Dhivehi beys" have been published. The National Archive of the Maldives is the government authority	EN

where all official, non-official and historical data and information is stored.

Traditional knowledge specific to biodiversity is not well documented or protected. There is no law or legal framework on traditional knowledge. However, an upcoming project through the 7th cycle of GEF on natural capital accounts will have its scope in traditional knowledge.

19. Biodiversity knowledge

Description how and to what extent the country has contributed to the achievement of this Aichi Biodiversity Target

Research in Maldives is limited. Data storage, management and monitoring is weak. The resources, including human capacities and technologies are limited for any type of knowledge management on biodiversity status and trends.

The Ministry of Fisheries, Marine Resources and Agriculture maintains updated data on tuna fishery as well as agricultural produce in the Maldives. The National Bureau of Statistics (NBS) maintain statistical year books where data on environment is updated annually. In this data book, the data on biodiversity is limited to protected areas, imports of various items including species and chemicals, fisheries and agricultural data and their relevant monetary data. These data are useful in understanding the many aspects of biodiversity, such as the import of chemicals gives an indication of the extent of chemicals used in agriculture and thereby changes in agricultural patterns in the country. The fish catch and their value data gives an understanding of the number of livelihoods depending on such resources and the changes in fish stocks.

Maldives developed a National GIS system with base-maps in 2013 through a project, however, due to lack of further funding and human capacities the outputs of this project were not well taken on board. Limited and outdated data is still available at NGIS http://www.onemap.mv/

Marine Research Center of Maldives has conducted few researches on turtles, sharks, sea cucumber, aquaculture, etc. although not on a continuous basis. Marine Research Center also monitors around 15 coral reef sites across Maldives. The data from these sites are used in understanding the health of coral reefs and impacts of various pressures.

Through a world bank project, an online "Coral Reef Monitoring Framework" was established recently. This is a citizen science based platform where coral reef related data including all aspects of corals, coral related habitats, pollution, species can be uploaded from

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anywhere by citizen scientists. The framework is yet to be publicly available.

In an effort to increase knowledge base on biodiversity, Ministry of Environment has launched a public portal dedicated to biodiversity knowledge and research. The aim of the Maldives Conservation Portal is to provide a single window platform for all biodiversity related data in the country for anyone interested. This recently published platform has more than 600 publications and more are being added. The link to the portal is https://maldivesconservationportal.org/.

In the past few years, communication and outreach has increased gradually through social media. Many active social media groups and NGOs use social media in creating awareness and sharing knowledge on biodiversity. Similarly, Ministry of Environment is active on social media in sharing knowledge and data.

Although the capacity of the Ministry of Environment is limited in data and knowledge management on biodiversity, data continue to be collected and managed for various purposes, including to produce the State Of the Environment Report of Maldives, National Reports on Biodiversity to CBD, National Communications to UNFCCC, etc. In an aim to enhance biodiversity related knowledge and data management, Ministry has initiated a project through GEF7 funding on Natural Capital Accounts. The aim of this project is to develop a natural capital accounts platform on biodiversity and ecosystem services and to integrate this accounts into Environmental Accounts currently being developed by National Bureau of Statistics.

20. Resource mobilization

Financial Reporting Framework

https://chm.cbd.int/database/record/208210 Financial Reporting Framework: Reporting on baseline and progress towards 2015

Section V. Description of the national contribution to the achievement of the targets of the Global Strategy for Plant Conservation

Maldives does not have national targets related to the GSPC Targets

1. An online flora of all known plants

2. An assessment of the conservation status of all known plant species, as far as possible, to guide conservation action

3. Information, research and associated outputs, and methods necessary to implement the Strategy developed and shared

4. At least 15 per cent of each ecological region or vegetation type secured through effective management and/or restoration

5. At least 75 per cent of the most important areas for plant diversity of each ecological region protected with effective management in place for conserving plants and their genetic diversity

6. At least 75 per cent of production lands in each sector managed sustainably, consistent with the conservation of plant diversity

