

6th National Report on the Implementation of the Convention on Biological Diversity (CBD)



United Republic of Tanzania

Abbreviations and Acronyms

Glossary of Terms

NBSAP

CBD

COP

DFSD

MATT

NEAP

TAWA

TFS

WIOLME SAPPHIRE- Western Indian Ocean Marine Ecosystem Strategic Program,
Policy Harmonization and Institution Reform

REGROW Resilient Natural Resources for Tourism and Growth,

KILORWEMP - Kilombero and Lower Rufiji Wetland Ecosystem Management,

ASDP II - Agricultural Sector Development Programme Phase Two

Reversing Land Degradation Trends and Increasing Food Security in Degraded

EBARR - Ecosystems of Semiarid Areas of Tanzania, Ecosystem Based Adaptation for
Rural Resilience in Tanzania

SWIOFish - South West Indian Ocean Fisheries Governance and shared Growth

NETF - National Environment Trust Fund

TaFF -Tanzania Forest Fund

TARI

TARIRI

COSTECH

ZARI

Foreword

Tanzania as a mega biodiversity country in the world plays a major role in ensuring that the integrity of biodiversity and functionality of its ecosystems serve humanity for undimishing future.

The Tanzania Development Vision (TDV) 2025 articulates the desirable future and road map to be taken for the nation to graduate from a developing country to a middle-income country. Tanzania attributes a high quality livelihood; a well-educated society; peace, stability and unity; good governance and the rule of law and unity and strong and a competitive economy as being prerequisite for attaining its vision. Biodiversity conservation is implied in sustainable attainment of the vision. In this regard sustainable utilization of aquatic and terrestrial resources is of paramount importance in achieving the national long term development vision. Endowed with rich and diversity of both aquatic and terrestrial resources, the country needs to ensure that these vital resources are protected and conserved for them to continue supporting livelihoods and well-being of the people and at the same time contributing to economic prosperity of the country. This can be attained by among other things, having a robust and effective legal framework that governs exploitation of aquatic and associated terrestrial resources.

Forest provide not only the wood we use for paper and furniture, but also regulate water cycle, prevent soil erosion, protect watersheds, provide a habitat for wildlife and forest communities, sustain biodiversity, supply food and shelter, provide oxygen and mitigate climate change. Tanzania Mainland has 48.1 million hectares (ha) of forests and woodlands, representing about 55% of the total land area. Despite richness of the forest resources, forest ecosystems are in increasing threat due to deforestation which is currently estimated at the rate of 469,420 ha per year. On the other hand unsustainable agricultural practices and grazing pressure have been contributing to land degradation in many parts of the country leading to poor agricultural productivity and loss of agro-biodiversity. This has also led to fragmentation of natural habitats and consequent biodiversity loss in Tanzania.

Further to these, Despite its biodiversity richness, Tanzania is experiencing increasing threat on biodiversity due to a number of natural and human drivers, including economic growth, population growth, poverty, global trade in plant and animal species and climate change. These threats (drivers) are largely responsible for the loss of biological resources and ecological processes in the country. Ecosystems such as forests, wetlands, and dry-lands are transformed and, in some cases, irreversibly degraded.

In order to address these challenges there is a need to strengthen implementation and enforcement of agriculture and biodiversity related policy and legal frameworks which promote sustainable management of forests, agriculture and aquaculture ecosystems.

Addressing the aforementioned challenges there is a need to improve governance in fisheries management along coral reefs and closely associated ecosystems, by assessing and manage land-based and sea-based sources of pollution, strengthening co-management strategies, integrating and implementing watershed and marine management, manage coastal development, building capacity for institutions and human resource dealing with the management of coral reefs and its closely associated ecosystem. Furthermore, the government is working towards effective adaptive measures including developing guidance to address the most pressing impact on priority fisheries.

Carrying out inventories and conducting assessments to set baselines to determine the state of biodiversity and highlight trends is of paramount importance. Inventories also help to identify species that require special attention e.g. threatened species, and the establishment of the National Red data Book. Development and implementation of species monitoring, conservation and recovery program for endangered and threatened species is one of the important ways Tanzania can conserve biodiversity.

Other activities contributing to the achievement of the Aichi Biodiversity Target at the global level are the promotion of Community Based Natural Resources Management (CBNRM) which entails the use of traditional knowledge in managing natural resources, Wildlife Management Areas (WMAs) which facilitate the conservation of wildlife traditionally, Community Based Forest Management (CBFM) and Beach Management Units (BMUs). These arrangements promote the use of traditional knowledge in the conservation of biodiversity. Due to a challenge of inappropriate documentation and dissemination.

Acknowledgement

This report is a result of a long process of consultations involving many individuals and organisations, too numerous to mention by name. The government acknowledges all those who availed their time and material support to make this document possible.

We wish to express our profound gratitude to all government ministries, Departments and Agencies particularly to the Ministries of Lands and Human Settlements; Ministry of Trade and Industries; Foreign Affairs and International Cooperation; Agriculture and Food Security; Water and Livestock Development; Community Development, Women Affairs and Children; Works; Finance; Natural Resources and Tourism; Energy and Minerals; and the Planning and Privatisation. Special thanks also go to key Research and Development Institutions: Commission for Science and Technology (COSTECH); Tropical Pesticides Research Institute (TPRI); Agricultural Research Institute of Lyamungu Tengeru and Training Institute; Livestock Research Centre in West Kilimanjaro; Serengeti Wildlife Research Institute, Arusha (WRIA); Sokoine University of Agriculture and the University of Dar Es Salaam.

Several Non-Governmental Organisations (NGOs) just to mention a few: WWF who along with Government Projects and institutions such as Tanzania National Parks (TANAPA) and Tanzania Wildlife Co-operation (TAWICO) made invaluable contribution in translating the consultations into this valuable strategy.

We acknowledge the tireless efforts of the Technical Committee Members and the experts (.....) who, carried out the consultations but also participated in drafting of this document. The team of experts, under the leadership of Prof. William J. Mwegoha, Director of Environment, Vice President's Office.

The government is also indebted to the UN-Environment and the Secretariat of the CBD for providing their technical guidance throughout this process. The government also wishes to express thanks to the Global Environmental Facility (GEF) for financial support which has been instrumental in the formulation of this document.

1. Introduction

Tanzania is one of the mega-biodiversity countries in the world such that, out of 25 globally known biodiversity hotspots, Tanzania harbours six. This includes: the Eastern Arc old Block- Mountain Forests; the coastal forests; the Great Lakes for Cichlid fishes; the marine coral reef ecosystems; the ecosystems of the alkaline Rift-Valley Lakes; and the grassland savannas for large mammals (e.g. the famous Serengeti National Park). About 43.7% of the total land area in Tanzania is protected or conserved. Protected areas (including Game Controlled Areas) cover at least 28% of the total land area of the country and forest reserves around 15.7%. However, protection of wildlife outside protected areas is still a challenge.

Tanzania also possesses important populations of species that are globally endangered and threatened. The species include: black rhinoceros, wild dog, chimpanzee, African elephant, cheetah, shoe-bill stock, red colobus monkey and wattled crane. A significant amount of the wildlife area is mainly within the savannah grasslands characterized by dry miombo woodlands. The contribution of tourism to the GDP is about 20% , and to the larger extent this revenue comes from wildlife based tourism. Natural forests found in Tanzania are of three main types, namely: miombo woodlands, montane forests and mangroves. Most of the montane forests possess high water catchment value, making it a main source of major rivers. Field stocks of *Oryzias latipes* have greatly diminished and human pressure over this species is so massive that it threatens to wipe out the species unless urgent silvicultural treatments are carried out. Besides the decline in the area covered by mangroves, there has also been a considerable decline in the density, height and canopy cover of mangroves.

Tanzania is rich in wetland resources which comprise about 10% of the country's land, including the great lake system, inland drainage systems, major river networks and deltaic mangroves. Wetlands are among the most productive ecosystems; they are

vital for electricity production, groundwater recharge, flood control, water retention and prevention of eutrophication of rivers and lakes, while supporting specific biota and traditional uses. Until some decades ago, many of the wetlands were automatically protected by their remoteness, vastness and marginal usefulness for agriculture or other economic activities. However, as a result of various socioeconomic developments, rapid conversion of wetlands in the country has recently occurred which is contributing to their degradation. With about 80% of the country's population depending on subsistence agriculture, competition (between livestock, wildlife and crop cultivation) for land resources has become rather common. One of most commonly practiced types of farming system is shifting cultivation (which contributes to Environmental degradation). Poor small-scale farmers are completely dependent upon the harvest of uncultivated natural resources for energy and building materials.

