

**GOVERNMENT OF THE FEDERAL DEMOCRATIC
REPUBLIC OF ETHIOPIA**

**ETHIOPIA'S NATIONAL BIODIVERSITY STRATEGY
AND ACTION PLAN 2015-2020**

TEXT

ETHIOPIAN BIODIVERSITY INSTITUTE



**Addis Ababa, Ethiopia
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ACRONYMS

ATA	Agricultural Transformation Agency
BoANR	Bureau of Agriculture and Natural Resources
BoEFCC	Bureau of Environment, Forest and Climate Change
CBD	Convention on Biological Diversity
CBOs	Community Based Organizations
CSA	Central Statistical Agency
DHL	Deutsche Post Express Company
EBF	Ethiopian Biodiversity Forum
EBI	Ethiopian Biodiversity Institute
ECXA	Ethiopian Commodity Exchange Authority
EIAR	Ethiopian Institute of Agricultural Research
EIPO	Ethiopian Intellectual Property Office
EWCA	Ethiopian Wildlife Conservation Authority
EWNHS	Ethiopian Wildlife and Natural History Society
HLLs	Higher Learning Institutions
HoPR	House of People's Representatives
MDTI	Meat and Dairy Technology Institute
MoANR	Ministry of Agriculture and Natural Resources
MoCT	Ministry of Culture and Tourism
MoE	Ministry of Education
MoEFCC	Ministry of Environment, Forest and Climate Change
MoFA	Ministry of Foreign Affairs
MoFED	Ministry of Finance and Economic Development
MoFPDA	Ministry of Federal and Pastoralist Development Affairs
MoH	Ministry of Health
Mol	Ministry of Industry
MoJ	Ministry of Justice
MoLF	Ministry of Livestock and Fisheries

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MoMPNG	Ministry of Petroleum and Natural Gas
MoND	Ministry of National Defense
MoST	Ministry of Science and Technology
MoT	Ministry of Trade
MoWCA	Ministry of Women and Children's Affairs
MoWIE	Ministry of Water, Irrigation and Energy
MoYS	Ministry of Youth and Sports
NAIC	National Artificial Insemination Centre
NBC	National Biodiversity Council
NBTC	National Biodiversity Technical Committee
NPC	National Planning Commission
RARIs	Regional Agricultural Research Institutions



Preface

Ethiopia prepared and implemented the first National Biodiversity Strategy and Action Plan 2005-2010. Following the termination of the first NBSAP, the country has prepared the present Strategic Plan 2015-2020.

Development of Ethiopia's National Biodiversity Targets and Actions has been based on the analysis of the existing situations of the country such as level of threats, government priorities, existing capacity, lessons from the hitherto implementation experiences on the three pillars of the CBD, and associated global provisions of the Strategic Plan 2011-2020. Accordingly, Ethiopia has developed 18 National Biodiversity Targets that would be implemented between 2015 and 2020. These are outlined under the five Strategic Goals of the Global Strategic Plan for Biodiversity 2011-2020. The full version of the Ethiopian NBSAP 2015-2020 document contains eight chapters and has been published separately.

This document is part of the revised NBSAP, and is meant to provide a quick overview of the strategic plan components and their implementation arrangements. The revised NBSAP has two parts. Part I outlines the strategy and action plan of the NBSAP, and Part II outlines implementation arrangements. To get full picture of Ethiopian Biodiversity and ecosystems as well as direct and indirect pressures they are facing, readers are encouraged to go through the whole document of the Ethiopian NBSAP 2015-2020.

Finally, I request all relevant stakeholders to positively contribute to the full and effective implementation of the targets.

A handwritten signature in blue ink, appearing to be 'Gemedo Dalle', written over a faint circular stamp or watermark.

Gemedo Dalle (PhD)
Director General
Ethiopian Biodiversity Institute

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PART I. REVISED NATIONAL BIODIVERSITY STRATEGY AND ACTION PLAN 2015-2020

1.1. Vision

By 2050, Ethiopia's biodiversity and ecosystems are conserved and sustainably utilized by all sectors providing food security and contributing to poverty eradication and improved quality of life of the Ethiopian people.

1.2. Mission

By 2020, awareness of general public and policy makers on biodiversity and ecosystem services is raised, biodiversity and ecosystem services are valued, pressures on biodiversity and ecosystems are reduced, status of biodiversity and ecosystem services are improved, and access to genetic resources and fair and equitable sharing of benefits arising from their use is ensured.

1.3. Principles

The following are basic principles underlying Ethiopia's 2015-2020 NBSAP.

- We work hard to live in harmony with nature
- We acknowledge and respect the culture, values, innovations, practices and knowledge of local communities
- We remain alert to control the spread and introduction of invasive species
- We pay due attention to gender equity in our endeavors of conservation and sustainable utilization of our biodiversity
- We adapt to and mitigate climate change through proper conservation, development and utilization of our biodiversity
- We acknowledge active participation of local communities for effective conservation and sustainable utilization of our biodiversity, and access to genetic resources and the fair and equitable sharing of benefits arising from their use
- We strive for enhancing contribution of biodiversity to food security and poverty eradication
- We promote research-based biodiversity conservation

1.4. Strategic Goals and National Biodiversity Targets

Strategic Goal A: Address the underlying causes of biodiversity loss by mainstreaming biodiversity across government and society

Target 1. By 2020, awareness of public and decision makers on the values of biodiversity and ecosystem services is raised, and the steps they can take to conserve and use them sustainably is improved

1.1. Technical rationale

In Ethiopia, local communities and most decision makers have limited knowledge and awareness on biodiversity and ecosystem services. Therefore, policy makers are occupied with poverty reduction and development issues that may have short term gains, but will harm biodiversity in the long term. Similarly, some of the investment activities may have adverse effect on biodiversity. Ethiopia has been undertaking various actions in areas related to education and public awareness on biodiversity conservation and sustainable utilization. Further efforts are, however, required to increase overall awareness of communities, policy makers, development partners and private sectors on the importance of biodiversity and ecosystem services. Therefore, there is a high need to raise awareness at different levels in order to bring positive changes and to create more commitment of government for effective implementation of the three objectives of the Convention on Biological Diversity.

1.2. Implementation strategy

A strategy for the implementation of this target relies mainly on, use of mass media (radio, TV, print), biodiversity forums at selected schools, universities and community, visits to target groups to selected protected areas (PAs), and organizing events to local communities to exchange experiences and share information, including organizing National Biodiversity Days and workshops.