7. At least 75 per cent of known threatened plant species conserved in situ

8. At least 75 per cent of threatened plant species in ex situ collections, preferably in the country of origin, and at least 20 per cent available for recovery and restoration programmes

9. 70 per cent of the genetic diversity of crops including their wild relatives and other socio-economically valuable plant species conserved, while respecting, preserving and maintaining associated indigenous and local knowledge

10. Effective management plans in place to prevent new biological invasions and to manage important areas for plant diversity that are invaded

11. No species of wild flora endangered by international trade

12. All wild harvested plant-based products sourced sustainably

13. Indigenous and local knowledge innovations and practices associated with plant resources maintained or increased, as appropriate, to support customary use, sustainable livelihoods, local food security and health care

14. The importance of plant diversity and the need for its conservation incorporated into communication, education and public awareness programmes

15. The number of trained people working with appropriate facilities sufficient according to national needs, to achieve the targets of this

Strategy

16. Institutions, networks and partnerships for plant conservation established or strengthened at national, regional and international levels to achieve the targets of this Strategy

Section VI. Description of the national contribution to the achievement of the targets of indigenous peoples and local communities

No information available

Section VII. Updated biodiversity country profile

Biodiversity facts : Status and trends of biodiversity, including benefits from biodiversity and ecosystem services and functions:

Biodiversity and ecosystems directly benefit the health, well-being and economic prosperity of the Maldives and are an integral part of the cultural and social lifestyle of Maldivians, who inhabit these small tropical islands located in the Indian Ocean. From coral reef and island-based tourism, to tuna fishery, the Maldives is highly dependent on biodiversity for employment, food security, quality of life, aesthetics, recreation, and sustainable livelihoods. As such, the Government of Maldives fully recognizes the need for the conservation of biological diversity.

The Maldives is a nation of 1,192 small low-lying tropical islands in an archipelago of 26 tropical coral atolls. The

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total land area is estimated to be approximately 227 km, and more than 90% of the islands are less than 0.5 km in area. The islands of the Maldives are flat and low-lying. Over 80% of the total land area of the country is less than one meter above mean sea level.

Maldives has a tropical monsoon climate. The mean daily maximum temperature is 30.7 C with an annual average rainfall of 2,124 mm. Rainwater percolates through the highly porous coral sand and forms a freshwater lens above the seawater.

There are no rivers in the Maldives and surface freshwater is generally lacking throughout the archipelago. Some of the larger islands have small fresh-water lakes, with some containing swampy depressions, and some having brackish water ponds with mangroves along the edges. The soils in the Maldives are geologically young and consist of substantial quantities of the unweathered coral parent material, coral rock and sand. The soils are alkaline with pH values between 8.0 and 8.8.

Despite the poor and infertile soils, Maldives has a diverse vegetation cover. The flora of the country consists of 583 vascular plants. Of these, 323 (55%) are cultivated plant species while 260 are native and naturalized plants. Mangrove ecosystems in the Maldives consist of 14 species belonging to 10 genera. The mangroves also have 37 species of fungi associated with them.

In comparison to the rich terrestrial faunal diversity of the region, the Maldives is not known for abundant wildlife. In a study conducted on fruit bats and birds of the Maldives, specimens of insects, arachnids and mollusk were collected. It was found that Maldives is particularly rich in species of spiders. Some 130 insect species such as scorpions, centipedes, rhinoceros beetle and paper wasps have been identified in the Maldives. The only native mammals endemic to the country are the two subspecies of fruit bats, *Pteropus giganteus ariel* and *Pteropus hypomelanus maris.* The latter is very rare and has been recorded only once in Addu City.

Over 167 species of birds have been recorded in the Maldives comprising of seabirds, shorebirds and terrestrial birds. They include breeding residents, southern winter visitors (shearwaters and storm-petrels), and northern winter visitors (mostly waders, raptors and passerines as well as some terns).