1.1 Pressures on and drivers of biodiversity loss

The core challenges facing biodiversity among includes: overgrazing, resource over-exploitation, bush fires and over-dependency of fuel wood for domestic use. Other factors affecting biodiversity and conservation include: poverty, inadequate information on genetic resources, inadequate awareness of communities on biodiversity conservation, inadequate alternative energy sources, influx of refugees, proliferation of alien species {e.g. Nile perch (*Lates niloticus*), water hyacinth (*Eichhromia crassipes*)}, some illegal fishing, cultural belief, degradation of water quality, deforestation, illegal hunting and logging, unplanned human settlement developments and livestock migration. The major immediate causes of mangrove forest degradation are the overharvesting of mangrove for firewood, charcoal-making, building poles and boat construction (which together account for about 46%), while the clear-cutting of mangrove for agriculture, solar salt production, road construction, urbanization and hotel construction account for another 30%. The main threats to the marine and coastal ecosystems include decline of marine and coastal living resources, destruction of coral reefs, coastal pollution and erosion. Much of the degradation of reef ecosystems has been caused by destructive fishing methods. The most destructive fishing practice is the use of dynamite which has been practiced in some parts of Tanzania for over 40 years. However, dynamite fishing has currently been reduced throughout the country as a result of strengthened enforcement of regulations, public awareness and establishment of Multi-Agency Task Team (MATT) which combat environmental and wildlife crime among others. The use of small mesh seine nets to capture fish on the bottom and around reefs is almost as destructive as the use of dynamite.

The biodiversity in the agricultural ecosystem is threatened by climate change, pests and diseases, improper use of agro-chemicals which endanger pollinators and other beneficial not target organisms. In addition, improper disposal of domestic and industrial waste on land and water bodies contributes to pollution of surface and ground water sources.

1.2 National Biodiversity Strategy and Action Plan NBSAP

Tanzania revised and adopted its National Biodiversity Strategy and Action Plan (NBSAP) in 2015. The NBSAP is a strategic instrument aimed at guiding the conservation and sustainable use of biodiversity in three broad thematic areas (aquatic biodiversity, agro-biodiversity, terrestrial biodiversity). The strategy identifies several priority actions such as: implementation of policy and regulatory frameworks; enhancing regional and international cooperation; planning and coordination; education and information; research and development; ecosystems and species conservation and sustainable utilization; biodiversity monitoring and evaluation and capacity building.

1.3 Measures taken to implementation the NBSAP

Tanzania has taken several initiatives to ensure biodiversity conservation. Among these initiatives are the development and review of various sectoral Policies to mainstream biodiversity issues in the plans and programs. Formulated Policies include National Fisheries Policy 2015 and the policies under review include National Environmental Policy, Forest Policy, Education and training Policy, National Water Policy and Land Policy. The review of these policies intends to provide comprehensive and clear guidance on matters related to Biodiversity conservation in the country and therefore contribute to the implementation of NBSAP.

1.3.1 Strategic Interventions

Several Strategies and action plans have been developed and implemented aimed at conservation of biodiversity. These strategies and action plan includes; Strategy and Action Plan on Invasive Alien Species (2019 - 2029), the revised National Environmental Action Plan (NEAP), the revised National Strategy on urgent Actions for Conservation of Land and water Catchments and the revised National Strategy for Conservation of Marine coastal environment, Lakes, rivers and dams. National Anti-poaching Strategy 2014, Biosphere Reserve Strategy 2019, Species Management Action Plan 2018, Agriculture Climate Resilience Plan 2014, Integrated Pest Management Plan 2014, Fisheries Sector Development Strategy 2018, Agricultural Sector Development Strategy 2016, Deep Sea Fishing Strategy 2015 and National Aquaculture Development Strategy 2018. These strategies and action plan facilitated the implementation of the National Biodiversity Strategy and Action Plan (NBSAP).

1.3.2 Institutional Reforms

In order to ensure biodiversity conservation is integrated and strengthened in various sectors, several institutions have been established. These institutions include Tanzania Wildlife Management Authority (TAWA), 2016 and Tanzania Agricultural Research Institute (TARI) 2018), Zanzibar Agricultural Research Institute (ZARI), Tanzania Forest Services (TFS). Establishment of these institutions enables more effective enforcement of policies and legislations on biodiversity conservation whereby contributing to the implementation of NBSAP.

1.3.3 Regional and Bilateral Cooperation on Management of Trans-boundary Biodiversity Resources

In ensuring the appropriate management of trans-boundary biodiversity resources, Tanzania has enhanced cooperation with neighboring countries and put in place

various measures for management of the trans-boundary biodiversity resources. These include Memorandum of Understanding (MoU) between Mozambique and Tanzania on full protection of movement of elephants - Selous game reserve (Tanzania) and Niassa (Mozambique), MoU between Tanzania and Kenya on cross-border wildlife security, Songwe River Commission (Malawi and Tanzania).

1.3.4 Designation of Protected Areas

To ensure total protection of fauna and flora and full protection of movement of elephant from Selous Game Reserve and Niassa in Mozambique, the two corridors have been identified to be game reserves as a measure to address trans-boundary biodiversity loss. In addition, Gombe-Masito-Ugala and Jozani-Chwaka bay have been nominated as Man and Biosphere reserve areas. Furthermore, three game reserves (Burigi, Biharamulo, Kimisi) have been designated as National Parks and two corridors of Litumbandyosi and Gesimasowa into Game reserve to enhance the conservation measure.

1.3.5 Formulation and Review of Biodiversity-Related Legislation

Tanzania is committed to enhance biodiversity conservation and has taken a number of measures including formulation of new and reviewing some of the existing legislations in order to enhance biodiversity management. The revised regulation is Biosafety Regulations, 2015 and developed regulation is wildlife corridors regulations 2017 which aimed at protecting the pathways of animals from one ecosystem to another. Furthermore, legislation which are under review include; Water resources management Act, Agriculture Land Management Act, Aquaculture Act, Plant Protection Act (PPA), Fisheries Act, Deep Sea Fishing Authority (DSFD) Act, National Fisheries Act and Marine Park and Reserve Units Act .This review intended to enhance generation of scientific and technical information which inform decision makers on good practices for conservation of biodiversity as well as facilitating implementation of the NBSAP.

1.3.6 Programs and projects

Several programmes and projects have been formulated and implemented to enhance biodiversity conservation in different ecosystems in the country; these include Supporting the implementation of integrated ecosystem management approach for landscape restoration and biodiversity conservation in Tanzania 2019-2023, Western Indian Ocean Marine Ecosystem Strategic Program, Policy Harmonization and Institution Reform (WIOLME SAPPHERE) Resilient Natural Resources for Tourism and Growth (REGROW), Kilombero and Lower Rufiji Wetland Ecosystem Management (KILORWEMP), Agricultural Sector Development Programme Phase Two (ASDP II), Lake Nyasa Catchments Sustainable Land Management, Addressing Climate Change Adaptation in Productive Coastal Zone of Tanzania, Adaptation Measures to Reduce Vulnerability of Livelihoods and Economy of Coastal Communities of Tanzania, Reversing Land Degradation Trends and Increasing Food Security in Degraded Ecosystems of Semiarid Areas of Tanzania, Ecosystem Based Adaptation for Rural

Resilience in Tanzania (EBARR) and South West Indian Ocean Fisheries Governance and shared Growth (SWIOFish). The implementation of these programs and projects has enhanced sustainable management and resilience of ecosystem and their different services from, water, land and forest as a means to address biodiversity loss.

1.3.7 Enhancing Financial Mobilization

Effective implementation of biodiversity conservation measures depends on various sources including government subventions, bilateral and multilateral agreements, grants, private sector and individual contributions. The current potential sources include National Environment Trust Fund (NETF), Tanzania Forest Fund (TaFF) and Tanzania Tourism Fund. These funds have been established to facilitate different initiatives geared to implementation of NBSAP.

