

National Biodiversity Strategy and Action Plan (Yemen)



Republic of Yemen

Ministry of Water and Environment

Environment Protection Authority

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A landscape photograph showing terraced rice fields in a valley. The fields are filled with water, and a vibrant rainbow is visible in the sky above the fields. The scene is captured from an elevated perspective, showing the intricate patterns of the terraces and the surrounding terrain.

NBSAP aims:

- **To promote the conservation and the sustainable use of biodiversity based on strategic vision.**
- **Highlighting 21 strategic objectives each of which targeted to one sector or an issue hindering the sustainable use of biological resources.**

The scope of the strategy:

- Protection, restoration, sustainable use, equitable sharing, and systematic monitoring of Republic of Yemen's biodiversity.
- It includes a long-term comprehensive plan and a priority action plan. The latter includes a set of 7 urgent actions expressed in project concept's format indicating project's title, goals, objectives, main outputs, main activities, timeframe, estimated fund and lead agency and key partners.

NBSAP PREPARATION PROCESS:

The NBSAP is the result of the nationwide participatory process among all relevant government agencies & NGOs.

The NBSAP addresses a number of environmental thematic areas such as:

- degradation of natural habitats (forests, wetlands, coastal habitats),
- loss of biodiversity .
- Lack of management of eco-tourism; and sets some priorities for action within these areas.



The priorities of the NBSAPY :

- clear initial targets for activities and actions
- an agenda for action has been developed for each of the NBSAPY objectives.
- These agendas list priority targets and recommended actions as short-term (1-3 years), medium-term (4-8 years) or long-term (>8 years). Each agenda is intended to represent a list and schedule of activities that can realistically be achieved

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BIODIVERSITY PROBLEMS

Main problems including:

- *Habitat destruction*
- *Degradation and conversion of natural habitat.*
- *Desertification, including wind erosion and sand dune encroachment*
- *Agricultural expansion and poor agricultural practices.*
- *Wood cutting for firewood, timber and charcoal production.*
- *Overgrazing of rangelands including loss of sustainable practices of sound rangeland management by local people.*
- *Over-hunting and indiscriminate killing of wildlife species, especially ungulates and carnivores.*
- *Overuse and depletion of limited fresh water.*
- *Degradation of wetland ecosystems.*
- *Contamination of ecosystems with sewage, industrial waste*

- *Smuggling and uncontrolled exporting of indigenous livestock and native genetic species.*
- *Marine and coastal habitat degradation.*
- *Over-exploitation, pollution and mismanagement of fishing in the Red Sea, Arabian sea, Gulf of Aden and Yemeni Islands.*
- *Degradation of coastal and marine habitats.*
- *Sharp decline in important marine resources.*
- *Destruction of coral reefs and underwater habitats.*
- *Deterioration of native genetic resources.*
- *Desertification, terraces and rangeland degradation associated with rapid urbanization.*
- *Increased water depletion .*
- *Declining agricultural production.*
- *Over-grazing and over-cutting of trees .*
- *Loss of natural habitats as a result of deforestation, desertification and land conversion.*
- *Destruction of sensitive natural habitats .*

A National Vision

“ To achieve a better quality of life for all Yemeni people through the conservation and sustainable use of biological resources and stabilizing resource consumption in harmony with the limits of the carrying capacity of nature and the integrity of creation.”



Strategic Goals:

Strategic Goal 1. Conservation of Natural Resource.

