



Integration of Biodiversity and Health Linkages, Egypt



Regional capacity building workshop on Biodiversity and Health
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Dr. Ahmed Salama.
Ministry of Environment

Dr. Oaima Ezzeddin
Ministry of Health



OUTLINES

- 1. Sustainable development strategy (Egypt vision 2030.)**
- 2. National Biodiversity Strategy and Action Plan(NBSAP):**
- 3. Biological Diversity and Health**
- 4. Current situation(opportunities to linkages)**
- 5. Best practices: Sustainable use of natural resources**
- 6. Challenges and needs**

Egyptian Vision (2030)

“Environment is integrated in all economic sectors to **preserve natural resources** and support their efficient use and investment, while ensuring next generations’ rights. A clean, safe and **healthy environment** leading to diversified production resources and economic activities, supporting competitiveness, providing new jobs, eliminating poverty and achieving social justice.

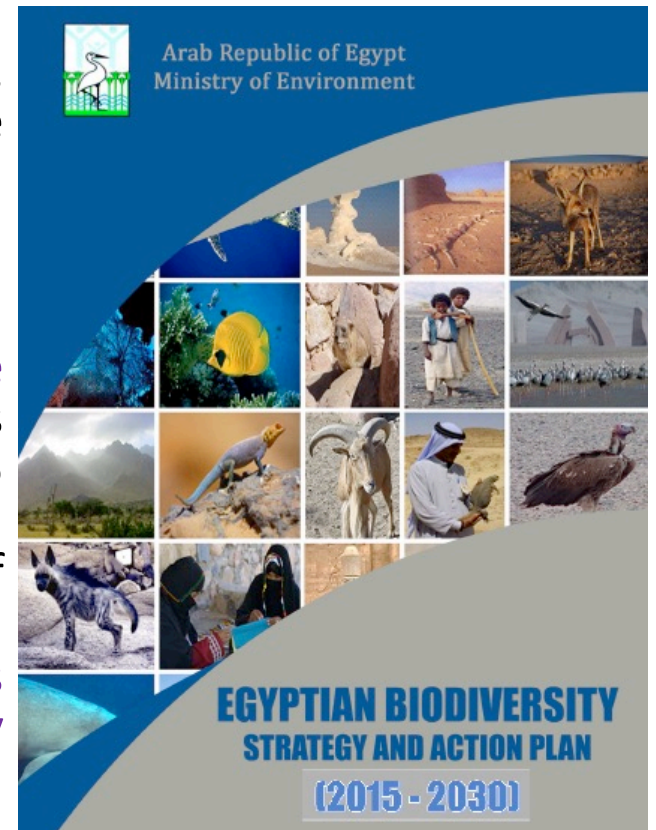
Egyptian NBSAP (2015 – 2030)

Vision:

“By 2030 biodiversity in Egypt is **valued**, **mainstreamed**, **maintained** for the good livelihoods and **conserved** for the sustainable use of future generations”

Mission:

“Egypt takes **effective and innovative actions** to reduce the **loss of biodiversity** to ensure that by 2030 ecosystems continue to **provide their services** to all Egyptian and also ensure pressures on biodiversity are reduced; **biological resources are sustainably used** and benefits arising out of utilization of genetic resources are shared in a fair and equitable manner; **biodiversity issues and values mainstreamed** and **appropriate policies** are effectively implemented in a participatory approach.”



Egyptian NBSAP (Strategic Goals)

1. **Strategic Goal 1:** Conserve and manage terrestrial and aquatic biodiversity to ensure sustainable use and equitable benefits to the people
2. **Strategic Goal 2:** Sustainable use of natural resources
3. **Strategic Goal 3:** Access to genetic resources and Benefit sharing (Nagoya protocol, indigenous knowledge and traditions)
4. **Strategic Goal 4:** Improve our understanding of biological diversity and ecosystem functioning in a changing environment
5. **Strategic Goal 5:** Prepare for climate change and combat desertification
6. **Strategic Goal 6:** Build partnerships and **integrate biodiversity** into all national development frameworks

Value of Egypt's Protected Areas

- Conserve biodiversity and ecosystem services
 - Global value = 2-several fold global GDP
 - For food, water, disease regulation, traditional medicine, adaptation to climate change
- Foundation of \$6 billion eco-tourism industry, growing at 15% per annual
- Poverty reduction in marginal areas in Egypt
- Wealth of information that could be used to develop human health and other sectors



Biological diversity and health

- Identification of plant species that have benefits to human health is done.
- Important Medicinal Plants is delineated.
- Reports related to Medicinal Plants, Traditional Knowledge, and Data Collection Program.