1.4 Participation of Tanzania in Global Biodiversity Processes

Tanzania is a Party to the Convention on Biological Diversity (CBD) since May 1996, and thus joins the international community to conserve its biodiversity as a global resource. The country realises the need to conserve biodiversity and has taken a number of initiatives to ensure this. The objective of the Convention is to promote the conservation of biological diversity; sustainable use of its components; and the fair and equitable sharing arising out of the utilization of genetic resources

In 2011, together with the rest of the contracting party to the CBD during its 10th meeting made a decision to pass the Global Strategic Plan for Biodiversity 2011-2020, which included twenty biodiversity targets, known as the Aichi targets. In pursuit to implement this global strategy, CBD parties were required to develop National Biodiversity Strategy and Action Plan (NBSAPs) which among others set national targets as a customization of the Aichi targets. The NBSAP 2015-2020 therefore, sought to address national biodiversity targets that serve to address national priorities and contribute the global targets.

Therefore, the NBSAP 2015-2020 addresses among other things, a number of emerging issues such as climate change and variability, invasive species, GMOs, biofuel development, mining, oil and gas exploration and continuous anthropogenic impacts which biodiversity at stake.

Furthermore, Tanzania is also actively participating in various regional and international biodiversity platforms including CBD subsidiary bodies and its Protocols, Conference of Parties (COPs) and Conference of the Parties Serving as Meeting of Parties (COP-MOPs). Tanzania has ratified the Amended Nairobi Convention for the Protection, Management and Development of the Marine and Coastal Environment of the Western Indian Ocean in 2017. Tanzania is also a contracting party to other biodiversity related conventions, these include: CMS, CITES, UNCCD, UNFCCC

2 6th National Report on the Implementation of the CBD

Preparation of this report emanates from Article 26 of the Convention which requires each contracting party to prepare and submit their national reports on the implementation of the convention. The information in the reports informs on measures which have been undertaken for the implementation of the provisions of the Convention and their effectiveness in meeting the objectives of the Convention. In addition, the process encourages Parties to integrate consideration of the conservation and sustainable use of biological resources into national planning and decision-making processes which may affect the wellbeing of biodiversity in one way or another.

2.1 Purpose of the Report

The purpose of this summary is to provide a quick snapshot on status and trends of Biodiversity in the country; measures undertaken and their effectiveness in achieving the national biodiversity targets set for a period of 5 years since the adoption of the National Biodiversity Strategy and Action Plan (NBSAP 2015-2020). More importantly, the report serves as an important tool for planning and decision making process on matters related to biodiversity at the local and national levels; moreover it provides general over view on the Tanzania's' contribution to the realization of Aichi Global Biodiversity Targets.

Specific objectives of this summary report are to provide a quick updates on:

- i. the status and trends of, and threats to, and its implications of
- ii. changes in biodiversity;
- iii. the implementation of the NBSAP (2015-2020) focusing on actions taken,
- iv. outcomes and the extent to which the related objectives and targets have
- v. been met;
- vi. the contribution of national efforts to the achievements of the global Aichi targets and the Global Strategy on Plant Conservation (GSPC)
- vii.

2.2 Process

The assessment of the effectiveness of the implementation of the NBSAP 2015-2020 and therefore, preparation of the 6th National Report followed a wide consultative process which involved a broad range of stakeholders'. The basis of such an inclusive process is rooted from the preparation and implementation of the NBSAP which sets the scene for this report. Stakeholder's involved in preparation of this report includes; Sector Ministries, Departments and Agencies (MDAs), Local Government Authorities (LGAs), Academic and Research, Institutions Civil Society Organizations (CSOs), Private Sector and other Non-State Actors.

2.3 Structure of the Report

The Report has six chapters. **Chapter one** gives a brief country profile in terms of location, climate and physical feature. **Chapter two** provides the overview of the

contribution of Tanzania's biodiversity to the global biodiversity wealth and its significance to mankind. Moreover the chapter also informs on the participation of the country in various global process for conservation of biological diversity. **Chapter three** provides for genesis of, rationale for and the preparation process of the 6th National report on the implementation of the Convention on Biological Diversity. **Chapter four** gives highlights of the progress made in achievement of the National biodiversity target. This includes current status and trends at ecosystem, species and genetic levels, implementation measures undertaken to achieve each target as well as notable challenges which impeded their implementation and therefore hindered achievements of the targets. This chapter also provides the information on the contribution of the national achievement to the global Aichi biodiversity targets and the Global Strategy on Plant Conservation. **Chapter five** provides general conclusion of state of affairs of biodiversity in the country and the recommendation of the ways and means to reverse the trends.

3 Progress towards Achievement of the National Biodiversity Targets

This section provides for the highlights on the target, rationale for setting the target as well as the progress attained in each of the National Biodiversity Targets set. These targets were set through a participatory process during the formulation of the National Biodiversity Strategy and Action Plan (NBSAP 2015-2020). Moreover this section informs on the Tanzania's contribution to the implementation of the Strategic Plan for Biodiversity 2011-2020 and the achievement of the Global Aichi Biodiversity Targets as well as the Global Strategy for Plant Conservation (GSPC)

Target 1:

By 2020 at least 60% of the population is aware of the importance of biodiversity and its impact on human well-being and socio-economic development of the country

Rationale

Low level of knowledge and information regarding importance of biodiversity and its impact on socio-economic development is one of the main reasons behind biodiversity loss. In order to redress this situation public awareness, advocacy and sensitization on biodiversity issues to the public is a critical approach to improve knowledge on the value, the causes and consequences of biodiversity loss. Campaigns aimed at promoting behaviour change should include a wide range of actors in educational establishments, media, and literature, decentralised authorities, national and sector level decision makers, academic institutions, Private sector, NGOs, CBOs and local communities.



Progress

The assessment of this target involved two core indicators namely;- Number of experts working on biodiversity related issues; and Number of environmental Communication Education and Public Awareness programmes. This was done through Stakeholder's consultations, baseline studies, and Expert's opinion.

According to the above indicators, Tanzania is towards achieving the target but in insufficient rate. In pursuit to achieve this target, various initiatives have been undertaken regarding awareness rising on biodiversity conservation. Such initiatives include introduction of biodiversity conservation related courses from primary school to university level, radio and TV programmes, Commemorations of national and international events on biodiversity conservation such as the Biodiversity day, World environmental day and World Forestry Day. However, these initiatives have encountered a number of challenges including financial constraints to support wide coverage of awareness programmes.

Contribution to the Global Aichi Targets In achieving this target

To improve knowledge on the value, causes and consequences of biodiversity loss Tanzania has joined the international community to contribute to the global Aichi target through commemoration events such as World Environment Day; World Forest Day; World Ocean Day; Biodiversity Day; World Water day, World Wetland Day and World Fisheries day. Such commemorations are used as platforms to raise awareness on the importance of biodiversity to mankind and national development.

In addition, the Government has established biodiversity information related sharing portals to provide link for global biodiversity information sharing including Clearing House Mechanism (CHM) Tanzania Biodiversity Information Facility (TAnBIF), and Biosafety Clearing House (BCH).

Furthermore, Tanzania is also actively participating in various regional and international biodiversity platforms including CBD subsidiary bodies, Conference of Parties (COPs) and Conference of the Parties Serving as Meeting of Parties (COP-MOPs).

Target 2

By 2020, Programmes for the valuation of biodiversity and payments for ecosystem services developed and integrated into national and local development strategies and plans.

Rationale

Among the underlying causes of biodiversity loss in Tanzania is the limited knowledge on the actual (monetary) value of the goods and services obtained as well as lack of tangible benefits arising from conservation. Consequently this has sometimes discouraged investment and community participation in conservation and resulted in un-informed decision-making. To improve the situation there is a need to have different programme and projects for evaluating the biodiversity and enforce the payment system for ecosystem services.

Progress

Assessment of the progress in achieving this target was conducted based on the following indicators: Number of economic tools for quantification for the values of biological resources and payment for ecosystem services; number of private sector pay for ecosystem services; total revenue generated from payment of ecosystem services. The methodology used included mechanism for economic valuation and payment for ecosystem service includes monitoring and evaluation; stakeholders consultations; and experts opinion.

