



Ministry of State for Environmental Affairs
Egyptian Environmental Affairs Agency



International
Conference on Global
Implementation
Programme for the
SEEA

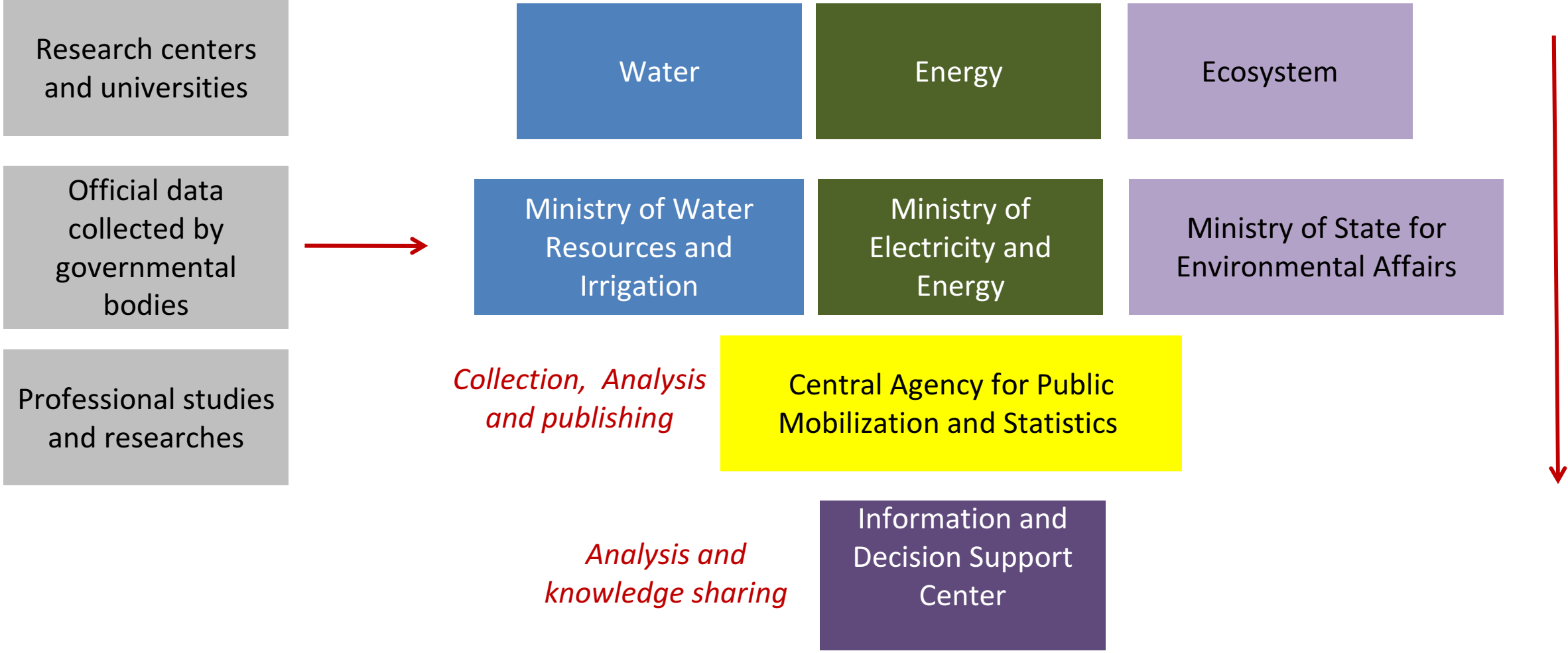
New York, 17-19 June
2013

United Nations
Statistics Division

Implementation of SEEA in Egypt: Challenges , Opportunities and Steps Forward

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Data flow chart in Egypt



Current SEEA in Egypt

Water	Experimental System established
Energy	Not yet, but efforts made
Ecosystem	Not yet

Experimental SEEA - Water

- System established at Central Agency for Public Mobilization and Statistics (CAMPAS)
- Technical support provided by the World Bank and UN Statistics Division
- Data is collected from Ministry of Water Resources and Irrigation and transferred to CAMPAS
- Systematic tables are filled regularly by CAMPAS
- Data are presented at Environmental Statistics Division annual report