1.3. Milestones

- By 2015, national baseline data will be collected and comprehensive national strategies to promote awareness of general public and policy makers on the values of biodiversity and ecosystem services are prepared and adopted

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- By 2015, public awareness campaigns on biodiversity and ecosystem services, and the steps people can take to protect them are initiated
- By 2016, relevant educational curricula have been revised and implemented
- By 2016, awareness raising is integrated into the extension and adult education
- By 2020, level of awareness is evaluated, and level of improvement is reported

1.4. Indicators

- Percentage of the public and decision makers aware of biodiversity and ecosystem services
- Percentage of decision makers addressing the sustainability agenda
- Percentage of the public participating in caring biodiversity and environment

1.5. Actions, implementing institutions and implementation plan

- 1.5.1. Conduct national baseline survey on the level of awareness of public and decision makers on biodiversity
 - i. Lead agency for the implementation: EBI
 - ii. Collaborators for the implementation: CSA, RBUs, MoANR, MoLF
 - iii. Implementation period: 2015
- 1.5.2. Conduct awareness raising activities on biodiversity for public and decision makers
 - i. Lead agency for the implementation: EBI
 - ii. Collaborators for the implementation: RBUs, EBF, EWNHS, Media, EWCA, MoANR, MoLF, HoPR, concerned NGOs
 - iii. Implementation period: 2015-2020
- 1.5.3. Revise educational curricula relevant to biodiversity
 - i. Lead agency for the implementation: MoE
 - ii. Collaborators for the implementation: EBI, HLIs, regional bureaus of education including Addis Ababa and Dire Dawa City Councils, EWCA, MoANR, MoEFCC, MoLF
 - iii. Implementation period: 2015-2020
- 1.5.4. Start implementation of the revised educational curricula
 - i. Lead agency for the implementation: MoE

- ii. Collaborators for the implementation: HLI, regional bureaus of education including Addis Ababa, Dire Dawa City Councils
 - iii. Implementation period: 2016
- 1.5.5. Make awareness creation part of the extension and adult education programmes
- i. Lead agency for the implementation: MoANR
 - ii. Collaborators for the implementation: MoE, MoH, EBI, BoA/Pastoral/Agropastoral Bureaus
 - iii. Implementation period: 2016
- 1.5.6. Evaluate the level of awareness of public and decision makers on biodiversity
- i. Lead agency for the implementation: EBI
 - ii. Collaborators for the implementation: CSA, RBUs, MoANR, MoLF
 - iii. Implementation period: 2020

Target 2. By 2020, the existing biodiversity related laws, regulations and strategies , including those associated with incentives are reviewed and gaps are addressed

2.1. Technical rationale

Lack of harmonization of laws, regulations and strategies, perverse incentives and absence of regulations and guidelines in some areas of biodiversity have resulted in loss of the same. Therefore, there is a need to review and fill the gaps of the existing laws, regulations and strategies, and formulate new ones, as appropriate. Moreover, there is a need for capacity building that will enable the enforcement of the existing legal frameworks.

2.2. Implementation strategy

Strategy for the implementation of this target will be based on identifying and filling the gaps in the existing laws, regulations and strategies, including those associated with the incentives. The need for harmonization of the Proclamation on Access to Genetic Resources and Community Knowledge and Community Right and the corresponding Regulation with the Nagoya Protocol on access to genetic resources and the fair and equitable sharing of benefits arising from their use is one of the activities for the implantation of this target. There is also a need to reduce/eliminate perverse incentives that cause loss of biodiversity and encourage the positive ones. Mainstreaming of the revised and/or formulated laws,

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regulations and strategies is another crucially important part of the strategy for the realization of this target.

2.3. Milestones

- By 2015, laws, regulations, guidelines and strategies related to biodiversity conservation, sustainable utilization, and access to genetic resources and fair and equitable sharing of benefits arising from their use are reviewed and gaps are identified
- By 2017, drafted/harmonized laws, regulations and strategies are approved
- By 2020, capacity for the enforcement of laws, regulations and strategies related to biodiversity conservation, use, development and sharing of benefits accrued from their use is strengthened
- By 2020, approved laws, regulations and strategies are mainstreamed and implemented

2.4. Indicators

- Number of revised laws, regulations and strategies
- Number of identified incentives that reward positive contributions and addressed perverse incentives
- Number of mainstreamed laws, regulations and strategies
- Number of capacity built stakeholder institutions

2.5. Actions, implementing institutions and implementation plan

- 2.5.1. Review laws, regulations and strategies related to biodiversity, including those associated with incentives
- i. Lead agency for the implementation: EBI
 - ii. Collaborators for the implementation: MoANR, MoLF, MoEFCC, EIPO, EWCA, Investment Agency, EBF, MoJ
 - iii. Implementation period: 2015
- 2.5.2. Draft/harmonize laws, regulations and strategies related to biodiversity
- i. Lead agency for the implementation: EBI

- ii. Collaborators for the implementation: HoPR, MoANR, MoLF, ATA, MoEFCC, EIPO, EWCA, Investment Agency, EBF, MoJ, Council of Ministers, regional governments, MoI
 - iii. Implementation period: 2016-2020
- 2.5.3. Approve and mainstream laws, regulations and strategies
- i. Lead agency for the implementation: EBI
 - ii. Collaborators for the implementation: MoANR, MoLF, MoEFCC, MoFPDA, BoANR/Pastoral/Agropastoral Bureaus, BoEFCC, EIPO, EWCA, Investment Agency, EBF, ATA
 - iii. Implementation period: 2017-2020
- 2.5.4. Build capacity on the implementation of the existing biodiversity related laws, regulations and strategies
- i. Lead agency for the implementation: EBI
 - ii. Collaborators for the implementation: MoEFCC, MoJ, EIPO, EWCA, MoANR, MoLF
 - iii. Implementation period: 2020

Target 3. By 2020, biodiversity values and ecosystem services are communicated and integrated into national and local development and poverty reduction strategies and plans

3.1. Technical rationale

Like in many other developing countries, the importance of biodiversity, especially of ecosystem services are not widely reflected in decision making processes in Ethiopia, resulting from the absence of reliable and comprehensive data on economic and non-economic values of biodiversity and the ecosystem services it underpins. Therefore, the objective of this target is to ensure the diverse values of biodiversity and opportunities derived from its conservation and sustainable use are recognized and reflected in all relevant public and private decision-making processes such as national and local development and poverty reduction strategies.

3.2. Implementation strategy

Ensuring the recognition of diverse values of biodiversity and opportunities derived from its conservation and sustainable use, and making them reflected in all relevant public and private decision-making processes such as the national and local development and poverty reduction strategies and planning requires, *inter alia*, capacity building. Therefore, implementation of this target will start with reviewing the outcomes of biodiversity and ecosystem services valuation studies that have so far been conducted in the country as well as the outcomes from other relevant targets of the this NBSAP. This will be followed by devising a strategy for communicating and integrating the contributions of biodiversity and ecosystem services into national and local development and poverty reduction strategies.

3.3. Milestones

- By 2015, results of the hitherto studies on valuation of biodiversity and ecosystem services are reviewed
- By 2020, values of biodiversity and ecosystem services are communicated and integrated into local and national development and poverty reduction strategies and plans

3.4. Indicator

- Strategies integrating values of biodiversity and ecosystem services

3.5. Actions, implementing institutions and implementation plan

3.5.1. Review studies on valuation of biodiversity and ecosystem services

- i. Lead agency for the implementation: EBI
- ii. Collaborators for the implementation: MoANR, MoLF, MoEFCC, EWCA, HLIs, EIPO
- iii. Implementation period: 2016

3.5.2. Communicate and integrate values of biodiversity and ecosystem services into local and national development and poverty reduction strategies and plans

- i. Lead agency for the implementation: NPC
- ii. Collaborators for the implementation: MoANR, MoLF, HoPR, MoEFCC, EBI, EWCA
- iii. Implementation period: 2016-2020

Strategic Goal B: Reduce the direct pressures on biodiversity and promote its sustainable use

Target 4. By 2020, habitat conversion due to expansion of agricultural land is halved from the existing rate of about 10% per year

4.1. Technical rationale

Habitat conversion is one of the major factors of biodiversity loss in Ethiopia. Rising demands for food and other agricultural products, among others, have resulted in clearing of natural habitats for agricultural lands; and economic, demographic and social pressures are likely to put further pressure on habitats. Therefore, there is an urgent need to decrease the rate of such expansion into forest and other ecosystems. Projections indicate, for example, that unless appropriate measures are in place to change the traditional development path, an area of 9 million ha might be deforested for agriculture between 2010 and 2030. Over the same period, annual fuel wood consumption will rise by 65%, leading to additional forest degradation to generate more than 22 million tonnes of woody biomass. Moreover, both federal and regional government policies and laws are silent regarding wetland protection. As a result, many ecosystems such as wetlands and high forests have been converted to farmlands, and there is an urgent need to prevent the loss of these ecosystems.