The assessment shows that progress towards this target is on track although at insufficient rate. The progress being on track is evidenced by few initiatives undertaken related to economic valuation and payments for ecosystem services, these includes: Some initiatives include, payment of fees to Water Basin Authorities from public and private institutions such as Coca-Cola, Water Utility Authorities, TANESCO.

The insufficient rate of the progress is attributed by insufficient rate due to Technical and technological constraints; inadequate financial resources and insufficient data and information on biodiversity status in the country.

Contribution to the Global Aichi Targets in achieving this target

Achievement of this target will contribute towards achievement of Global Biodiversity 2 which aims at ensuring valuation of biodiversity and integrated of the values of biodiversity into national accounting system.

Target 3: By 2020, incentives harmful to biodiversity are eliminated, phased out or reformed and positive incentives conservation and sustainable use of biodiversity are developed and applied

Rationale

Incentives harmful to biodiversity mostly emanate from policies or practices that induce unsustainable behaviour that is harmful to biodiversity, often as unanticipated (and unintended) side effects of policies designed to attain other objectives. In order to achieve this, comprehensive analysis of available data on incentives and enhanced transparency on the amounts and the distribution of harmful incentives is required. Successful conservation of biodiversity, however, requires elimination of all harmful incentives, and establishment of biodiversity friendly incentives along with policy reforms.

Progress

To assess the progress towards attaining this target the following indicators were used: elimination of harmful incentives in agricultural practices; use of alternative energy to biomass as the source of energy number and value of harmful incentives identified; number and value of harmful incentives removed, reformed or phased out and number of biodiversity friendly incentives.

The assessment for this target employed the following methods: review of household survey reports on the use of alternative energy sources and the use of environmentally friendly agricultural incentives; review of finance Act in each fiscal year to assess fiscal instruments and incentives which have a bearing effects to biodiversity conservation.

The assessment indicates that, there is a progress towards achieving this target but at an insufficient rate. The progress is evidenced by the following Government efforts: establishment and operationalize the use of Bio-larvicide to replace DDT in agricultural practice; reduction of tax in the solar equipment's to promote the use solar energy. Other initiatives include; promotion of community based conservation initiatives such as Wildlife Management Areas (WMA) and participatory forest management (PFM); Beach/Shehiya Management Units (BMUs) as a sustainable way of biodiversity conservation.

Target 4; By 2020 investments in systems of production and consumption based on sustainable eco-friendly practices increased

Rationale

The main challenge for the investments in systems of production and consumption of biodiversity conservation is the low level of adoption of efficient and environmentally friendly technology and inadequate knowledge of wise-use of biodiversity resources. In order to redress this issue, promotion of eco-friendly technology such as cleaner production, manufacturing industries and hospitality industries should be improved.

Progress

In assessing the progress towards this target, three indicators were used: number of investments with environmental clearance; number of enterprises applying sustainable production and consumption methods and number and type of alternative energy technologies adopted. This was done through review of investment reports and survey report; stakeholder's consultation, experts opinions and research findings.

The assessment revealed that, Tanzania is towards achieving the target but in insufficient rate. A number of statutory measures have been put in-place to ensure sustainable investments in the country where as all developmental projects pass through mandatory Environmental Impact Assessment and Audits among others. Various technologies have been promoted and adopted, these include, introduction of cleaner production technology in hospitality industry, manufacturing industries.

Moreover some manufacturing and hospitality industries have voluntarily subscribed to eco-friendly labelling Schemes which promote application of Environmental Management Systems (EMS). However, the pace of adoption of efficient and environmentally friendly technology is relatively low due to high costs associated with such technologies; inadequate promotion of the use of such technologies.

Contribution to the Global Aichi Targets

The global Aichi biodiversity Target 4 aims at ensuring that by 2020 governments have implemented measures related to sustainable production and consumption. In this regard achievement of the national target which focuses also on investments on sustainable production and consumption measures will contribute to the achievement of the global target.



Assessment of progress towards Target 4

Target 5: By 2020, the rate of degradation and fragmentation of ecosystems and the loss of habitats is significantly reduced.

Rationale

Natural habitats in Tanzania, provides a home for a number of flora and fauna and the loss of these habitats results in the disappearance of some species. Tanzania has lost of its forest cover at an annual rate of about 469,420 hectares and 61% of the semiarid land is prone to degradation. Various habitats are under serious threats of degradation mainly as a result of anthropogenic activities, and therefore protection measures are required.

Progress



Assessment of the progress to achieve this target employed the following indicators: number of mapped areas; number of community- based best practices and incidences of wild fires. The assessment approach used in this process involved Stakeholder's consultations as well as review of survey reports.

The assessment indicates that Tanzania is progressing in achieving this target, although the pace is not sufficient. There have been several initiatives aimed at reducing the rate of biodiversity degradation in the country. These include designation of Gombe-Masito-Ugala and Jozani-Chwaka Bay as Man and Biosphere reserves area, designation of Burigi, Biharamulo and Kimisi as National parks as well as designation of two wildlife corridors (Litumbandyosi and Gesimasua) as game reserve to enhance conservation measures. Furthermore, six (6) new sites of marine reserves area and six nature forest reserves are in the process of gazettment. Other measures include law enforcement through increased patrols, reviews of Forest Policy and Fisheries Policy to mitigate the destruction of ecosystems.

The insufficient rate of the progress is contributed by increasing demand of land for farming, settlements and industrial activities as well as pollution from domestic and industrial wastes.

Contribution to the Global Aichi Targets in achieving this target

The global Aichi biodiversity Target 5 aims at ensuring that by 2020 the rate of loss of all natural habitats is at least halved and where possible brought close to zero. The national target also aims at significantly reducing the rate of degradation and fragmentation of ecosystems. In view of that, achievement of the national target will significantly contribute to the achievement of the global target.

Target 6: By 2020, at least three Legislations that govern exploitation of aquatic and associated terrestrial resources are reviewed and enforced

Rationale

Over-exploitation of aquatic resources as well as illegal harvesting methods including dynamite fishing is among the causes of habitat degradation and biodiversity loss in Tanzania. This has resulted in significant decline in ecosystem goods and services from the aquatic and terrestrial ecosystems. In order to reverse these declining trends of aquatic and terrestrial resources in the country, there is a need of putting in place appropriate and effective legislation that promote conservation and sustainable use of aquatic and its associated terrestrial resources.



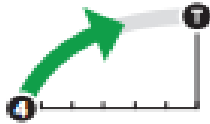
Mangrove trees cut (left) and mangrove areas converted into paddy fields in Rufiji Delta

Assessment of progress towards implementation of the target

Assessment of the progress towards attainment of this target was conducted through technical review of reports from Sector Ministries, Departments and Agencies (MDAs), Local Government Authorities as well as stakeholders' consultations. The assessment was based on the following indicators including number of legislation reviewed; number of coastal and marine management programmes in-place; percentage of mangrove and coastal forest areas sustainably managed; incidences of blast fishing; and number of Community-based Forest Management (CBFM) and Beach Management Units (BMUs) in place. These indicators were developed during the preparation of the National Biodiversity Strategy and Action Plan (NBSAP).

The Assessment indicates that the country is on track to achieve this target by 2020. This is premised on the fact that at the time of reporting several initiatives towards

achieving this target have been undertaken. These include enactment of Biosafety Regulations of 2009 (Rev 2015), Wildlife Corridors Regulations of 2017 and the Zanzibar Environment Management Act, 2015. Other pieces of legislation in their final stages of the review are the Aquaculture Act, Fisheries Act, Deep Fishing Authority Act, Plant Protection Act, Agriculture Land Management Act and Forest Act.



National contribution to the achievement of global Aichi Biodiversity Target 6

The Global Aichi biodiversity target 6 aims at ensuring that by 2020, all fish and invertebrate stocks and aquatic plants are managed and harvested sustainably, legally and applying ecosystem based approaches, so that overfishing is avoided. The national biodiversity target 6 as elaborated above aims at strengthening implementation of legislation related protection and conservation of aquatic and terrestrial resources. This has been done through enactment and review of several pieces of legislation to ensure that aquatic and terrestrial resources are utilized sustainably and that the trends of over-fishing in the country is reversed and addressed effectively. In so doing, the national biodiversity target 6 contributes enormously to the achievement of the global biodiversity target 6 which among other things aims at sustainable fisheries.