SEEA Water Tables in Egypt

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	
1	SEEA-Water Standard Table I: Physical use table (ESCWA Adaptation)											SEEA-V . جدول 1. جدول الطلب المادي				
2	Physical units															
3			Total المجموع	Rest of the World العالم الخارجي	Households الساكن	Industries (by ISIC categories)					الصناعات (بموجب أيزيك)					
4						Total المجموع	99-58 53-45	56 55	37	36	35 hydro	35 non- hydro	43-41 33-10	9-5	3-1	
5	From the environment	1.i+1.ii)														
6		1.a Abstraction for own use														
7		1.b Abstraction for distribution														
8		1.i From water resources:														
9		1.i.1 Surface water														
10		1.i.2 Groundwater														
11		Renewable														
12		Non-renewable														
13		Saline														
14		1.i.3 Soil water														
15	1.ii From other sources															
16	1.ii.1 Collection of precipitation															
17	1.ii.2 Abstraction from the sea															
18	From other	2. Use of water received from other														
19																

SEEA Water
Tables in
Egypt

	A	B	C	D	E	F	G	H	I	J	K	L
1	SEEA-Water Standard Table III: Gross and net emissions											جدول الحسابات المائية الموحدة SEEA-Water. حسابات الانبعاث. جدول 3. الانبعاثات الإجمالية والصافية
2	Physical units											وحدات مادية
3												
4	Pollutant	Total المجموع	World العالم الخارجي	Households المساكن	Industries (by ISIC categories)				الصناعات (بموجب أيزيك)			
5	1. Gross emissions (= a + b)				Total المجموع	39, 38						
6	1.a. Direct emissions to water (= 1.a.1 + 1.a.2 = 1.a.i + 1.a.ii)						37	36	35			
7	1.a.1. Without treatment											
8	1.a.2. After on-site treatment											
9	1.a.i. To water resources											
10	1.a.ii. To the sea											
11	1.b. To Sewerage (ISIC 37)											
12	2. Reallocation of emission by ISIC 37											
13	3. Net emissions (= 1.a + 2)											
14												
15												

Energy Sector

About 90% of total energy needs come from **fossil fuel and natural gas** while renewable energy contribution is relatively minor

The sector's share of GDP was 15% in 2009/2011 and share of labor is 13%

Today the sector is still heavily **subsidized** thus creating a great burden on the Government. oil and petroleum subsidies have reached a staggering 95 billion Egyptian pounds. This is about **72%** of total Government financial subsidy allocations

CO2 emissions in 2011 from fuel and gas consumption reached 201.667 million metric tons



Renewables including hydraulic power contribute by about 4%.

Steps for establishing SEEA system for Energy

- Gain political approval
- Draw attention to importance of the SEEA and its implication economically, technically and socially
- Legal framework / Agreements / MoU
- Definition of roles & responsibilities
- Coordination should be made between Ministry of Electricity and Energy and Central Agency for Public Mobilization and Statistics (CAMPAS)
- Capacity development to be provided; human resources, training, software, governance, networking
- Mainstreaming SEEA



Ecosystems and protected Areas

- There is a political will to establish SEEA for ecosystem within Ministry of Environment (opportunity)
- Data and technical studies about ecosystems and PAs available (good literature)
- Qualified staff and experts (but not in environmental economics)
- Legal framework available



Steps for establishing SEEA system for Ecosystem

- Establish unit at Ministry of Environment for SEEA
- Coordination should be made between Ministry of Environment and Energy and Central Agency for Public Mobilization and Statistics (CAMPAS)
- Coordination with donor agencies and projects
- Capacity development to be provided; human resources, training, software, governance, networking
- Fund raising for the unit
- Mainstreaming SEEA



Steps forward for implementation of SEEA in Egypt

- Data available but needs to be more accurate and sufficient
- Data management inside governmental bodies should be developed (unified system for collection and storage should be in place)
- Transparency; usually employee/ organization don't give data easily
- Advanced technology should be employed
- Roles and responsibilities should be defined (at the same organization or among different bodies)