Biological diversity and health

- ✓ NCS/EEAA in consultation with many stakeholders developed a national strategic plan for conservation and sustainable use of Medicinal plants which was approved by the Government.
- ✓ The Medicinal Plants Association (MPA) is a non-governmental organization established in Saint Katherine that depends on the volunteers' efforts to play an effective role in their community to support the conservation and sustainable use of medicinal plants.



Highlights of the MPCCP CBNRM Programs

- Benefit of resource to community (how habitat shared in management)
- Challenge can be overcome using a participatory approach
- Promoting cooperation between community and support from other stakeholders
- Existing legal framework enables community based management

The main thrust for the MPCCP interventions is to address the issues of tenure of and access to the MAP resources and ensure that benefits are returned to those closest to the resource.

The Medicinal Plants Conservation Project (MPCCP) is a sustainable manner, where necessary, on-site conservation measures will be taken where the threat to a species is considered serious enough to warrant such measures.

The main thrust for the project interventions is to address the issue of tenure of and access to the MAP resources and ensure that benefits are returned to those closest to the resource and who are bearing the costs of conservation management.

This entails developing a system of community-based natural resource management (CBNRM) that will aim to devolve the authority and responsibility for MAP to a level that reflects the use of

CBNRM: Executive Summary

To set up a community based natural resource management (CBNRM) mechanism, a task force was formed by project combining local and international expertise.

The Medicinal Plants Association (MPA) established by the project acts as a focal point and a physical interface to the existing CBNRM. It is successfully being developed into a model community based organization (CBO).

CBNRM for similar resources is a very recent development, where the rules and norms largely depend on a number of defining factors (e.g. community structure, ecosystems, legal frameworks) and evolve into the controlled collection and management of MAP.

Establishing a CBNRM for Saint Katherine faced some challenges, for example:

- Lack of interest by the community due to lack of perception of tangible benefits
- Skepticism and reluctance to cooperate and provide information due to perception of MAP collection as performed by many community members as illegal

However, the participatory approach adopted is leading to significant achievements:

- More and more collectors identify themselves as such and show willingness to cooperate and enter into the controlled collection and management of MAP.
- The community decided on how to define the boundaries and uses for the MAP (see page 3).
- It is believed that despite the challenges, adopting a participatory approach and adaptive management to the process will lead to the successful establishment of CBNRM by which the Saint Katherine initiative will influence and share control over the MPA as well as obtain tangible benefits from such a management that will also be sustainable and self-managed of these globally significant resources.

Traditional knowledge

Recognizing the value of cultural diversity and traditional knowledge:

- Egypt protected and documented traditional knowledge and their usage particularly in protected areas; through registration of 38 species of medicinal plants in South Sinai, 45 species in North Sinai, 19 species in Elba's area, 13 species in western desert, 16 species in eastern desert



Climatic change and Health

Has Direct Healthy impacts:

- The increase in diseases of high temperature such as: sun shock, skin cancer and cataract.
- Indirect impacts include water shortage, agricultural productivity shortage leading to food shortage and appearance of Anemia and malnutrition diseases, in addition to change in water and air quality.
- Also, one of the indirect healthy impacts of climate change are diseases related to parasites and pests which high temperature help in their dissemination.

Regional and local Current situation for cross-sector human health and biodiversity collaboration

- The Steering Committee of the Egyptian System for the Quality and Safety of Medicinal and Aromatic Plants Products, which is constituted by the decision of the Minister of Industry and Foreign Trade No. 205 of 2013.
- The Regional Strategy on Health and Environment and Framework (2017–2030), developed by the WHO Regional Office and WHO Regional Centre for Environmental Health Action, Arab League and United Nations Environmental Programme was presented and approved by all Arab States.
- Participation of representative from Ministry of Health the Steering committees of many projects such as Biosafety,
- Participation of representative from Ministry of Environment in the Board of Directors of the Food Safety Authority.