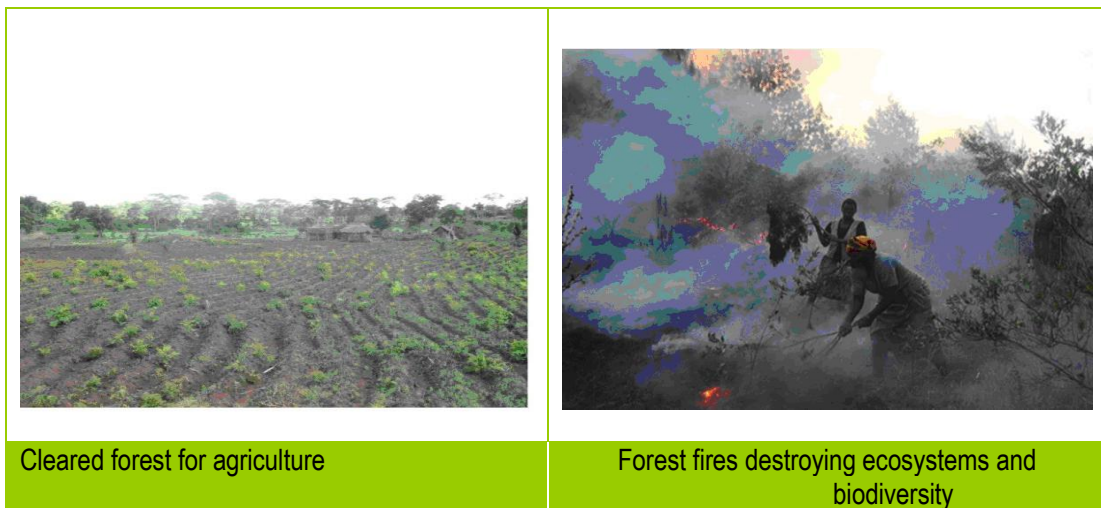
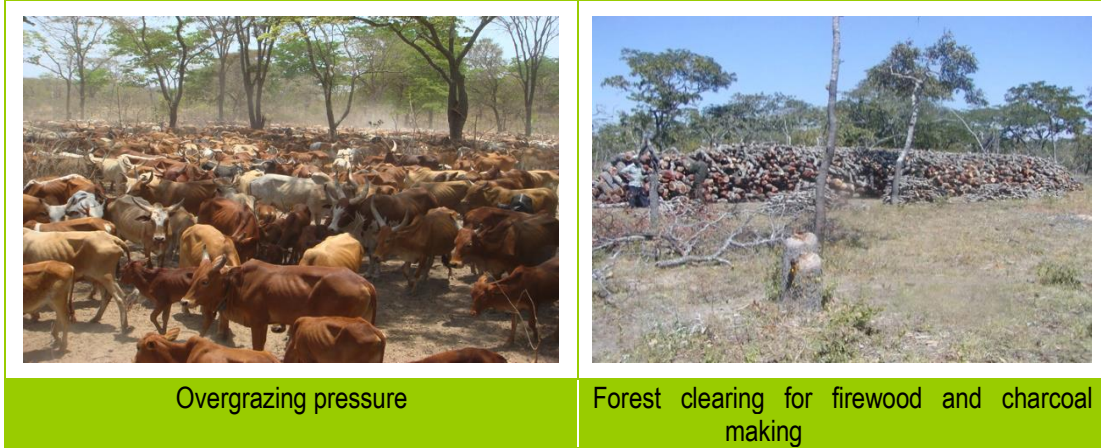
TARGET 7: By 2020, biodiversity and agriculture related policies, laws and strategies promote sustainable management of forest, agricultural and aquaculture ecosystems.

Rationale

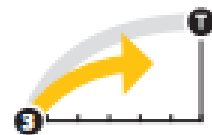
Despite its biodiversity richness, Tanzania is experiencing increasing threat on biodiversity due to a number of natural and human drivers. Agricultural expansion coupled with unsustainable agricultural practices and grazing pressure has contributed to fragmentation of natural habitats and consequent biodiversity loss in the country.

In order to address these challenges there is a need to strengthen implementation and enforcement of agriculture and biodiversity related policy and legal frameworks

which promote sustainable management of forests, agriculture and aquaculture ecosystems.



Progress



Assessment of progress was conducted based on the following indicators: number of policies, laws and strategies reviewed and implemented; number of technologies and sustainable practices adopted; number of plans, programmes and strategies implemented; percentage of degraded area reduced; and number of land use plans in place. The methodologies used in the assessment include review of various research reports, review of survey reports and stakeholder's consultations.

The assessment of progress towards achievement of this target shows that there is progress towards achieving the target but at an insufficient rate. Notable progress has been made as evidenced from various initiatives geared towards achievement of this target. These include: development of guiding documents such as Agriculture Climate Resilient Plan (ACRP), Climate Smart Agriculture (CSA) guideline, ASDP II. In addition, institutional framework has been strengthened to ensure conservation and sustainability of agrobiodiversity. Such efforts includes; establishment of Tanzania Agricultural Research Institute (TARI); Tanzania Livestock Research Institute (TALIRI) and Zanzibar Agricultural Research Institute (ZARI) for research activities on agriculture related issues among others; strengthening of extension services to facilitate Good Agricultural Practices (GAPs) and land use management plan to guide proper utilization of land so as to ensure the conservation of biodiversity; and review of Plant Protection Act which is underway to accommodate emerging issues related to plant protection and agro-biodiversity among others. All these effort contribute to the realization of this target.

In ensuring sustainable forest management, Tanzania established Forest Service Agency (TFS) so as to enhance conservation and sustainable use of forestry resources in Natural Forests, nature Reserves as well as Plantation forests. Strategic plans and management plans have been developed and implemented to ensure legal and regulatory framework responsible for biodiversity conservation in the forestry sector.

Despite the mentioned initiatives taken by relevant government institutions, there are challenges which hinder good progress in realization of this target. The challenges include financial and human resources; limited technologies to support conservation measures.

National contribution to the achievement of global Aichi Biodiversity Target 7

The Global Biodiversity Aichi Target 7 aims at ensuring that by 2020 globally areas under agriculture, aquaculture and forest are sustainably managed. Implementation of the National Biodiversity Target 7 contributes towards achieving this global target. Putting in place robust and effective policy and legal frameworks coupled with implementable strategies at national level will ensure sustainable management of agriculture, aquaculture and forest ecosystems and enhance biodiversity conservation. National initiatives currently underway aiming at attaining the National Biodiversity Target 7 will subsequently contribute to achievement of the Global Aichi Biodiversity Target 7.

Target 8: By 2020, all forms of pollution from water and land-based activities are brought to levels that are non-detrimental to biodiversity ecosystem functions.

Rationale

Pollution originating from uncontrolled disposal of various types of wastes from municipal, industrial, mining, mineral processing and agricultural activities has been identified as one of the threats to biodiversity in Tanzania. It has a significant harmful effect on the quality of water, air, land and the quality of life and hence biodiversity. Preventing pollution and its effects on biodiversity is a priority to the country given the current development prospects in both terrestrial and aquatic environment

Progress

The progress towards achieving this target was rated using the available reports on assessment of the levels of pollution, National reports on waste generation and Survey reports on the coverage of waste disposal facilities. The indicators used in this process included reduction in level of pollution, presence of National waste management strategy and action plan, number of people and entities using appropriate waste management technologies and areas with upgraded waste management infrastructures.

Progress has been made towards achieving this target but at insufficient rate. In order to achieve the target, the government has been implementing policies and strategies that advocates for prevention and control of pollution in land and fresh and marine waters. These include among others the environmental policy (1997), the Environmental Management Act (EMA-2004), the Water Resources Management Act (2009) which provides for the prevention and control of water pollution.

The government is also engaging non-state actors in environmental pollution control. Private sector and NGOs have been involved in natural resources issues including pollution control. The Government established the Cleaner Production Centre of Tanzania (CPCT) to promote the rational use of energy and raw materials and minimize waste generation and pollution from industries.

Despite the diverse initiatives and measures in addressing the pollution related issues, the level of pollution is still a challenge. This has been attributed by rapid urbanization coupled with unplanned settlements; unsustainable economic activities; and limited capacity to manage waste.