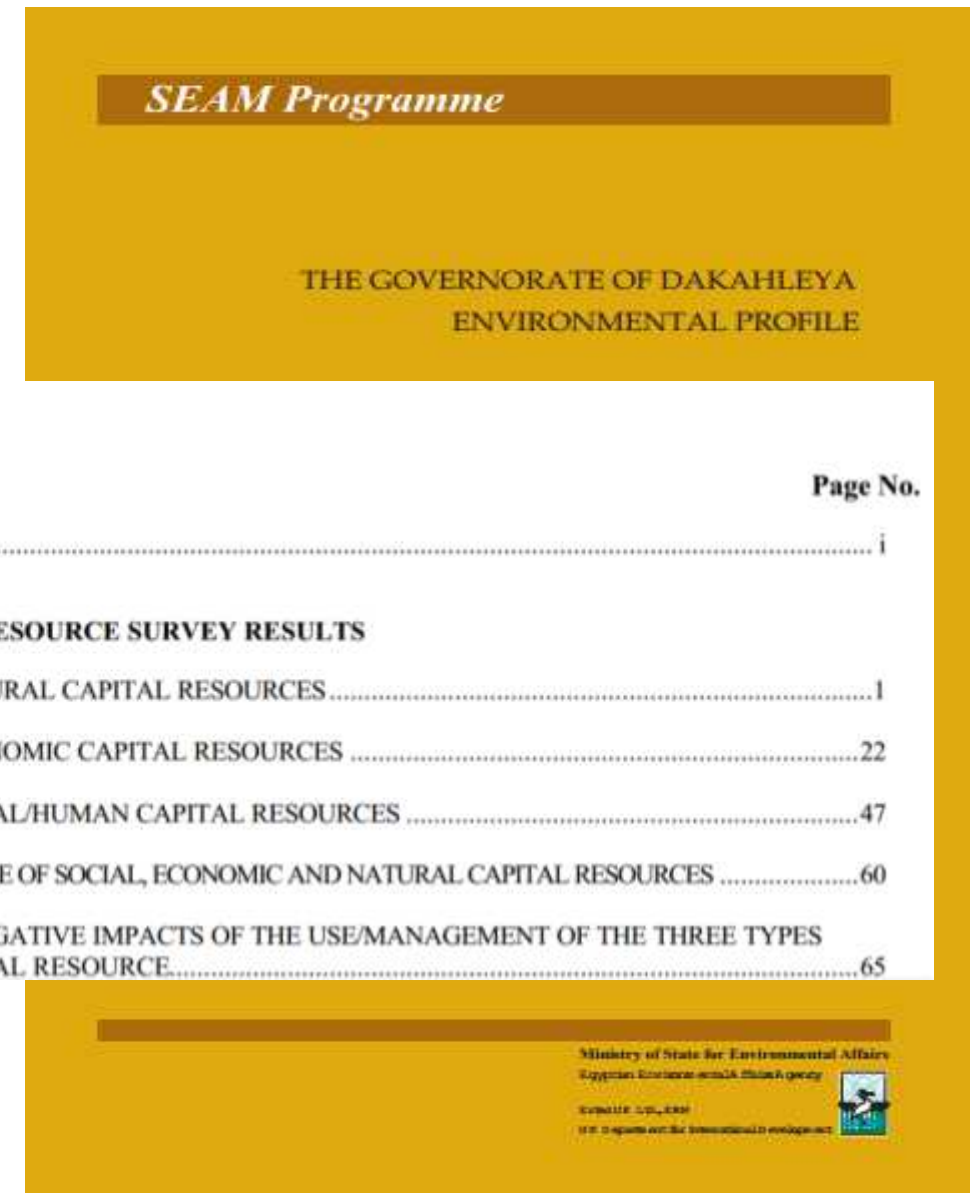
Steps forward for implementation of SEEA in Egypt

- Data publishing and knowledge sharing
- Capacity development
- Capacity development to be provided; human resources, training, software, governance, networking
- Experimental projects supported by professional agencies like UN Statistics division and the World Bank

Thank you

SEAM Programme

- Support for Environmental Assessment and Management (SEAM) is a major environmental programme implemented by the Egyptian Environmental Affairs Agency, Entec UK Ltd and ERM with support from the UK Department for International Development.
- SEAM I (1994 - 1999) developed Governorate Environmental Action Plans (GEAPs), built environmental capacity and demonstrated the tangible benefits of improved environmental management.
- SEAM II (2000 - 2004) developed **Governorate Environmental Profile**



The Environmental Information and Monitoring Program (EIMP)

- The Environmental Information and Monitoring Program (EIMP) aims at establishing national environmental monitoring program for ambient air and coastal waters.
- A reference laboratory is established to assist contracted national monitoring institutions in the development of quality assurance systems.
- An important output from the program is environmental quality data and database systems which will form an integral part of EEAA's Environmental Information Center.