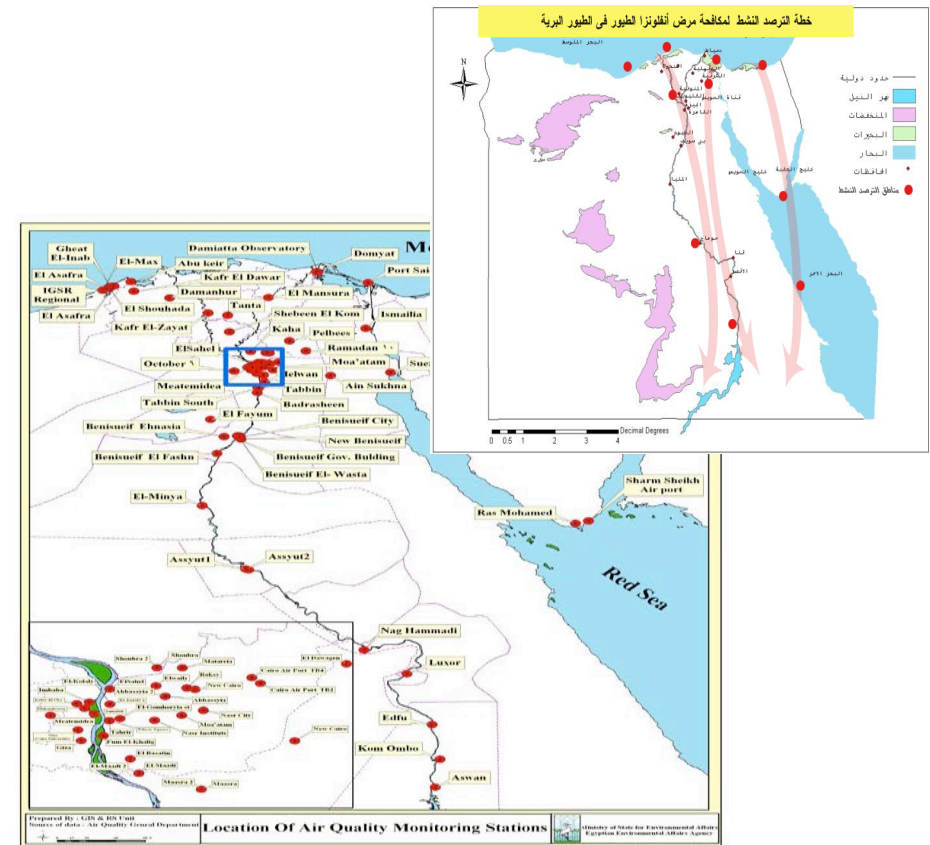
Best practices(NCS)

Support the Reference lab for GMOs at the Ministry of Health with equipment and trained staff.



Best practices (NCS &EQS)

- National plan for monitoring bird flow in collaboration with Ministry of Health and other government agencies.
- National network to monitor air pollutants (90 Air Stations in Egypt)

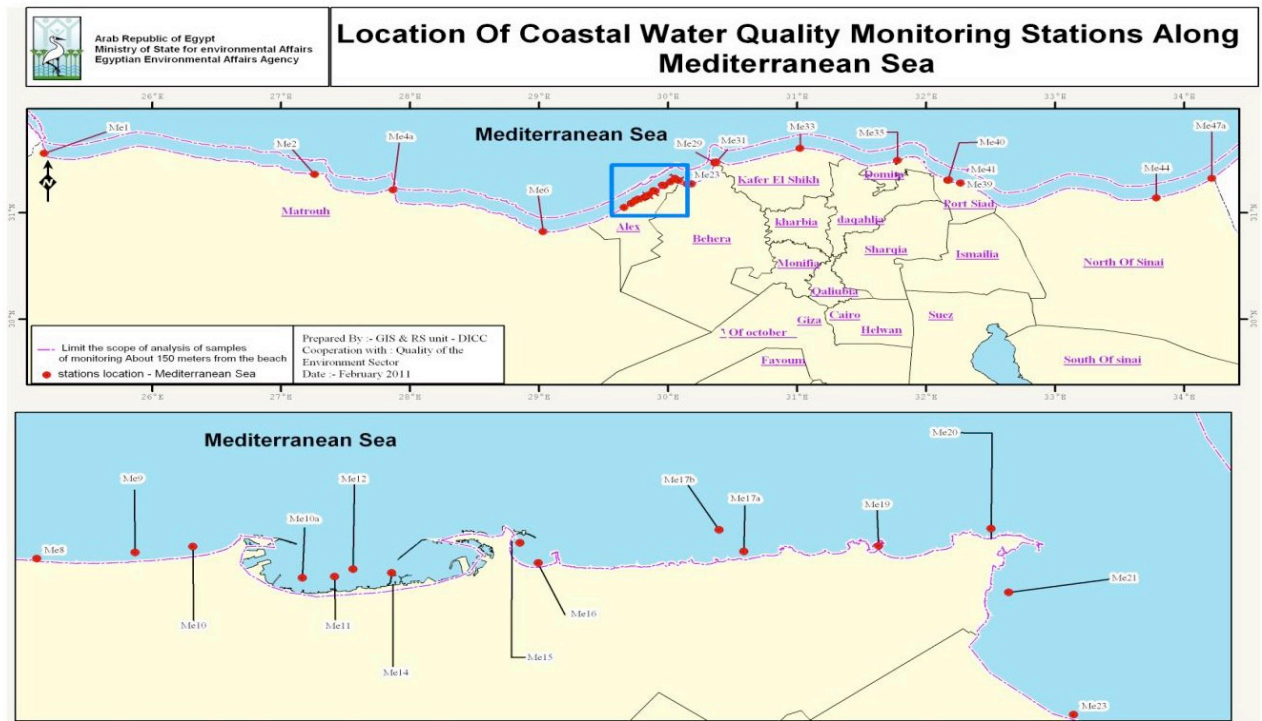


Best practices (Ozone)

- **Medical aerosols sector**
- In collaboration with Ministry of Health, EEAA is participating in converting production lines of medical aerosol that consume 163 tons of (CFC's) as propellant in Metered Dose Inhalers (MDI) used by respiratory asthmatic patients to non-Ozone depleting alternatives. In coordination with Pharmacy Department, Ministry of Health and pharmaceutical companies, EEAA implements the National Strategy to raise awareness, through training courses for doctors and pharmacists with non-ODS aerosols alternative.