The coastal and marine ecosystems of the Maldives, in particular, the coral reef ecosystems are globally significant. They form the seventh largest reef system in the world and the coral reefs of Maldives represent as much as 5% of the world's reef area. In the 26 natural atolls of the Maldives there are 2,041 distinct coral reefs. The marine biological diversity is outstandingly rich, especially within the coral reefs, making them one of the world's most diverse marine ecosystems. In the Maldives, 258 species of hermatypic corals and 36 species of sponges are found. Altogether 285 species of algae, five species of sea grass, 400 species of molluscs, 350 species of crustaceans and 80 species of echinoderms have been documented.

The Maldivian waters have a high diversity of cetaceans with 20 species having been sighted. Over 1,090 species of fish have been recorded in the Maldives, with the most diverse group of fishes being gobies (90 species), followed by wrasses and groupers (70 and 40 species respectively). Nearly 40 species of sharks and 16 species of skates have been recorded. Five species of marine turtles occur in the Maldives: the green turtle (*Chelonia mydas*), the hawksbill turtle (*Eretmochelys imbricata*) the olive ridley (*Lepidochelys olivacea*), the leatherback turtle (*Dermochelys coriacea*) and the loggerhead turtle (*Caretta caretta*).

The reef ecosystem of the Maldives has internationally threatened populations of hawksbill and green turtles and is reported to be one of the most important feeding areas for hawksbill turtles in the Indian Ocean. The atolls of the Maldives are also home to globally significant populations of whale shark (*Rhincodon typus*), manta rays (*Manta birostris*), reef sharks and more than 20 species of whales and dolphins. Other globally significant coral reef species include the Napoleon wrasse (*Cheilinus undulatus*), giant grouper (*Epinephelus lanceolatus*), giant clam (*Tridacna squamosa*) and black coral (*Antipatharia*). The Maldives Blenny (*Ecsenius minutus*) has so far been identified only in the Maldives, while the distribution of certain species, like the Maldivian anemone fish (*Amphiprion nigripes*) is restricted to the Maldives, Laccadives and Sri Lanka.

Coral reef ecosystems play a key role in enabling human settlements in the Maldives through climate regulation, storm buffering, and coastal protection. The reef functions as natural sea defences for islands highly vulnerable to climate change. The cost of artificial replacement of coral reef to provide protection for the perimeter of the 193 inhabited islands in the Maldives is estimated to be between MVR 20 billion and MVR 34 billion.

Fish, particularly tuna, is the primary source of dietary protein for the Maldivians. Tuna is served with almost every meal. The fresh tuna supplied from the Maldives account for more than 15% of fresh tuna imported to the European Union.

The country relies heavily on the direct benefits to the economy from marine and coastal biodiversity. It is estimated that biodiversity based sectors contribute to 98% of exports, 89% of Gross Domestic Product (GDP), 71% of national employment, 62% of foreign exchange and 49% of public revenue. Biodiversity makes a significant contribution to government revenue through both tax and non-tax revenue from economic sectors dependent on biodiversity.

Maldives Overall Map Final.pdf

Mangrove and Wetland Areas.pdf

Reef Areas.pdf

Island Use Types Map.pdf

Main pressures on and drivers of change to biodiversity (direct and indirect)

The pristine marine ecosystems of Maldives are being threatened by natural factors such as climate change and related factors such as coral bleaching. They are also threatened by anthropogenic activity such as tourism and over-exploitation without consideration given to biodiversity. Pollution from uncontrolled waste disposal, untreated sewage and land reclamation and channel building are major threats to the biodiversity. However, turtle and shark fishing have been banned, as has coral mining. Threats or pressures on terrestrial biodiversity include damage due to unsustainable agricultural practices, such as overuse of chemical fertilizers and pesticides, removal of vegetation for infrastructure and human settlement, and developmental practices.

Reef Reclamation is a major threat to marine biodiversity in the Maldives. More than 1,200 hectares of reef have been reclaimed to provide for the the growing populations and economic development such as tourism.