4.2. Implementation strategy

Habitat loss can be addressed through conservation of currently viable ecosystems and restoration of degraded ones. Though restoration activities can restore many of the attributes of primary ecosystems, they cannot be reversed to their original states in the short to medium term. So, the emphasis of this target is preventing the loss of high-biodiversity value habitats such as primary forests and wetlands and rehabilitation of degraded ecosystems. Reduction in the rate of loss and degradation of natural habitats can be achieved by adopting technologies and innovations that increase productivities of small holder farmers. This will help in increasing yields of crops per unit input, which will eventually result in a decrease in requirements for new agricultural lands. The other scheme is creating alternative livelihoods for local communities to reduce pressure on the ecosystems.

4.3. Milestones

- By 2020, technologies and innovations for increasing productivity of smallholder farmers and pastoralists are adopted
- By 2020, provisions of alternative livelihoods, including jobs and alternative energy sources and use of energy efficient technologies for local communities are improved

4.4. Indicator

- Rate of annual conversion of habitats into agricultural land

4.5. Actions, implementing institutions and implementation plan

4.5.1. Create alternative jobs for local communities

- Lead agency for the implementation: MoI
- Collaborators for the implementation: MoANR, MoLF, MoCT, MoT, MoMPNG, MoYS, regional governments
- Implementation period: 2015-2020

4.5.2. Increase alternative energy sources and use of energy efficient technologies

- Lead agency for the implementation: MoWIE
- Collaborators for the implementation: MoANR, MoLF, MoT, MoI, MoMPNG, MoST, regional governments, concerned NGOs
- Implementation period: 2015-2020

4.5.3. Adopt technologies and innovations for increased productivity of smallholder farmers and pastoralists

- Lead agency for the implementation: MoANR
- Collaborators for the implementation: MoLF, EIAR, RARIs, EBI, RBUs, MoST, MoFPDA, BoANR/Pastoral/Agropastoral Bureaus/A gencies, NAIC, HLIs dealing with livestock, fisheries and agriculture, ATA
- Implementation period: 2015-2020

Target 5. By 2020, unsustainable utilization of biodiversity and ecosystem services are reduced

5.1. Technical rationale

Unsustainable utilization of biological resources is one of the major threats to biodiversity in Ethiopia; contributing to degradation of rangelands, forest ecosystems, wetlands and aquatic ecosystems. Therefore, sustainable land and water resource management is required to achieve biodiversity conservation and sustainable utilization.

5.2. Implementation strategy

Ecosystem based approaches of resources management are required to conserve and sustainably utilize biodiversity and ecosystems. To achieve this target, sustainable management of resources such as participatory forest management, sustainable rangeland and aquatic ecosystems management practices need to be adopted. These require development and implementation of regulations and guidelines to control open access over resources on grazing lands, aquatic, wetland and community forests.

5.3. Milestones

- By 2017, regulation and guidelines to promote sustainable utilization of resources on grazing lands, aquatic, wetland and other communal lands are developed and implemented
- By 2020, sustainable utilization of wetlands, aquatic ecosystems, forests and rangelands plants is improved
- By 2020 aquaculture and afforestation practices are expanded, use of non-wood forest products is promoted

5.4. Indicators

- Number of ecosystems and species/breeds managed sustainably
- Number of ecosystems restored

5.5. Actions, implementing institutions and implementation plan

5.5.1. Develop and implement regulations and guidelines to control open access to grazing lands, aquatic ecosystems, wetlands and other communal lands

- i. Lead agency for the implementation: MoEFCC

- ii. Collaborators for the implementation: EBI, MoANR, MoLF/MoEFCC, EBF, MoWIE, HoPR, concerned NGOs, RBUs, BoANR/Pastoral/Agropastoral /Livestock and Fisheries Bureaus/Agencies, BoEFCC, Forest Enterprises, Oromia Pastoral Commission
 - iii. Implementation period: 2015-2017
- 5.5.2. Improve productivities of forage, grazing and rangelands
- i. Lead agency for the implementation: MoLF
 - ii. Collaborators for the implementation: EIAR, RARI, MoFPDA, BoANR/Pastoral/Agropastoral/ Livestock and Fisheries Bureaus/Agencies, HLIs
 - iii. Implementation period: 2015-2020
- 5.5.3. Ensure sustainable use of natural fish stock, applying ecosystem based management, and expanding aquaculture
- i. Lead agency for the implementation: MoLF
 - ii. Collaborators for the implementation: EBI, MoANR, MoEFCC, RBUs, EWCA, EIAR, MoWIE, BoANR, BoEFCC, HLIs, RARI, Bureaus/Agencies of Livestock and Fisheries
 - iii. Implementation period: 2015-2020
- 5.5.4. Promote afforestation and use of non-wood forest products
- i. Lead agency for the implementation: MoEFCC
 - ii. Collaborators for the implementation: MoANR, MoLF, EBF, concerned NGOs, MoFPDA, BoANR/Pastoral/Agropastoral/Bureaus, BoEFCC, Forest Enterprises, Bureaus/Agencies of Livestock and Fisheries
 - iii. Implementation period: 2015-2020

Target 6. By 2020, the area invaded by invasive species is reduced by 75% and measures are in place to regulate and monitor invasive species, including newly emerging ones

6.1. Technical rationale

Invasive species are threats to biodiversity and ecosystem services. Invasive species are spreading rapidly into farm lands, aquatic ecosystems and rangelands of Ethiopia, causing loss of biodiversity, reductions in crop, fish and forage yields. They are displacing indigenous species of natural ecosystems. Though the extent of these damages has not been well documented, they are threatening food security, livelihoods, and human and animal health. Hence, they need to be controlled and eventually eradicated.

6.2. Implementation strategy

Different species are identified as invasive in different regions of Ethiopia. It is necessary to prioritize control and eradication measures on those species with the greatest impact on biodiversity. Therefore, it is important to revise the existing strategies to address problems of invasive species effectively. When taking actions to meet this target, it is worth considering the experiences of some projects which contributed in the development and implementation of control measures on some invasive species. It is also crucial to put in place measures to regulate and monitor invasive species, including newly emerging ones.