Contribution to the Global Aichi Targets in achieving this target

The Global Biodiversity Aichi Target 8 aims at ensuring that by 2020 pollution from excess nutrients has been brought to levels that are not detrimental to ecosystem function and biodiversity. Implementation of the National Biodiversity Target 8 contributes towards achieving this global target.

In pursuit to achieve this target, the government has been implementing various national, regional and International initiatives that support pollution control including the Nile Basin Initiative, the Lake Tanganyika Integrated Regional Development Programme and Lake Victoria Environmental Management Programme.

In this regard, the national initiatives for achieving the National Biodiversity Target 8 will therefore contribute to achievement of its corresponding Global Aichi Biodiversity Target.

Target 9: By 2020, invasive alien species and pathways are identified and prioritized, priority species are controlled or eradicated, and measures are in place to prevent their introduction and establishment.

Rationale

Invasive alien species (IAS) are among the significant drivers of environmental change that threaten biodiversity and are the second most important cause of biodiversity losses globally. The IAS cause major economic, environmental and social impacts in Tanzania through loss in biodiversity, crop and pasture production, water resources as well as human and animal health. Majority of the IAS were introduced in the country through different pathways such as travel, tourism, trade, agriculture and research. Control of the IAS is therefore important for sustainable biodiversity conservation.

Progress

Progress towards achieving this target was assessed using various methodologies including but not limited to stakeholders' consultation, review of Assessments and Progress reports and data from Survey and research reports. The indicators used include:- Number of policies and legislation reviewed and implemented, IAS inventory reports, presence of IS monitoring programmes and number of established entry points conducting inspection.



Assessment informs that, there is a progress towards achieving this target but is at an insufficient rate. The progress is evidenced by development of a comprehensive National Strategy and Action Plan for Invasive Species which provides for establishment of status and trends of alien species in the country and its management; establishment of phyto-sanitary and zoo sanitary units at all border entry points. The country has also identified the following ten most noxious invasive species which need an urgent attention:- *Spodoptera frugiperda* (Fall armyworm), *Prosopis juliflora* (Prosopis), *Parthenium hysterophorus* (Carrot weed), *Atripomoea hyscamoides* (Kongwa weed), *Chromolaena odorata* (Siam weed, Amachabongo), *Gutenbergia cordifolia* (Gutenbergia), *Corvus splendens* (Indian house crow), *Caesalpinia decapitala* (Mauritius thorn), *Eichhornia crassipes* (Water hyacinth), and *Tuta absoluta* (Tomato leafminer).

Moreover, sectors such as Forestry, Agriculture, Trade and Environment have reviewed policy instruments to accommodate invasive species issues. Those reviews intend to ensure non-escape from the facility and guiding the introduction of exotic species. The insufficient rate towards achieving this target is evidenced by the existence of about 75 types of Invasive Alien Species (IAS) of different categories including plant pathogens, pests, aquatic and terrestrial weeds, animals and plants.

Despite the deliberate efforts to control and eradicate IAS, there is still high rate of invasion and spread of invasive species in agricultural and range lands, protected areas as well as in aquatic ecosystems.

Contribution to the Global Aichi Targets in achieving this target

The Global Biodiversity Aichi Target 9 intends to ensure that by 2020 invasive alien species and pathways are identified, priority species are controlled and eradicated, and measures are in place to manage pathways to prevent their introduction and establishment.

In ensuring that this desire is attained at national and global levels various initiatives at local and regional levels have been undertaken. These include: Implementation of Lake Victoria Environmental management programme (LVEMP); ratification of the regional and international conventions such as international Plant Protection Convention; Effective enforcement of the Plant Protection Act (1997) and its respective Regulation which regulate movement of biological materials across its borders. All these measures are geared towards addressing invasive species nationally and henceforth achievement of the global Aichi Targets 9.

Target 10: *By 2020, the multiple anthropogenic pressure on coral reef, and vulnerable ecosystems impacted by climatic change are minimized*

Rationale

The increase of anthropogenic pressure coupled with climate change on coral reefs and other vulnerable ecosystems has led to serious degradation of coral reefs and vulnerable ecosystems in Tanzania. These negative impacts are affecting biodiversity and ecosystem including shift of the distribution, production and abundance of the species across the country. Therefore actions that reduces the negative impacts of climate change and variability, on coral reefs and other vulnerable ecosystem need to be put in place.

Progress



In assessing the progress towards attainment of this target, three key indicators were used. These include: abundance of fish in coral reefs and associated ecosystems; vulnerable ecosystems identified; and number of management programmes developed.

Assessment informs that, there is a progress towards achieving this target but is at an insufficient rate. This is due to some challenges such as inadequate financial resources to implement fully planned initiatives aiming at reducing the impacts of Climate Change in fisheries sector. This was revealed by the National assessment reports from relevant Authorities and departments, and monitoring reports which show a decline in abundance of fisheries resources.

Addressing the aforementioned challenges **the government is working towards effective adaptive measures including developing guidance to address the most pressing impact on priority fisheries; management of pollution from land-based sources; strengthening co-management strategies of fisheries resources; integrating and implementing watershed, coastal and marine management, capacity building of institutions and human resources in fisheries sector. In addressing multiple anthropogenic pressures on coral reef, and vulnerable ecosystems,** Tanzania has been implementing some programmes including Tanzania/FAO Ecosystem approach to fisheries program (2013-2017) and South West Indian Ocean Fisheries Governance and Shared Ecosystem (Tanzania/Comoro/Mozambique 2015 - 2021). These programmes, contributing to the attainment of the Global biodiversity target to halt degradation of vulnerable marine and terrestrial ecosystems.

Contribution to the Global Aichi Targets

The Aichi Biodiversity Target 10 sets the global desire to ensure that by 2015, the multiple anthropogenic pressures on coral reefs, and other vulnerable ecosystems impacted by climate change or ocean acidification are minimized, so as to maintain their integrity and functioning.

Implementation of the national biodiversity target 10 various initiatives have been undertaken to address multiple anthropogenic pressure and vulnerable ecosystems impacted by climate change. Those initiatives include: establishment of Marine parks and reserve areas; and development and implementation of projects intending to conserve vulnerable ecosystems Tanzania/FAO Ecosystem approach to fisheries program (2013-2017) and South West Indian Ocean Fisheries Governance and Shared Ecosystem (Tanzania/Comoro/Mozambique 2015 - 2021). In addition, Tanzania ratified a number of Multilateral Environmental Agreements (MEAs) which aims at addressing climate change impacts and biodiversity conservation related issues. These initiatives, contribute to the attainment of the Global biodiversity target 10 which intends to halt multiple anthropogenic pressures on coral reefs, and other vulnerable ecosystems impacted by climate change or ocean acidification are minimized, so as to maintain their integrity and functioning.

Target 11:

By 2020, area covered under marine protected areas be increased from 6.5% to 10% and effectively manage existing terrestrial and marine protected areas.

Rationale

About 40% of the total land area has been designated as forest and wildlife protected areas exceeding the international target of 17% (2020 Aichi Targets). However, only 6.5% of the marine area is protected leaving a substantive size of ecologically and biologically significant areas out of total protection. The plan for Government is to gradually expand these areas to attain the set national target that is 10% by the year 2020.

To achieve the target the focus will be to review and enforce legislation and implement programme for sustainable management of the existing protected areas; restoration of degraded protected areas; promote regional Cooperation on protection and conservation of wild habitats;

Strengthen Co-management strategies, research and human capacity on the management of protected areas.

Progress

Assessment of the progress towards this target was based on three indicators namely level of compliance; number of policies, plans and strategies formulated/reviewed and implemented; and number of new designated marine protected areas. The methodology used to assess the progress towards achieving this target includes review of assessment reports; compliance reports; stakeholder's consultations and experts opinion.

The assessment revealed that there is a progress towards achieving this target but at an insufficient rate. The progress is due to the measures put in place towards increasing Marine Protected Areas including three marine areas under protection namely; Ukuza, Simaya and Nyuni in Kilwa District. This initiative when completed is likely to increase the marine protected area to over 7%.