Key Issues

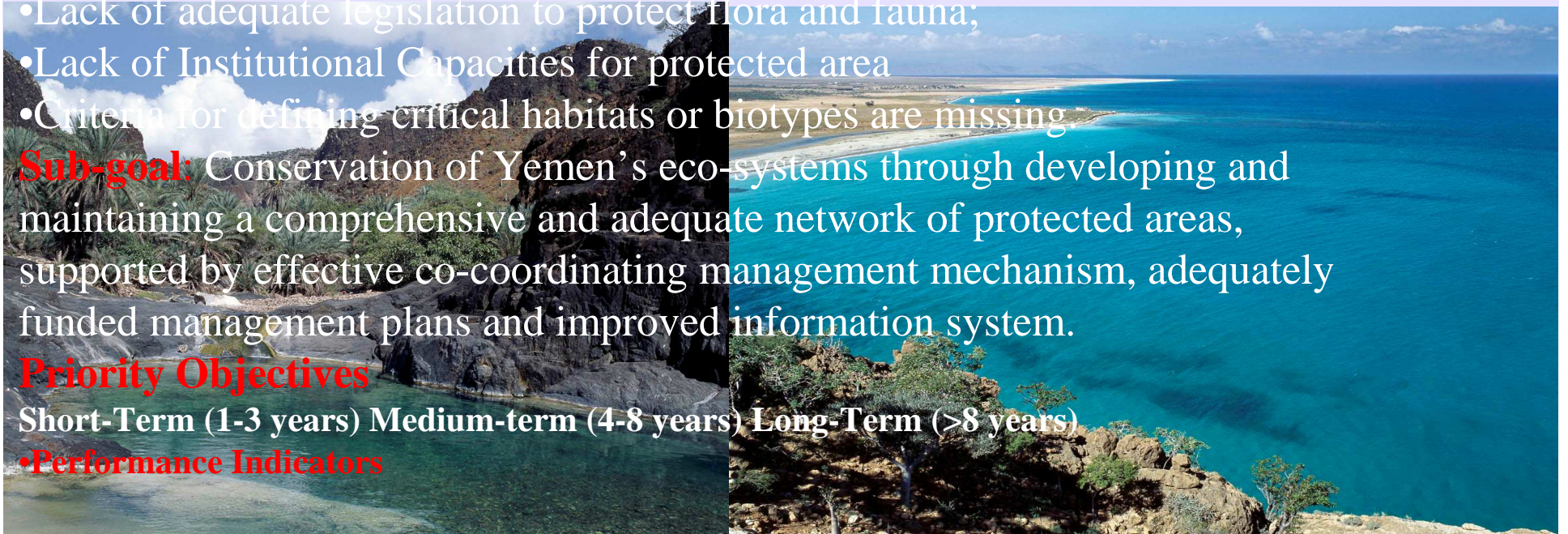
- Lack of effective administration and conservation management for protected areas;
- Limited geographic coverage of Protected areas (PA) .
- Insufficient staff and resources.
- Incomplete legal framework for protected areas.
- Lack of precise information on the number of fauna and flora species.
- Lack of adequate legislation to protect flora and fauna;
- Lack of Institutional Capacities for protected area
- Criteria for defining critical habitats or biotypes are missing.

Sub-goal: Conservation of Yemen's eco-systems through developing and maintaining a comprehensive and adequate network of protected areas, supported by effective co-coordinating management mechanism, adequately funded management plans and improved information system.

Priority Objectives

Short-Term (1-3 years) Medium-term (4-8 years) Long-Term (>8 years)

•Performance Indicators



Strategic Goals

Strategic Goal 2. Sustainable Use of Natural Resources.

Strategic Goal 3. Integration of Biodiversity in Sectoral Development Plans.

Strategic Goal 4. Implementation of Enabling Mechanisms



Specific objectives include:

1. Protected Areas
2. Endemic and Endangered Species (Goal 1) **Conservation of Natural Resource**
3. Ex-situ Conservation
4. Alien Invasive Species
5. Terrestrial Wildlife Resources
6. Coastal/Marine Life and Fisheries (goal2) **Sustainable Use of Natural Resources.**
7. Agro-biodiversity
8. **Infrastructures and Industry**
9. **Biotechnology and Biosafety**
10. **Tourism and Eco-tourism (goal 3)** Integration of Biodiversity in Sectoral Dev. Plans
11. **Urban, Rural Development and Land- Planning**
12. **Waste Management**
13. **Water Management**
14. **Climate Change and Energy**
15. **Public Awareness and Participation**
16. **Indigenous Knowledge and Traditions**
17. **Capacity Building** (Goal 4) **Implementation of Enabling Mechanisms**
18. **Equitable Sharing of Biodiversity Benefits**
19. **Policy, Legislation and Institutional Structure**
20. **Monitoring and Reporting**

The domains and gaps:

1- Policies laws and legislations.