6.3. Milestones

- By 2016, status, trends and impacts of major invasive species are reviewed and control strategies are revised
- By 2020, revised control strategies on major invasive species is are implemented
- By 2018, measures to regulate and monitor invasive species, including newly emerging ones are in place and implemented
- By 2020, area covered by the invasive species is reduced by 75%

6.4. Indicators

- Area cleared from invasive species and properly managed
- Trends in expansion of invasive species
- Measures for monitoring invasive species

6.5. Actions, implementing institutions and implementation plan

- 6.5.1. Conduct studies on the status, trends and impacts of major invasive species (prosopis, parthenium weed, water hyacinth, lantana weed, Cochineal insect and others), and revise their control strategy
- i. Lead agency for the implementation: EBI
 - ii. Collaborators for the implementation: MoEFCC, MoANR, MoLF, HLIs, MoFPDA, BoANR/Pastoral/Agropastoral/ Livestock and Fisheries Bureaus/Agencies, BoEFCC
 - iii. Implementation period: 2016
- 6.5.2. Implement the revised strategies to control major invasive species
- i. Lead agency for the implementation: EBI

- ii. Collaborators for the implementation: EIAR, MoEFCC, MoANR, MoLF, MoFPDA, RBUs, BoANR/Pastoral/Agropastoral/Livestock and Fisheries Bureaus/Agencies, BoEFCC, RARI, regional governments, Dire Dawa City Council
 - iii. Implementation period: 2016-2020
- 6.5.3. Put in place and implement measures to regulate and monitor invasive species, including newly emerging ones
- i. Lead agency for the implementation: EBI
 - ii. Collaborators for the implementation: EIAR, MoEFCC, MoANR, MoLF, MoFPDA, RBUs, BoANR/Pastoral/Agropastoral/ Livestock and Fisheries Bureaus/Agencies, BoEFCC, RARI, regional governments, Dire Dawa City Council LIs
 - iii. Implementation period: 2018-2020

Strategic Goal C: Improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity

Target 7. By 2020, area coverage of ecologically representative and effectively managed PAs is increased from 14% to 20%

7.1. Technical rationale

Well governed and effectively managed protected areas (PAs) are proven methods for safeguarding both habitats and populations of species and for delivering important ecosystem services. About 14% of the country's area is designated as PAs. However, most the PAs do not have legal status, and are inadequately protected and this is more pronounced on wetlands and water bodies. There is a need to increase the coverage of PAs, with due attention to their ecosystem representation as well as effectiveness in terms of management. Lack of law enforcement, facility and infrastructure, absence of networks between PAs and wildlife corridors, poor coordination, and weak capacity and low awareness at different levels are some of the problems that need to be addressed in this target. Economic valuation on PAs is another issue that needs to be addressed to realize the target.

7.2. Implementation strategy

To implement this target, some of the selected PAs will require re-demarcation and development of new management plans. Furthermore, there is a need to establish new PAs.

The PAs have to be managed in close collaboration with local communities recognizing their rights. These communities should be empowered to fully engage in governing and managing the PAs and should share fair and equitable benefits arising from their use. Carrying-out economic valuation on selected PAs is also important to give greater visibility amongst policy makers and integrate benefits from PAs into poverty alleviation and development plans so as to ensure sustainability.

7.3. Milestones

- By 2017, eleven PAs are re-demarcated and management plans are developed
- By 2020, additional ecologically representative PAs are established
- By 2020, economic valuation for seven PAs is conducted
- By 2020, benefits from PAs are integrated into poverty alleviation and overall national development plans

7.4. Indicators

- Percent increase in area coverage of ecologically representative PAs
- Percentage of properly managed PAs

7.5. Actions, implementing institutions and implementation plan

7.5.1. Identify gaps in the level of representativeness of the existing PAs

- i. Lead agency for the implementation: EWCA
- ii. Collaborators for the implementation: EBI, MoEFCC, MoANR, MoLF, concerned NGOs, Oromia Forest and Wildlife Enterprise, Bureaus of Wildlife and Tourism of regions, RBUs where PAs are located
- iii. Implementation period: 2015

7.5.2. Establish ecologically representative PAs

- i. Lead agency for the implementation: EWCA
- ii. Collaborators for the implementation: EBI, MoEFCC, MoANR, MoLF, Oromia Forest and Wildlife Enterprise, Bureaus of Wildlife and Tourism of Amhara, SNNPR, Gambella, Benshangul Gumuz, Somali, Tigray, Dire Dawa City Council, RBUs
- iii. Implementation period: 2016-2020

7.5.3. Re-demarcate 11 of the PAs and develop management plans for seven PAs

- i. Lead agency for the implementation: EWCA

- ii. Collaborators for the implementation: EBI, MoEFCC, MoANR, MoLF, Oromia Forest and Wildlife Enterprise, Bureaus of Wildlife and Tourism of regions where PAs are located, RBUs
 - iii. Implementation period: 2015-2017
- 7.5.4. Conduct economic valuation for seven PAs
- i. Lead agency for the implementation: EWCA
 - ii. Collaborators for the implementation: EBI, MoEFCC, HLIs, Ethiopian Economic Association
 - iii. Implementation period: 2015-2020

Target 8. By 2020, *ex situ* conservation of agro-biodiversity, wild plants, animals and microbes; with special emphasis on endemic, endangered, economically or ecologically important species and breeds is increased and standards of the existing *ex situ* conservation are improved

8.1. Technical rationale

The diversity of crops and their wild relatives, animals, forest and rangeland plants and microbial genetic resources have been contributing to national economy and local livelihood improvements of Ethiopian communities. However, they are declining due to direct and indirect pressures. In the face of climate change and outbreaks of emerging diseases and pests, conserving these resources provides future food security options for the country. The *ex situ* conservation activities are inadequate and encountering different management problems. Thus, strengthening the *ex situ* conservation of agro-biodiversity, forest and rangeland plants, animals and microbes; with special emphasis on endemic, endangered and economically or ecologically important species and breeds is the emphasis of the target.

8.2. Implementation strategy

Assessment of conservation status of agro-biodiversity, forest and range land plants, animals and microbes are the major activities required to implement this target. Subsequently, collections of priority germplasm, herbarium and animal specimen need to be strengthened. Moreover, the status of conservation of the existing *ex situ* conservation sites, with full participation of local communities has to be improved.

8.3. Milestones

- By 2017, conservation priorities are identified and set for species, with special emphasis on species that are endemic, endangered, and/or of economic or ecological importance
- By 2019, Natural History Museum and National Herbarium are established
- By 2020, *ex situ* collections are increased and status of the existing sites are improved
- By 2020, number of Botanical Gardens are increased

8.4. Indicators

- Number of ecologically representative *ex situ* conservation sites
- Number of species/breeds under *ex situ* conservation
- Number of *ex situ* conservation sites to which standard conservation practices have been developed
- A Natural History Museum and Herbarium established
- Number of botanical gardens

8.5. Actions, implementing institutions and implementation plan

- 8.5.1. Identify threatened species of agro-biodiversity, wild plants, animals and microbial genetic resources, and set priority for collection and conservation
- i. Lead agency for the implementation: EBI
 - ii. Collaborators for the implementation: RBUs, HLLs, EIAR, RARIs
 - iii. Implementation period: 2015-2017
- 8.5.2. Establish Natural History Museum and National Herbarium
- i. Lead agency for the implementation: EBI
 - ii. Collaborators for the implementation: AAU, EWCA
 - iii. Implementation period: 2017-2019
- 8.5.3. Increase *ex situ* collections of species/breeds/ strains and accessions/straws from:
- 62 species to 99 species (76,521 to 80,571 accessions) of field and horticultural crops
 - 714 species to 1,214 species (1,704 to 4,746 accession) for forests and rangeland plants

- Five breeds/species to eight breeds/species (32,600 straws to 132,600 straws) for domestic and wild animals
 - 550 to 1000 species/strains of microbes
 - i. Lead agency for the implementation: EBI
 - ii. Collaborators for the implementation: RBUs, EIAR, RARIs, HLIs
 - iii. Implementation period: 2015-2020
- 8.5.4. Increase the number of botanical gardens from three to 10 sites
- i. Lead agency for the implementation: EBI
 - ii. Collaborators for the implementation: HLIs, RBUs, BoEFCC, BoANR/Pastoral/Agropastoral Bureaus
 - iii. Implementation period: 2015-2020
- 8.5.5. Identify gaps in and improve the standards of *ex situ* conservation
- i. Lead agency for the implementation: EBI
 - ii. Collaborators for the implementation: EWCA, HLIs, RBUs, EIAR, RARIs
 - iii. Implementation period: 2015-2020