2019 - Progress towards target but at an insufficient rate

Contribution to the Global Aichi Targets in achieving this target

The Global Biodiversity Aichi Target 11 intends to ensure that by 2020, at least 17 per cent of terrestrial and inland water, and 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well-connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscapes and seascapes

To attain the national and global target the country has put in place various measures aiming at increasing marine protected areas as well as management of existing terrestrial and marine protected areas. Some of the measures include establishment of Tanga Coelacanth Marine Park and promotion of community participation in marine and terrestrial management. This initiative contributes in achieving the Global Aichi Target 11 by conserving endangered species of Global significance such as Sea Turtle and Coelacanth.

Target 12:

By 2020, species that require special attention are identified and managed for long-term sustainability in a nationwide biodiversity assessment.

Rationale

Tanzania is endowed with various species of flora and fauna, some of which are listed as rare, endangered or threatened. These species are important to the country due to their contribution to economic development or social well-being, and hence require special attention. In order to ensure sustainable management of such species, there is a need to conduct national-wide biodiversity assessment.

One of the significant hurdles on identifying species that require special attention is lack of consistent data on different components of biodiversity, which represent a serious gap in the successful management of biodiversity in the country. In order to manage such species sustainably, more information or data are required.

Progress



In assessing the progress made in this target the following indicators were employed: Biodiversity updates and alerts list; available biodiversity status maps; number of monitoring, conservation and recovery programmes; and number of registered endangered and threatened species.

The assessment indicates that there is a progress towards achieving the target but at an insufficient rate. This progress is evidenced by measures undertaken including species specific conservation programmes that also aim at collecting data and information on species that require special

attention. Some of these initiatives include: Wild dog action plan; Rhino action plan; establishment of Tanga Coelacanth Marine Park; Red Colobus monkeys conservation strategy and Arders duiker conservation strategy (in Zanzibar); and Sea Turtle conservation programme. The insufficient rate of the progress was due to the fact the assessments did not cover the entire spectrum of biodiversity in the country due to inadequate financial and human resources.



Coelacanths (*Latimeria chalumnae*)

Contribution to the Global Aichi Targets in achieving this target

The Aichi Biodiversity Target 12 seeks to ensure that by 2020 the extinction of known threatened species has been prevented and their conservation status, particularly of those most in decline, has been improved and sustained.

In order to ensure that this global target is attained, Tanzania has been committed in the prevention and conservation of threatened species through ratification and implementation of a number of Multilateral Environmental Agreements on threatened species. These include: African Convention on the Conservation of Nature and Natural Resources; Convention on the International Trade in Endangered Species of Wild Flora and Fauna (CITES); Conservation on Migratory Species (CMS), Agreement on the Conservation of African-Eurasian Migratory Water Birds (AEWA).

Domestication of such international agreements by putting specific conservation measures on endangered species contribute to the attainment of the Global biodiversity target 12 that intends to halt extinction of known threatened species.

Target 13:

By 2020, Strategies to reduce genetic erosion developed and implemented to maintain genetic diversity of cultivated plants, farmed and domesticated animals and their wild relatives.

Rationale

Genetic diversity seems to be declining in natural ecosystems as well as in agricultural and livestock production systems. The extent of such decline and its overall impact has not been adequately documented. In addressing this challenge, measures have to be put in place to ensure conservation of genetic resources of cultivated plants and domesticated animals including their wild relatives developed and implemented. Establishment and strengthening of gene banks; and legislation related to safe use of modern biotechnology are considered as key steps towards protecting genetic diversity of species in the country. In this regard, priority is given to the programme, projects and activities that aimed at maintaining genetic diversity as well as to those reducing genetic erosion in the country.

Progress

To ascertain the progress made in this ambition the three indicators were used: presence of data base of threatened genetic resources; number of threatened genetic resources; number of gene bank accession number. The methodologies employed in undertaking this assessment were based on stakeholder's consultation, review of progress and technical reports, survey and research findings.

The assessment indicates that there is a progress towards achieving the target but at an insufficient rate. Progress towards achieving this target has been demonstrated through implementation of the following measures: development of inventory and management plan of threatened genetic species; establishment of; gene banks to preserve diversity of cultivated plant species and its wild relatives in the country; Tanzania Official Seed Certification Institute (TOSCI); Tanzania Agricultural Research Institute (TARI); Tanzania Livestock Research Institute (TALIRI). Other measures include: domestication of Cartagena Protocol on Biosafety; ratification of International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA); and ratification of Nagoya Protocol on Access and Benefit Sharing.

Despite a number deliberate measures undertaken to achieve this target inherent challenges have hindered full realization of this target, among others were financial constraints, limited technical and technological capacities.



2019 - Progress towards target but at an insufficient rate

Contribution to the Global Aichi Targets in achieving this target

The Aichi Biodiversity Target 13 intends ensure that by 2020 genetic diversity of cultivated plants and farmed and domesticated animals and of wild relatives, including other socioeconomically as well as culturally valuable species, is maintained. In pursuit to ensure the attainment of this global target, several national and international measures have been implemented to maintain conservation of genetic diversity. The progress achieved in National Target 13 which subsequently contributes to the attainment of Global Aichi Biodiversity Target 13.

Target 14: By 2020, ecosystems that provide essential services, related to water, and contribute to health, livelihoods and well-being, are restored and safeguarded, taking into account the needs of women, local and vulnerable communities.

Rationale

Different ecosystems in the country have continued to provide essential services to the human beings together with other creatures. However, overtime these ecosystems have been deteriorating due to unsustainable human activities such as unsustainable agricultural and livestock practices, deforestation, poaching unsustainable mining activities among others. In order to address the mentioned challenges, there is a need to development/strengthen management programmes for restoration ecosystems that provide essential services with special attention to women, local and vulnerable communities.

Progress

Assessment for the achievement this target was based on three main indicators namely, number of management programmes for major watersheds in-place, coverage of protected/restored areas, and trends in changes in ecosystem services. This was done through Stakeholders' consultations, baseline studies, and expert's opinion. The assessment indicates that there is progress toward achieving this target but at an insufficient rate. Various initiatives have been implemented including mangrove and terrestrial forest restoration programmes, Great Ruaha Restoration initiative; Kihansi Catchment Conservation Management project; and Nyasa Catchment Management Project.

In addition, the government has adopted Integrated Water Resources Management (IWRM) approach which has emerged as a means of addressing the local and global

water problems and working towards a sustainable future for water management. Furthermore, the government has developed and is implementing a Climate Smart Agriculture Programme which has the Vision to have an "Agricultural sector that sustainably increases productivity, enhances climate resilience and food security, restoration and safeguarding of ecosystems that provide essential services.

Despite these efforts, the outcomes of such initiatives have not been fully realized due to inherent challenges such as over-dependency of biomass energy; inappropriate irrigation practices coupled with financial constraints and low institutional capacity.



Contribution to the Global Aichi Targets in target

achieving this

The Aichi Biodiversity Target 14 is of the ambition that by 2020 By 2020, ecosystems that provide essential services, including services related to water, and contribute to health, livelihoods and well-being, are restored and safeguarded. To contribute to this global target, Tanzania has implemented various trans-boundary conservation programmes in terrestrial and aquatic ecosystems. Henceforth, the progress achieved in National Target 14 will subsequently contribute to the attainment of Global Aichi Biodiversity Target 14.



Target 15:

By 2020, ecosystem resilience and the contribution of biodiversity to carbon stocks have been enhanced, through conservation and restoration, thereby contributing to climate change mitigation and adaptation and to combating desertification.

Rationale

Tanzania has a diverse of ecosystems including aquatic and terrestrial ecosystems which among others serve as net carbon sinks and hence contributing towards mitigation of climate change. Therefore, there is a need to put in place mechanisms for payment of carbon stocks and other conservation initiatives ecosystem to enhance ecosystem resilience and the contribution of biodiversity to carbon stocks, climate change mitigation and adaptation. In this regard, the target seeks to ensure that at national level there are well established conservation and restoration mechanism which contribute to climate change mitigation and adaptation and to combating desertification

Progress



The assessment was based on two indicators namely; Level of carbon stock; and status of ecosystem resilience. The assessment was done through review of Ecosystem assessment and annual conservation programmes progress reports; Remote Sensing and GIS; and Stakeholders consultations. The assessment indicates that there is progress toward achieving this target but at an insufficient rate.

The progress was due to a number of conservation and restoration initiatives aimed at ensuring that the ecosystem continues to provide ecosystem goods and services. Some of these initiatives includes; Designation of about one-third of the country to protected areas under different conservation regimes. In this case, about 48.1 million ha of Tanzania Mainland and 106,458 ha in Zanzibar have been designated as forests land.