Best practices

- Mediterranean Water Quality annually since 1998



Best practices

- **Joint work between Ministries of Environment and Health to protect the Nile and the waterways from pollution, in accordance with the Egyptian Constitution (article 45) and national legislation.**

Best practices

The Green and Herbal School Program - Educating the Future Community of Saint Katherine



IN THE FACE OF MASSIVE LOSS OF BIODIVERSITY AND ACCELERATING CLIMATE CHANGE, IT IS NOW CLEAR THAT THE REPAIR AND RESTORATION OF DAMAGED PLANT COMMUNITIES - THE BEDROCK OF HABITAT - IS NEEDED MORE THAN EVER BEFORE.

The MPCP Project and Rehabilitation Program

The Saint Katherine Protectorate (SKP) is one of Egypt's largest protected areas and includes the country's highest mountains. This arid, mountain ecosystem supports a surprising biodiversity and a high proportion of plant endemics.

The Medicinal Plants Conservation Project (MPCP) provides real attempts for the protection of the endangered wild medicinal species through eliminating the root causes of threats for these species. Based on the MPCP project objectives and the current assessment for the SKP, there is urgent need for in-situ conservation actions for these species. Recovery programs that target restoration and rehabilitation of the threatened species and its habitats are considered as one of the globally effective tools for in-situ conservation. A species recovery and restoration program has been initiated in SKP under the MPCP.

The aim of the recovery and restoration program carried out by the project's staff is to conserve the plant genetic resources and maximize its socio-economic values for the local Bedouin communities.

MAP Rehabilitation & Restoration

The objective of the rehabilitation program for the Globally Significant MAPs is ecological in nature - to allow for the restoration of a vegetative cover to re-establish the environmental protection functions of the sites.



The Green School Program

MPCP POSITION PAPER
- Educating the Future Generation of Saint Katherine

MPCP Environmental Awareness and Education Program

The key international conventions on environment place a high value on public awareness education and training. Building biodiversity awareness in schools is becoming a crucial tool for biodiversity conservation. Awareness and understanding of environmental issues provide the basis and rationale for commitment and meaningful action towards environmentally sound and sustainable development. The awareness and commitment of teachers is the key in building biodiversity awareness among primary and secondary school students. Good teachers know best how to get the message across to their students. The Environmental Awareness & Education Program (EAEP) was started by Medicinal Plants Conservation Project (MPCP) in January 2008 and works to address St. Katherine residents about the importance of their surrounding environment, especially medicinal plants and their habitats, and encourages their participation in conservation activities. Though EAEP works with all ages, a special focus is put on school students through the Green School Program and roles as they are the future of the St. Katherine community.

Students listening to a lecture.

A greenhouse field visit to learn more about propagation plants.

The Green School Program

The Green School Program was initiated and put into force by the MPCP and is part of the EAEP to enhance awareness and education concerning medicinal plants in the St. Katherine community. The program is currently working with eight schools that are involved in its activities. All schools and school districts in the area will practice restoration (medicinal plants) conservation and engage their students and staff in this activity. The program mission is to provide individual schools that are involved in its activities with tools and support their needs to enhance awareness and education concerning medicinal plants and other conservation actions and to involve the whole school community in

EAEP Components:	Inside this issue:
• The Green School Program	Environmental Awareness and Education 1
• Biodiversity Education Activities	The Green School Program 1
• Drawings from the Environment Program	Environmental Communication 2
• Environmental Awareness Activities and Campaigns	Cross Cutting Activities: The Power of 3
	The Saint Katherine Awareness Contest 3
	In Darwin's Footsteps 4
	Achievements 4



Challenges and Needs

- **Better understanding of linkages between biodiversity and human health (food, water, disease regulation, traditional medicine, adaptation to climate change)**
- **Implementation of CBD Strategic Plan and SDGs**
- **Capacity building**
- **Technical and financial resources**
- **Enhance regional cooperation for integration of biodiversity into human health**

Thank you for giving Egypt a chance to participate in this workshop and we hope our contribution will be of value, and at this juncture Dr.Omima and me, on behalf of the Egyptian Government, would like to take this rare opportunity to invite everyone to Egypt the November 2018 for the COP14 which is being co-hosted by Egypt.

THANK YOU