Target 9. By 2020, *in situ* conservation sites for important species and breeds are increased and the standards of the existing *in situ* conservation are improved

9.1. Technical rationale

The diversity of crops and their wild relatives, animals, forest and rangeland plants and microbial genetic resources have been contributing to national economy and local livelihood improvements of the communities. However, they are declining due to direct and indirect pressures. In the face of climate change and outbreaks of emerging diseases and pests, conserving these resources provides future food security options for the country. The *in situ* conservation activities are inadequate and encountering different management problems. Thus, strengthening the *in situ* conservation of agro-biodiversity, forest and rangeland plants, animals and microbes; with special emphasis on endemic, endangered and economically or ecologically important species and breeds is the emphasis of the target.

9.2. Implementation strategy

Actions required to implement this target are assessing crops and their wild relatives, animals, forest and rangeland plants and microbial genetic resources followed by

identification and prioritization of potential *in situ* sites. Moreover, gaps in the existing *in situ* sites are identified. Then, new *in situ* sites are established and status of the existing ones is improved, with full participation of local communities.

9.3. Milestones

- By 2017, crops and their wild relatives, forest and rangeland plants, animal and microbial genetic resources are assessed, and *in situ* conservation priorities are set
- By 2020, *in situ* conservation sites are increased and management plans are developed

9.4. Indicators

- Number of *in situ* conservation sites
- Number of species/breeds under *in situ* conservation
- Number of *in situ* conservation sites to which standard conservation practices have been developed

9.5. Actions, implementing institutions and implementation plan

9.5.1. Identify threatened species and sites/ecosystems and set priority for *in situ* conservation

- i. Lead agency for the implementation: EBI
- ii. Collaborators for the implementation: RBUs, EWCA, MoEFCC, MoANR, MoLF, HLIs
- iii. Implementation period: 2015-2017

9.5.2. Increase the number of *in situ* conservation from:

- 14/19 to 24/69 species/varieties of field and horticultural crops
 - 600 to 1000 species for forest and rangeland plants
 - 15 to 36 breeds/species of animals
- i. Lead agency for the implementation: EBI
 - ii. Collaborators for the implementation: EWCA, MoANR, MoLF, MoFPDA, MoEFCC, RBUs, BoANR, Pastoral/Agropastoral/ Livestock and Fisheries Bureaus/Agencies, BoEFCC, concerned NGOs
 - iii. Implementation period: 2015-2020

9.5.3. Develop management plans for *in situ* conservation sites

- i. Lead agency for the implementation: EBI
- ii. Collaborators for the implementation: EWCA, MoANR, MoLF, MoEFCC, RBUs, BoANR/Pastoral/Agropastoral Bureaus/Agencies, BoEFCC, concerned NGOs
- iii. Implementation period: 2016-2020

Strategic Goal D: Enhance the benefits to all from biodiversity and ecosystem services

Target 10. By 2020, the contribution of biodiversity and ecosystem services, including climate change adaptation and mitigation, is improved through increasing forest cover from 15% to 20% of the country, increased designated total area of wetlands from 4.5% to 9.0% and doubling the area of restored degraded lands

10.1 Technical rationale

Conservation, restoration and sustainable utilization of forests and rangeland plants, woodlands, wetlands and other ecosystems are the means to sequester carbon dioxide and reduce the effect of greenhouse gases. Therefore, maintaining these ecosystems helps to ensure the continuation of carbon sequestration as well as many other ecosystem services. Restored ecosystems can have improved resilience and can contribute to climate change adaptation and generate additional benefits for the people, in particular local communities.

10.2 Implementation strategy

There are already huge efforts in Ethiopia for forest ecosystem restoration through area closures and massive tree plantings. Increasing forest cover, designation of wetlands and restoration of degraded areas are the major activities required to realize this target. Participatory Forest Management, which is underway in different parts of the country, will be strengthened through 2020. Moreover, climate change mitigation activities such as REDD+ and CRGE strategy will be widely implemented.

10.3 Milestones

- By 2020, the national area under forest cover and designated wetlands are raised to 20 % and 9%, respectively and restored degraded area is doubled

- By 2020, incentives for the local communities through carbon trade from high forests, woodlands and traditional agro-forestry are generated

10.4 Indicators

- Percent increase in forest cover
- Percent increase in designated wetlands
- Percent increase in restored degraded areas

10.5 Actions, implementing institutions and implementation plan

10.5.1. Increase forest cover from 15% to 20% through afforestation and re-forestation

- i. Lead agency for the implementation: MoEFCC
- ii. Collaborators for the implementation: MoANR, EBI, RBUs, BoANR, BoEFCC, Forest and Wildlife Enterprises, concerned NGOs
- iii. Implementation period: 2015-2020

10.5.2. Double area of designated wetlands

- i. Lead agency for the implementation: MoEFCC
- ii. Collaborators for the implementation: MoANR, MoLF, EBI, RBUs, EWCA, BoANR, Bureaus/Agencies of Livestock and Fisheries, BoEFCC, Forest and Wildlife Enterprises, concerned NGOs
- iii. Implementation period: 2015-2020

10.5.3. Increase restored area of degraded land from 10 to 20 million hectares

- i. Lead agency for the implementation: MoANR
- ii. Collaborators for the implementation: MoEFCC, MoLF, EBI, RBUs, BoANR, MoFPDA, Bureaus/Agencies Livestock Fisheries, BoEFCC, Forest Enterprises, concerned NGOs
- iii. Implementation period: 2015-2020

10.5.4. Generate incentives for the local communities through carbon trade from high forests, woodlands and traditional agro-forestry

- i. Lead agency for the implementation: MoEFCC
- ii. Collaborators for the implementation: MoANR, RBUs, EWCA, BoANR, and BoEFCC, Forest and Wildlife Enterprises, concerned NGOs
- iii. Implementation period: 2015-2020

Target 11. By 2020, the number of genetic materials accessed for research and development, and fair and equitable sharing of benefits arising from their use are increased by 24% and 39%, respectively

11.1 Technical rationale

The concept of Access to Genetic Resources and Fair and Equitable-sharing of Benefits arising from their use (ABS) emerged during the negotiations on the Convention on Biological Diversity in Rio de Janeiro, 1992. Due to limited capacity and lack of effective enforcement and follow-up mechanisms on the ABS, the government of Ethiopia and the local communities have not been adequately benefited from access to their genetic resources. This has contributed to the degradation of the country's biodiversity. Therefore, concerted efforts are required to maximize benefits from access to potential genetic materials.

11.2 Implementation strategy

Implementation of this target will require identification of potential genetic resources for access (bio-prospecting), market promotion, capacity building, awareness raising on ABS at various levels, implementing the Nagoya Protocol and accommodating its principles into the national laws to ensure fair and equitable sharing of benefits arising from the use of genetic resources.