Despite the efforts undertaken to conserve and restore forest ecosystems, unprecedented deforestation rate of about 469,420 ha/year posing a challenge in achieving this target.

Contribution to the Global Aichi Targets in achieving this target

In realization of this target towards contributing to the global Aichi Targets which intends to ensure that by 2020, ecosystem resilience and the contribution of

biodiversity to carbon stocks have been enhanced, through conservation and restoration, thereby contributing to climate change mitigation and adaptation and to combating desertification.

Tanzania has domesticated several multilateral Environmental Agreements (MEAs) including United Nations Framework Convention on Climate Change (UNFCCC) and the Paris Agreement and adopted the National Determined Contribution (NDC) in 2018, which aims at contributing to reduction of climate vulnerability and enhancing long term resilience to the adverse impacts of climate change and reduction of greenhouse gases emission. Henceforth, the progress achieved in National Target 15 will subsequently contribute to the attainment of its corresponding Global Aichi Biodiversity Target.



Target 16: By 2020, Fair and Equitable Benefit Sharing arising from utilization of biodiversity resource is in force and operational, consistent with national and international legislation.

Rationale

Tanzania is one of the mega biodiverse country which is rich in genetic resources that could contribute to social economic development. In order to benefit fully from these resources, appropriate and effective domestic legal and institutional framework is of paramount importance to ensure fair and equitable sharing of such resources among stakeholders in the context of Nagoya Protocol on Access and Benefit Sharing arising from utilization of biodiversity resources.

Progress

The assessment was based on four (4) core indicators namely; ratification of Nagoya Protocol; establishment of ABS framework (legislation, guidelines, manuals and communication strategy) and identification and promotion of various traditional Knowledge regarding fair and equitable sharing of benefits from utilization of biodiversity resources.

In ensuring that the target indicators above are achieved, Tanzania ratified the Nagoya Protocol in 2017. On the other hand, processes are underway to develop legal, awareness raising and capacity building programmes on Access, Fair and Equitable Sharing of Benefits from utilization of genetic resources. Generally, there is progress towards achievement of this target but at an insufficient rate.



Target 17

By 2016, Tanzania has adopted NBSAP as a policy instrument, and has commenced implementation with effective, participation.

Rationale

Conservation and sustainable use of biological diversity requires a holistic, integrated and collective involvement of different stakeholders. This calls for development and implementation of Biodiversity Strategy and Action Plans (BSAPs) at both Sectoral and Local Government levels to strengthen institutional framework regarding biodiversity issues. It also calls for mainstreaming biodiversity into sectoral policies, plans and strategies and compliance to the National Commitment to Multilateral Environmental Agreements relevant for biodiversity conservation.

Progress

The assessment of the progress in achieving this target was based on a core indicator which required the adoption of a revised NBSAP by 2015. Using this indicator the assessment has shown that the target was achieved within the required time.



Contribution to the Global Aichi Targets in achieving this target

Through achievement of this target of adopting and implementation of NBSAP Tanzania has contributed to achievement of global target 17 which require each party to adopt and implement NBSAP as a policy instrument by 2015.

Target 18: By 2020, traditional knowledge, innovation and practices relevant for the conservation and sustainable use of biodiversity respected and safeguarded.

Rationale

Traditional knowledge, innovations and practices can contribute enormously in efforts geared towards conservation and sustainable use of biodiversity. Being a country with multiple ethnic groups with a diversity of culture, Tanzania is well endowed with valuable traditional knowledge and innovations that can complement biodiversity conservation measures. However such knowledge and innovations are not realized and utilized to its full potentials. In order to fully benefit from this knowledge, it is of paramount importance to identify, promote, respect and safeguard them so that they can support biodiversity conservation in the country. Furthermore, there is a need for

control of traditional practices harmful to biodiversity and establishment of strategies that promote and preserve cultural heritage.

Progress

The following indicators were used to assess the progress towards achieving this target which are: number of traditional knowledge practices documented and promoted; number of sacred areas with management plans that incorporate biodiversity conservation; mechanism for involving traditional leadership in biodiversity conservations; and strategies to promote and preserve cultural heritage. The methodologies used in assessing the progresses were; stakeholder's consultations; review of research and surveys reports and Experts opinions.

The assessment indicates that, there is a progress towards achieving this target but at an insufficient rate. This progress was evidenced by the demonstrated use of a numbers of traditional practices related to biodiversity conservation such as: ngitiri in forest biodiversity conservation; Matengo Ngoro pits in land management for agrobiodiversity; Alalili (Maasai traditional ecological knowledge in management of dry land ecosystems). **Picha ya matengo ngoro pits**

Contribution to the Global Aichi Targets in achieving this target

Promoting the use of traditional knowledge in the country contributes not only in the attainment of the national target but also it supports the realization of the Global Aichi Biodiversity Targets 18 which also aims at safeguarding, respecting and using traditional knowledge, innovations and practices of indigenous and local communities relevant for the conservation and sustainable use of biodiversity.

Target 19. By 2020, significant increase in the contribution of knowledge, technology and scientifically based information generated and shared.

Rationale

Conservation and sustainable use of biodiversity requires appropriate knowledge derived from applied scientific research, which in turn support planning, and informed decision-making processes which have a bearing effect on biodiversity and ecosystems functions in the country. Inadequate generation of scientific data and information coupled with limited information sharing and dissemination mechanism motivating the country to consider this target as very important to the implementation of the convention. On the other hand limited capacity for research, technology and generation of accurate biodiversity information and data limit its contribution in planning and decision making process. In this regard there is a need to increase knowledge and information on biodiversity to enhance its conservation.

Progress

Assessment for the progress towards achievement of this target was conducted by using core indicators namely: establishment functional CHM; number of scientific publications and reports on biodiversity issues; adoption of scientific findings by policy makers. Methodologies used to assess this target were as follows: review of research publications; stakeholders' consultations and expert's opinion.

The assessment indicates that, there is a progress towards achieving this target but at an insufficient rate. The progress is evidenced by: establishment a functional CHM, BCH and TaNBIF portals which used as platforms for biodiversity information sharing. Several sector ministries and institutions have established web portals for information sharing, number of research and Academic institutions which generate biodiversity related data and information. Despite these initiatives, dissemination of research finding amongst stakeholders and to the decision/policy makers is still a challenge.

Contribution to the Global Aichi Targets in achieving this target

Tanzania's initiatives towards achievement of the national target has a great contributions to attain the global Aichi target 19 through establishment of CHM, BCH and TanBIF portals which facilitate Tanzania to share its biodiversity information globally.



Target 20:

By 2020, financial resources in support of biodiversity programmes significantly increased

Rationale

Inadequate funding for biodiversity components is one of the challenges in successful implementation of various initiatives geared to halting biodiversity loss. Likely interventions include development of fundable proposals for biodiversity conservation, incorporation of biodiversity issues in annual planning and budgeting so as to increase government subventions, and development and implementation of a resource mobilization strategy and plan to increase funding for biodiversity. Effective biodiversity conservation is also banking on a strong partnership with development partners and all stakeholders.

Progress

In assessing the progress made in this target the following indicators were employed: number of strategies and action plan; list of funding options; number of funded project proposals. Methods used to assess the progress for this target includes: annual financial reports; annual government budgetary allocations; financial assessment reports indicating contribution from bilateral and multilateral support.

The assessment indicates that, there is a progress towards achieving this target but at an insufficient rate. The progress is evidenced by presence of initiatives to mobilize financial resources to support biodiversity conservation, among others; establishment of financing mechanism in biodiversity related sectors (funds), mobilization of funds through bilateral cooperation, promotion of Public Private Partnership's initiatives and budgetary allocations in each financial year. However, due to competing developmental issues and other social services, there has been a challenge in the allocation of adequate funding for conservation of biodiversity in the country.



Contribution to the Global Aichi Targets in achieving this target

Tanzania being a party to various Regional and Global Multilateral Environmental Agreements pulls resources together with other countries contribute annual fees to the General Trust Fund for Global biodiversity conservation. These country annual fees contribute to the attainment of the Global Aichi target 20. Furthermore, Tanzania has been contributing financial resources in regional conservation of trans-boundary resources.