Direct exploitation of fish such as that in targeted reef fishery of groupers and other marine species causes threats to marine biodiversity. Maldives practice sustainable pole and line fishery for tuna fishery, however, other type of fishery is not equally managed

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Threats resulting from Climate Change such as the increase in Sea Surface Temperature, Ocean acidification, increased frequency of extreme weather events and altered rainfall patterns poses serious threats to biodiversity in the Maldives. Corals face high levels of bleaching due to the thermal limits in increased frequency

Coastal and marine pollution, particularly in the form of plastic and non-biodegradable waste, sewage and oil adversely impact marine biodiversity. Maldives also sees some level of fertilizer runoff.

The terrestrial biodiversity is equally under threat due to the demand for land for population growth, infrastructure development and other economic activities.

Implementation of the NBSAP

In line with the Strategic Plan for Biodiversity 2011-2020 and its Aichi Biodiversity Targets, Maldives revised the National Biodiversity Strategy and Action Plan in 2016. The revised NBSAP is a 10 year plan from 2016 to 2025 and has 26 targets under 6 Strategies. The new NBSAP has 3 basic principles: 1) The people of this generation and the generations to come reserves the right to access and share benefits of rich biodiversity and ecosystem services, 2) Responsibility of conserving and sustainably using biodiversity lies on everyone's shoulders and shall be taken as a shared responsibility, and 3) Biodiversity shall be mainstreamed into all sectors and in a manner whereby monitoring progress and accountability is ensured.

In the past 3 years, since the adoption of the NBSAP, there has been some progress in achieving the targets with different targets showing different level of achievement. The major set backs in implementing the NBSAP are the lack of capacities, inadequate financial resources as well as the extremely lengthy procedures in accessing these resources.

The national targets on governance, awareness, communication, and capacity building has seen some level of progress. Maldives has always remained an environment friendly nation in some of the major economic activities such as the fisheries where all tuna are caught using pole and line, as well as in the tourism sector which heavily depends on the natural environment. Hence, the targets on sustainable use of biological resources has shown consistent progress. However, the targets to address direct drivers of biodiversity loss have little been addressed, while in most cases, the impact of such drivers has significantly increased.

The number of protected areas has gradually increased with at least 6 new areas being declared protected in the past 8 months, and 24 new areas currently in their final stages of approval. The new administration of Maldives that came into office in late November 2018 had pledged to protect at least 1 island, 1 reef and 1 mangrove, in addition to the already protected areas, in the 20 administrative atolls of Maldives. If this pledge is achieved, the NBSAP targets on protected areas will be achieved.

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Information management related targets on NBSAP show slow progress as data and information, especially based on natural capital accounts and biodiversity are scarce and requires significant amount of resources and time to establish such information system. Mobilization of resources to achieve all targets still remain inadequately achieved. The present government has established a Trust Fund for environment which direct finances from Green Tax to fund environment related activities. The Trust is only been established at the beginning of 2019 and is yet to take into effect.

Overall actions taken to contribute to the implementation of the Strategic Plan for Biodiversity 2011-2020

The Maldives has made progress in achieving success in a number of global goals and targets, with 50 protected areas as of December 2018, covering over 27,569 hectares of marine area and 273 hectares of land area, currently protected under the Environment Protection and Preservation Act 4/93 (this figure includes marine and terrestrial protected areas). A list has been established which identifies 387 areas rich in biodiversity as sensitive areas. These include possible fish breeding areas, bird sanctuaries, micro atolls, islands, mangroves and marine areas. In addition, turtles, tortoise, all types of rays and skates, as well as 103 types of birds including all migratory birds are protected under the same Act. Certain rare species that are likely to be threatened or endangered are prohibited from being exploited and exported. Harvesting sea turtle eggs is prohibited throughout the country. Whale Shark, all types of sharks, whales, dolphins, Napoleon Wrasse, all stony corals, giant clamps and queen conch are protected and banned for any type of exploitation. A Manta Ray and Whale Shark aggregation area (the “Hanifaru”) was declared a marine protected area in 2009 and a management plan has been in effect since 2013. One key outcome of the Atoll Environment Conservation (AEC) Project funded by the Global Environment Facility which has supported biodiversity-related projects, was the declaration of Baa Atoll (one of the 20 administrative atolls) a UNESCO Biosphere Reserve in 2011. Regulations and efforts have been made to reduce pollution through waste management measures, roadworthiness requirements, applying ICAO standards for air quality and IMO standards for marine pollution control and biosafety.