11.3 Milestones

- By 2020, genetic materials accessed for research and development, and fair and equitable sharing of benefits arising from their use are increased by 24% and 39%, respectively
- By 2020, number of bio-prospected species and associated community knowledge are increased by 167%

11.4 Indicators

- Number of genetic materials accessed for research and development
- Number of genetic materials accessed for fair and equitable benefit sharing

11.5 Actions, implementing institutions and implementation plan

11.5.1. Build material and human capacity for bio-prospecting and negotiation

- i. Lead agency for the implementation: EBI
- ii. Collaborators for the implementation: MoANR, MoLF, MoFED, HLIs, EIAR, MoEFCC
- iii. Implementation period: 2015-2020

11.5.2. Promote and increase the number of genetic materials for research and development from 163,834 to 203,926 accessions and bio-prospected species for access and fair and equitable benefit sharing from their use from 13 to 18 species

- i. Lead agency for the implementation: EBI
- ii. Collaborators for the implementation: M MoANR, MoLF, EIAR, RARIs, HLIs, EIPO, Media, MoJ, RBUs
- iii. Implementation period: 2015-2020

11.5.3. Control unauthorized movement of genetic resources

- i. Lead agency for the implementation: EBI
- ii. Collaborators for the implementation: Customs and Revenue Authority, Civil Aviation, National Post Office, DHL, RBUs, MoND, Police, National Interpol Coordination Office
- iii. Implementation period: 2015-2020

Target 12. By 2020, women's access to and control over biodiversity resources and ecosystem services are improved

12.1. Technical rationale

The government of Ethiopia doesn't discriminate citizens on the basis of gender, but in practice gender imbalance exists in areas of biodiversity conservation and sustainable use. Biodiversity conservation cannot be sustained without the involvement of different sectors of the societies. Women are the primary conservers and promoters of biodiversity. However, they don't have equal rights with their men counterparts in using what they have conserved. There is also lack of clear guideline that helps to mainstream gender into biodiversity conservation and management.

12.2. Implementation strategy

Recognizing and supporting gender equality, and focusing on women and their contribution to conservation and sustainable use of biodiversity are the main activities required to ensure women's access to and control over biodiversity resources of the country. This will, *inter alia*, require establishing and strengthening of networks to promote gender mainstreaming within biodiversity conservation and sustainable use. Therefore, preparation of regulations and guidelines, and their implementation to promote awareness and involvement of women in all biodiversity programmes and projects are the major activities that will help to realize this target.

12.3. Milestones

- By 2015, baseline data on the level of Women's access to and control over biodiversity resources and ecosystem services are generated
- By 2020, national gender mainstreaming guideline on biodiversity resources and ecosystem services are developed and implemented
- By 2020, the level of improvement of women's access and control over biodiversity resources and ecosystem services is evaluated

12.4. Indicators

- Percent increase in women's access to and control over biodiversity resources and ecosystem services
- National gender mainstreaming guideline

12.5. Actions, implementing institutions and implementation plan

12.5.1. Generate baseline data on the level of women's access to and control over biodiversity resources and ecosystem services

- i. Lead agency for the implementation: EBI
- ii. Collaborators for the implementation: CSA, MoANR, MoLF, MoWCA, RBUs
- iii. Implementation period: 2015

12.5.2. Develop and implement national gender mainstreaming guideline on biodiversity resources and ecosystem services

- i. Lead agency for the implementation: EBI

ii. Collaborators for the implementation: MoANR, MoLF, MoWCA, MoEFCC, concerned NGOs

iii. Implementation period: 2016-2020

12.5.3. Evaluate the level of improvement of women's access to and control over biodiversity resources and ecosystem services

i. Lead agency for the implementation: MoWCA

ii. Collaborators for the implementation: EBI, MoANR, MoLF, MoEFCC, CSA, RBUs

iii. Implementation period: 2020

Target 13. By 2018, benefits from biodiversity are increased through value addition to at least 12 agro-biodiversity species and products, and creating market linkages for five species of medicinal plants; taking into account the needs of women and local communities

13.1 Technical rationale

Smallholders and pastoralists are custodians of biodiversity. Nevertheless, biodiversity is in danger of disappearing. Finding niche markets for selected species and their products is one possible way of ensuring the survival of biodiversity and enabling people who conserve them to earn more. These can be achieved through searching local, national and international markets and enhancing information on the marketing channels to increase the value of genetic resources. Although value addition and finding niche markets have been initiated for some agro-biodiversity, most communities have not yet been benefited. Thus, value addition and finding niche markets will be strengthened.

13.2 Implementation strategy

Implementation of this target will require identification of selected species, focusing on farmers' varieties, breeds and non-timber forest products (NTFPs) with high market potential and those that are of a priority for conservation. Improving production, processing, value addition, product certification and searching for niche markets are the most important activities pursued to achieve the target.

13.3 Milestones

- By 2018, value additions are conducted for at least 12 agro-biodiversity and their value chains are studied

- By 2020, niche markets for the value added and five species of medicinal plant genetic resources are created

13.4 Indicators

- Number of value added products
- Number of newly established market links

13.5 Actions, implementing institutions and implementation plan

13.5.1 Conduct value addition activities for at least 12 agro-biodiversity species and products (tef, enset, wheat, coffee, sesame, haricot bean, black cumin, barley, soya bean, chick pea, meat and milk), including studying their value chains, taking into account geographic origins

- i. Lead agency for the implementation: MoANR
- ii. Collaborators for the implementation: Ethiopian Standards Authority, MoI, EBI, MoLF, MDTI, ECXA, Cooperative Agency, private sector, BoANR, Bureaus/Agencies of Livestock and Fisheries ATA, concerned NGOs, cooperatives/associations EIAR, RARIs, HLIs
- iii. Implementation period: 2015-2018

13.5.2 Create linkage to potential niche markets for the value added agro-biodiversity species and products and five species of medicinal plants (*Hibiscus sabdariffa*, *Moringa stenopetala*, *Withania somnifera*, *Embelia schimperi* and *Podocarpus falcatus*)

- i. Lead agency for the implementation: MoANR
- ii. Collaborators for the implementation: EBI, MoLF, Ethiopian Standards Authority, MoI, Cooperative Agency, BoANR, Bureaus/Agencies of Livestock and Fisheries private sector, MDTI, ECXA, ATA, cooperatives/association, MoFA
- iii. Implementation period: 2015-2020

Strategic Goal E: Enhance implementation through participatory planning, knowledge management and capacity building

Target 14. By 2020, stakeholders' integration, including the participation of local communities in biodiversity conservation and sustainable utilization, is strengthened

14.1 Technical rationale

Stakeholders working in the areas of biodiversity conservation and sustainable utilization in Ethiopia lack integration and collaboration in their activities. Apart from sporadic consultation at project/programme initiation phases, many stakeholders working in the same area also lack interest to fully engage local communities. These, together with the poor institutional set ups, make efforts inefficient and uncoordinated in the sector. As the result, their efforts have been unsuccessful in reducing the loss of biodiversity and ecosystem services.

14.2 Implementation strategy

There are many actors including government institutions, NGOs, business communities and individuals who are making efforts towards conservation, sustainable utilization of biodiversity and climate change mitigation. Implementation of this target needs to integrate activities and collaborations of all the stakeholders. Moreover, making local communities to fully participate in the community-based management plans and implementation activities will have more impact to achieve the target. Establishing and strengthening Biodiversity Units of regions, including Dire Dawa City Council and Biodiversity Centers at representative bio-geographical regions of the country are required to materialize this target.