- Shortcomings in revival of policies and legislations related to the protection and utilization of biodiversity in a sustainable manner.
- Weak capacities in implementation of plans and programs related to biodiversity.
- Limitations in implementation of the environmental impact assessment.

2- Conservation of biodiversity and intellectual property rights.

- Limitations in the revival of legislations which regulate the conservation of
- biodiversity and biosafety to limit the ad-hoc utilization of genetic resources and piracy.
- Lack of laws and regulations pertinent to intellectual property rights in biodiversity and biosafety.

3- Research, community awareness and technical coordination and cooperation.

- Limited research activities in biodiversity and biosafety.
- Low community awareness in conservation and utilization of biodiversity.
- Limited modern technologies applied in biotechnology and biosafety.
- Weak scientific cooperation and exchange of information at the local, regional and international levels in conservation of biotechnology.

4- In situ and ex situ conservation of biodiversity in Yemen.

- Lack of clear vision on in situ and ex situ conservation of the biodiversity components.
- Weak individual and institutional capacities in the management of protected areas.
- Weak national capacities in the ex situ conservation of biodiversity components.

Causes of gaps and problems listed under each domain were analyzed and potential solutions were identified in a prioritized manner. The potential agencies related to implementation of each potential solution were identified and the level of intervention was spelled out for each potential solution (individual, institutional and system) Similarly the urgency of each potential solution (intervention) was identified (short, medium and long term).

The Action plan

The NBSAP sets priority activities into seven programmes, setting timelines and identifying responsible parties. It covers a range of actions from large-scale infrastructure to strategic policy making and human resource development. Key Programmes contained in the action plan of the strategy are:

- Establishment and development of comprehensive National Integrated Protected Areas System (NIPAS) in Yemen
- Development & implementation of an Integrated Coastal Zone Management Plan (ICZMP)
- Developing and Implementing Specific Policy, Legislation and Regulations on Biodiversity
- Essential Measures for the Conservation of Agro-biodiversity in Yemen
- Reviewing Traditional & indigenous Knowledge in Natural Resources Management Systems
- National biodiversity education & awareness
- Programme Regulation and guidelines for Bio-safety

The primary criteria and process are:

- ✓ Geographic Impact,
- ✓ Consistency with Convention Objectives,
- ✓ Urgency,
- ✓ Sequence
- ✓ Country-driven,
- ✓ Attainable and Resourceable, and
- ✓ Multi-sectoral Implications.



The form of project (Action Plan)

- Outlining project title.
- Lead agency.
- Key partners.
- Goals.
- Objectives.
- Outputs.
- Main activities.
- Timeframe.
- Estimated cost.



•Policies and strategies which are partly or fully conducive to The National Biodiversity strategy and Action Plan considerations

- National Action Plan to Combat Desertification (NAPCD),
- National Wastewater Strategy,
- Water strategy,
- National Watershed Management Policy,
- Aden Agenda, and
- Water policy .



An underwater photograph of a coral reef. The scene is filled with various types of coral, including branching and table corals. Several fish are visible, including a prominent yellow tang in the center, a blue tang to the right, and several smaller black and yellow fish. The water is clear and blue, with light filtering through from above, creating a dappled effect on the reef.

key policies and strategies that have parallel aims to those of biodiversity objectives are:

- Second five years development plan (2000-2005).
- Third five years development plan (2006-2010)
- Vision 2025.
- Poverty Reduction Strategy Paper (2003- 2005),
- Yemen's National Report Submitted to the World Summit on Sustainable.
- National Population Action Plan.
- National Biosafety Framework.