Maldives has adopted many environment related policies, strategies and action plans including the Maldives Climate Policy, Waste Management Policy, Fisheries Master Plan and Tourism Master Plan which all has biodiversity conservation integrated into them. Maldives has also adopted a National Environmental Health Action Plan 2015-2020 and is currently developing the National Development Plan (NDP) which will serve as the overarching development plan of the country. The NDP is expected mainstream environment and biodiversity into all developmental sectors.

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Support mechanisms for national implementation (legislation, funding, capacity-building, coordination, mainstreaming, etc.)

Very little of the country’s biodiversity is currently protected. Policies and action plans regarding the management and integration of protected areas exist in all key national policy documents, such as the National Biodiversity Strategy and Action Plan (NBSAP) and National Development Plans (NDPs). Most existing measures and policies on protected areas in the NBSAP are being implemented through the Ministry Environment. The Maldives has adopted a regulation for protected areas in 2018. Protected status has been granted to 50 areas including dive sites, mangroves and some ecologically significant islands, 103 species of birds, 14 marine species and black turtles. 5 of the protected areas are regulated under a Management Plan or Regulation. The EIA regulation needs further strengthening to ensure minimal impacts on biodiversity and accountability for liability and redress. The Environmental Protection and Preservation Act (4/93) is the main legislative framework for biodiversity conservation in the Maldives. In addition to the regulations mentioned above, many regulations have been developed under the Act including the migratory birds regulation, the liability regulation on environment, the regulation on uprooting trees..etc.

Environmental protection currently accounts for an extremely low share of the budgets of the Government and overseas donors. The government has established, in early 2019, a trust fund called Maldives Green Fund through tax money generated from Green Tax. The resources of Green Fund is expected to be used for environmental conservation and protection. However, the modalities of the fund is yet to be established, and the fund is yet to come into effect. It is anticipated that a percentage of this financing will be directed towards biodiversity. There is currently a need to create a variety of financing mechanisms, notably between the Ministries of Finance and Treasury, and other relevant implementing agencies. Through the "Atoll Ecosystem Conservation" project, Maldives has established a Conservation Fund for Baa Atoll to fund conservation and many other sustainable activities in Baa Atoll. Similar funds were established for the Addu Nature Park and Fuahmulah Nature Park in the latter part of 2018. However, these funds lack sustainable sources of funding to adequately finance the conservation work in the Biosphere Reserve or Nature Parks.

There are increasingly more attempts to raise public awareness of biodiversity issues. In Maldives, biodiversity is taught through the subjects of Environmental Science and which is incorporated into all levels of school systems. Additionally, environment-related issues are incorporated into education programs for primary and secondary teachers. The Maldives National University runs an undergraduate degree course on Environmental Management. " Farukoe" the year long programme conducted by Ministry of Education in 2018 aimed at generating environmental awareness, especially on coral reefs, among all students of primary and secondary level. Information on biodiversity issues is provided in the media (television, radio) and on the Internet and, more recently, social media has become an effective means of communicating to the public.

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Mechanisms for monitoring and reviewing implementation

NBSAP 2016-2025 has identified targets, actions to achieve those targets as well as indicators to monitor the progress towards the achievement of the targets. However, currently no coordination system is in place which helps monitor and review implementation of the NBSAP. It is hoped that regular monitoring and review mechanisms for the National Biodiversity Strategy and Action Plan can be established through a focus on community participation and stakeholder engagement in line with the SDG monitoring mechanisms. Further, a National Development Plan currently being developed is expected to incorporate NBSAP targets and is expected to have its own monitoring mechanism well established.	EN