14.3 Milestones

- By 2015, National Biodiversity Council and National Biodiversity Technical Committee are in place
- By 2020, 10 Biodiversity Units at different regions and seven Centres at representative bio-geographical regions of the country are established and strengthened

14.4 Indicators

- Level of local communities and stockholders participation
- Level of NBSAP implementation

14.5 Actions, implementing institutions and implementation plan

14.5.1 Put in place National Biodiversity Council and National Biodiversity Technical Committee

- i. Lead agency for the implementation: EBI
- ii. Collaborators for the implementation: HoPR, MoANR, MoLF, MoEFCC, EWCA, EIAR, MoFED, MoE
- iii. Implementation period: 2015

14.5.2 Establish and strengthen 10 Biodiversity Units at regions and seven Centers at representative bio-geographical areas

- i. Lead agency for the implementation: EBI
- ii. Collaborators for the implementation: MoANR, MoLF, MoEFCC, regional governments, Dire Dawa City Council
- iii. Implementation period: 2015-2020

Target 15. By 2017, national biodiversity information system is strengthened, information dissemination strategy is devised and Clearing House Mechanism is updated

15.1 Technical rationale

Weak information exchange mechanisms and strategies among the stakeholders are affecting the effectiveness of conservation and sustainable utilization of biodiversity in Ethiopia. Thus, strengthening information exchange mechanisms including information dissemination and updating of the Clearing House Mechanism (CHM) are the means to implement this target.

15.2 Implementation strategy

Stakeholders' involvement throughout the process of designing, planning and implementation of NBSAP is essential to ensure that the plans would be effectively communicated and implemented. Thus; creating national data base devising networking

strategies, updating the CHM and establishing ABS Clearing House Mechanism (ABS-CHM) are the key activities to strengthen information exchange.

15.3 Milestones

- By 2015, CHM is updated and ABS-CHM is established
- By 2017, national biodiversity database is in place
- By 2018, information networking strategies are devised

15.4 Indicators

- Status of National Biodiversity Database
- Status of CHM and ABS-CHM

15.5 Actions, implementing institutions and implementation plan

15.5.1 Update Clearing House Mechanism (CHM) and establish ABS-CHM

- i. Lead agency for the implementation: EBI
- ii. Collaborators for the implementation: MoANR, MoLF, MoEFCC, EWCA, EIPO, HLIs, EIAR, RARI, BoANR/Pastoral/Agro-pastoral Bureaus, Bureaus/Agencies of Livestock and Fisheries, BoEFCC, concerned NGOs
- iii. Implementation period: 2015

15.5.2 Establish and strengthen national biodiversity database and dissemination strategy

- i. Lead agency for the implementation: EBI
- ii. Collaborators for the implementation: MoANR, MoEFCC, MoLF, EWCA, EIPO, HLIs, EIAR, RARI, concerned NGOs BoANR/Pastoral/Agro-pastoral Bureaus, BoEFCC, Bureaus/Agencies of Livestock and Fisheries
- iii. Implementation period: 2017

15.5.3 Devise information networking strategies

- i. Lead agency for the implementation: EBI
- ii. Collaborators for the implementation: MoANR, MoEFCC, MoLF, EWCA, EIPO, HLIs, EIAR, RARI, CBOs, concerned NGOs
- iii. Implementation period: 2015-2018

Target 16. By 2020, knowledge and innovations related to biodiversity values, ecosystem functioning, status and trends, and the consequences of its loss are generated, reviewed, compiled and applied

16.1 Technical rationale

In Ethiopia, there is no sufficient information on values of biodiversity and ecosystem services. The status, trends and consequences of biodiversity loss are also not well studied. Therefore, there is high need to compile the exiting information and generate new knowledge in order to identify status, tends, threats and determine values, and set priorities for conservation and sustainable utilization. Full implementation of this target will also contribute to the achievements of the other targets outlined in the Strategic Plan 2015-2020. Effective implementation of the target will also strengthen the policy-science integration through information access.

16.2 Implementation strategy

Implementation of this target requires generation and compilation of knowledge related to ecosystem functioning, status and trends, and causes and consequences of loss of biodiversity as well as values of biodiversity and ecosystem services. It also requires integration of the knowledge into biodiversity conservation and sustainable utilization strategies. Therefore, more investment on research is cr itical for the full implementation of the target.

16.3 Milestones

- By 2020, valuation studies on at least two forest and rangeland ecosystems and 11 species/breeds/varieties are conducted
- By 2020, information on status, trends and threats of biodiversity, ecosys tem functioning and services, and ABS related issues are generated and applied for further research and development

16.4 Indicators

- Number of compiled knowledge and innovations on biodiversity
- Number of generated knowledge and innovations on biodiversity

- Number of knowledge and innovations applied in biodiversity conservation and sustainable use

16.5 Actions, implementing institutions and implementation plan

16.5.1 Conduct research on status, trends and threats of biodiversity and ABS related issues

- i. Lead agency for the implementation: EBI
- ii. Collaborators for the implementation: EIAR, RARIs, MoST, HLIs, EWCA, RBUs, EIPO
- iii. Implementation period: 2015-2020

16.5.2 Apply generated knowledge and innovations for development and further research

- i. Lead agency for the implementation: NPC
- ii. Collaborators for the implementation: EBI, MoFED, EIAR, HLIs, MoEFCC, MoANR, MoLF, EWCA, MoWIE, MoMPNG, Mol, HoPR
- iii. Implementation period: 2016-2020

16.5.3 Conduct valuation studies on at least six species/varieties of field and horticultural crops, five breeds/species of animals and two forest and rangeland ecosystems

- i. Lead agency for the implementation: EBI
- ii. Collaborators for the implementation: MoEFCC, MoFED, MoANR, MoLF, EWCA, Economic Society of Ethiopia, HLIs, concerned NGOs
- iii. Implementation period: 2016-2020

Target 17. By 2020, community knowledge, innovations and practices of local communities related to biodiversity are documented, subject to the national legislation, and relevant international obligations, and integrated into the national development strategies with the full and effective participation of local communities

17.1 Technical rationale

Ethiopia is a country with more than 84 ethnic groups. These ethnic groups inhabit in different agro-ecological zones and their interaction with diversified biophysical environments resulted in diverse community knowledge related to biodiversity. Nevertheless, community knowledge has not been well documented and used in conservation and sustainable utilization of biodiversity. Moreover, the knowledge has not been integrated into national development and poverty alleviation strategies. Therefore,

further efforts are required to document knowledge, innovations and practices of local communities. There is also a need to integrate and apply the knowledge into national development strategies, with the full participation of local communities.

17.2 Implementation strategy

In Ethiopia, documented community knowledge, innovations and practice, relevant to conservation and sustainable utilization of biodiversity are scarce and fragmented. Therefore, implementation of this target will start with reviewing the existing documents, and recording the undocumented ones. Devising a strategy for communicating and integrating the knowledge, innovations and practices of local communities into the national and local development and poverty alleviation strategies is another activity required to implement this target.