Key Achievements Related to the National Biodiversity Strategy Biodiversity Strategy & Action

- *Over the past few years, Government efforts to protect and sustainable use the various components of Yemen's biodiversity have focused primarily on establishing Protected Areas. The results of these efforts have led to the identification of 16 areas throughout the country,*
- ***Progress made towards establishment of protected area:***

Protected Areas

In-Land Protected Areas:

- The Yemen gov. had declared the Hawf and Bura'a
- Also surveyed, mapped and studied the status of biodiversity, flora and fauna socio economic factors of Hawf and Bura'a and has successfully completed.

Coastal Zone Protected Areas:

- The Government, declared several wetlands protected areas of Aden and Kamaran Island Protected Area.
- similar studies surveys and mapping activities are taking place with aim to enable Government declaring the coastline of Balhaf- Burum and the coastline of Sharma-Jethmun as protected area..

Eco-tourism

- The government promotion of eco-tourism- of Sustainable environmental management .
- developed a Coastal Zone management plan for Aden coastal area and Hodidah, Haja and Mokala mobilizing resources for its implementation.
- Developed Eco-tourism Strategy.

Ex-situ Conservation

- Established Gene bank of field crops, but it has modest facility.

Biodiversity information, identification and monitoring

- Yemen's report on Protected Areas Management system, including Protected Areas Identification of Prioritization.
- National inventory of flora and fauna, particularly those species that are endemic, rare and endangered.
- Study on traditional knowledge and management of natural resources of some parts of Yemen.
- Published the red book

National Biosafety framework:

- Developed National Biosafety Framework and Biosafety bylaw.
- Established BCH

Education and Public Awareness

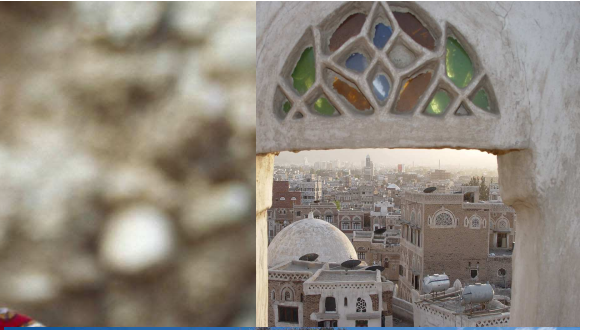
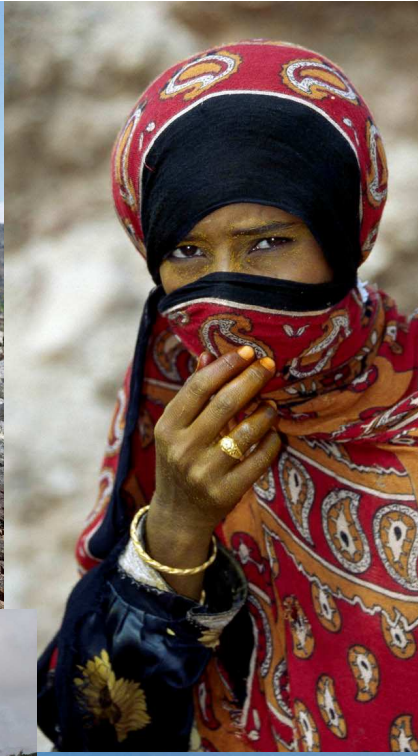
- Issues Environment Magazine on quarterly.
- Publishing the environmental page in the official daily newspaper once a week and some NGOs News paper.
- Provides the national TV and radio with environmental information and audio-visual materials to produce TV spots, and documentaries programmes
- EPA cooperates with many national partners in producing bulletins and posters and brochures to enhance public awareness in general workshops, environment clubs, school campaigns, and summer camps.
- organize and actively participate in exhibition,

Community Participation in Natural Resource Management

BIODIVERSITY Challenges:

- Lack of sufficient funding inadequate financial[resources.
- Weak technical and institutional capabilities; relatively new development.
- Weak coordination among relevant agencies.
- Absence of biological monitoring and assessment capacities.
- Weak biological awareness and information base.
- Inadequate participation of NGOs and local communities in environmental work.
- inadequate base of environmental friendly technologies.











































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