17.3 Milestones

- By 2018, existing knowledge, innovations and practices of local communities relevant to biodiversity and ecosystem services are reviewed, documented and communicated
- By 2020, knowledge, innovations and practices of local communities relevant to conservation and sustainable utilization of biodiversity are communicated, and integrated into national and local development and poverty alleviation strategies

17.4 Indicators

- Number of documented community knowledge, innovations and practices
- Number of community knowledge, innovations and practices integrated into local and national development strategies

17.5 Actions, implementing institutions and implementation plan

- 17.5.1 Review, document and communicate existing knowledge, innovations and practices of local communities relevant to biodiversity
- i. Lead agency for the implementation: EBI
 - ii. Collaborators for the implementation: EBF, HLIs, RBUs, EIPO, concerned NGOs, MoCT
 - iii. Implementation period: 2016-2018

17.5.2 Integrate knowledge, innovations and practices of local communities relevant to biodiversity into national and local development strategies

- i. Lead agency for the implementation: NPC
- ii. Collaborators for the implementation: EBI, MoFED EBF, HLIs, MoI, EIPO, RBUs
- iii. Implementation period: 2017-2020

Target 18. By 2020, mobilization of financial resources from internal and external sources required for effective implementation of the strategy is increased substantially

18.1. Technical rationale

One of the major obstacles for the implementation of the previous NBSAP was limitation in financial resources. The government of Ethiopia is highly committed to support biodiversity conservation and sustainable utilization endeavours. In light of multiple challenges biodiversity and ecosystems are facing, however, the financial resources from the government alone cannot support full implementation of the current Strategic Plan. Therefore, mobilization of substantial amount of internal and external funds is critically required to effectively implement the Strategic Plan 2015 -2020.

18.2. Implementation strategy

Effective implementation of the current NBSAP requires full support and cooperation of the stakeholders and the government of Ethiopia. Moreover, it requires substantial financing both from national and international sources. Therefore, the focal institute should develop financial resources mobilization strategy.

18.3. Milestones

- By 2015, Competent project proposals for seeking funds are developed
- By 2015, financial resources mobilization strategy is in place

18.4. Indicators

- Amount of funds secured
- The level of implementation of NBSAP

18.5. Actions, implementing institutions and implementation plan

18.5.1. Develop competent projects for seeking funds

- i. Lead agency for the implementation: EBI
- ii. Collaborators for the implementation: EWCA, MoEFCC, MoANR, MoLF, HLIs, EWNHS, RBUs
- iii. Implementation period: 2015-2020

18.5.2. Put in place financial resources mobilization strategy

- i. Lead agency for the implementation: EBI
- ii. Collaborators for the implementation: MoANR, MoLF, MoE, EWCA, MoEFCC, MoFED
- iii. Implementation period: 2016

PART II

2. IMPLEMENTATION ARRANGEMENTS

2.1. Coordination

The Ethiopian Biodiversity Institute is responsible for the conservation and sustainable utilization of biodiversity, and ensuring access to genetic resources and the fair and equitable sharing of benefits arising from their use. It is also the Focal Institute to the Convention on Biological Diversity (CBD). Therefore, the Institute will take the overall responsibility of coordinating the implementation of the Strategic Plan 2015-2020. The Focal Institute will facilitate the establishment of National Biodiversity Technical Committee and National Biodiversity Council. It will also organize biannual National Biodiversity Technical Committee as well as annual stakeholders and National Biodiversity Technical Committee meetings. The Institute will also formulate binding instrument that should be agreed upon by the concerned lead and collaborating institutions.

National Biodiversity Technical Committee

National Biodiversity Technical Committee (NBTC) is a technical wing that shall follow up the implementation of the NBSAP. It is composed of heads of RBUs of all regional states including Dire Dawa City Council, a representative from each implementing lead agency, and a representative from EBF, IPBES, National Chamber of Commerce, local and international NGOs and Ministry of Information Communication.

The Chairperson of the NBTC will be the Deputy Director General of the Coordinating Institute, and the vice chairperson and the secretary will be elected by the Technical Committee from its members. The NBTC shall convene its meeting every six months a year, in first weeks of January and July.

The major task of the NBTC is evaluating progresses of implementations of the NBSAP. Its other tasks include approving various formats and strategies such as communication, education and public awareness and financial resources mobilization strategies; monitoring and evaluation, and reporting formats as well as detailed tasks outlined for the actions of the Strategic Plan. Moreover, NBTC is responsible to carry-out other activities that may be advised by the National Biodiversity Council.

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The findings on the progress of implementation reported from both NBTC meetings will be presented to the annual National stakeholders' workshop and National Biodiversity Council by the chairperson of the NBTC. Upon the call by its chairperson, the NBTC may convene urgent meeting/meetings, as the case may be, in addition to their planned biannual meetings.

National Biodiversity Council

National Biodiversity Council (NBC) is the highest body that oversees the implementation of the NBSAP, and provides strategic direction. Members of the NBC will be representatives from HoPRs, EBI, MoANR, MoLF, MoEFCC, EWCA, MoE, MoWCA, MoFED, and MoST. Local and international NGOs, and National Chamber of Commerce will be represented by one member each.

The chairperson of the NBC will be the Minister of Environment, Forest and Climate Change and the vice Chairperson will be a person from the appropriate Standing Committee of the House of the People's Representatives of the Federal Democratic Republic of Ethiopia. The secretary of the committee will be the Director General of the Ethiopian Biodiversity Institute.

The NBC shall meet once a year, immediately after the stakeholders' workshop. Based on the summary of the findings from both NBTC meetings and annual stakeholder workshop, the NBC will provide strategic directions to the NBTC, including revisiting the plan, if necessary. Upon the call through its chairperson, the NBC may convene an urgent meeting/meetings, in addition to its annual meeting.

2.2. Resource Mobilization

Most of the actions set in the NBSAP are planned in a way that they can be mainstreamed into different sectoral and cross-sectoral plans, and will be implemented with government budgets allocated to the sectors. To effectively accomplish the actions and targets outlined in the NBSAP, however, substantial support from both internal and external funding sources is required.

To secure these funds, a separate portfolio of funding strategy will be developed by the Focal Institute. The strategy will also contain the disbursement component to release funds secured from different sources for the implementing agencies. The funding strategy will

serve as the operational national standing document for funding mechanism for the implementation period of 2015 through 2020.

2.3. Plans for Clearing House Mechanism

One of the most important drawbacks of the previous NBSAP of Ethiopia was lack of responsible national coordinating system that resulted in weak information exchange. The Clearing House Mechanism (CHM), which was established by the SCBD worldwide for the purposes of availing information to interested parties, is one of the crucial tools to fill such gaps and this should be supported by networking national stakeholders and ABS-CHM that shall be established at the beginning of the implementation period. In addition to updating the CHM, establishment of information networks need to be expanded through regions and institutions.

2.4. Monitoring and Evaluation

Monitoring and evaluation shall be conducted by a group of experts from different disciplines set by NBTC and its outcomes shall be reported to NBTC, stakeholders and the NBC in a step by step manner, based on the agreed upon format and work plan. Monitoring and evaluation formats will be formulated by the Focal Institute.

2.5. Reporting

The RBUs and lead agencies are required to submit their respective implementation progress reports to the focal institute on quarterly basis. These reports will be compiled and presented to the meeting of the NBTC at the biannual meetings of the Technical Committee by the Focal Institute. The NBTC meetings will be conducted in January and July. In the case of July meeting, the findings of both NBTC meetings will be synthesized and presented to annual stakeholders workshop that will be conducted a week later from the July NBTC meeting. The outcome of both NBTC meetings and national stakeholders' workshop will be synthesized and submitted to coordinating Institute, and then will be presented to National Biodiversity Council (NBC) by Director General of the coordinating Institute. The outcomes of the meetings and strategic directions of the NBC will be communicated to the respective stakeholders through coordinating Institute. In addition, the annual progress report and the outcomes of the implementation will be communicated to the concerned international bodies such as the SCBD by the coordinating Institute.

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