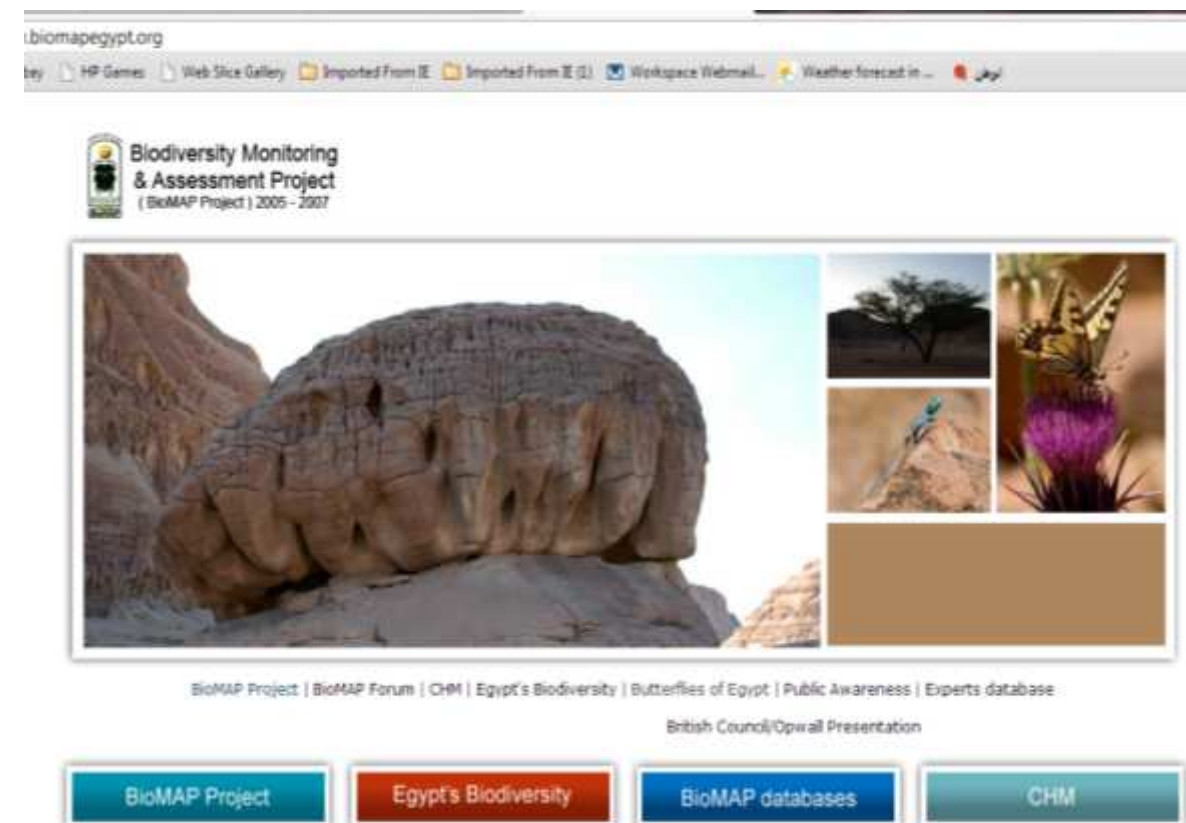


Biodiversity Monitoring & Assessment Project (BioMAP Project) 2005 - 2007

- Biodiversity Monitoring & Assessment Project
The BioMap project has as its primary objective the development and strengthening of biodiversity research, monitoring and assessment across Egypt.
- It has research and built an extensive database to map the distributions of species across Egypt, encourage and enhance the capacity of park rangers to monitor and collect data, raise public awareness of the need to conserve Egypt's biodiversity for future generations, and support work in local communities that makes sustainable use of local resources, preserving and celebrating the traditions and heritage of people in the context of their environment.

July 22, 2012

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Clearing House Mechanism - CHM Egypt



Natural Resources Clearing House Mechanism

The screenshot displays the website www.egyptchm.org in an Internet Explorer browser. The page features a blue header with logos for the Ministry of State For Environmental Affairs, UNDP, and the Nature Conservation Sector. A banner image shows a turtle and a bird with the text "CLEARING HOUSE MECHANISM" and "EGYPT".

The main content area is divided into two columns. The left column, titled "Home", contains a "CBD" section with links to "About the CBD", "The Convention text", "The Convention structure", "Meetings", "FAQ", and "Other Biodiversity conventions". Below this is an "Egypt's Biodiversity" section with links to "What is biodiversity?", "Importance of Biodiversity", "Egypt's Biodiversity", "Ecosystems and Habitats", "Species", "National Genetic Resources", "Protected Areas Network", and "Relevant Websites". The bottom section is "Egypt's implementation" with links to "National Biodiversity Action Plan" and "CBD National reports".

The right column, titled "Ecosystems and Habitats", lists several articles with small thumbnail images:

- أفاق الزراعة المتواصلة في القرية المصرية
Perspectives of sustainable agriculture in the egyptian village (No. 1/2)
- حماية الشواطئ المصرية
Periodical Bulletin
- العددان 3 / 4
No 3/4
- دليل الثدييات للمحميات الطبيعية بمصر
Guide to Mammals of Natural Protectorates in Egypt
- بعض المحميات الجيولوجية في مصر
Some Geological natural protectorates in egypt
- التقييم الجيويئي لسواحل البحر الاحمر
GEO-Environmental Evaluation of the Red Sea Coast
- Soon 5

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Climate Change Risk Management Programme (CCRMP)



Ministry of State for Environmental Affairs
Egyptian Environmental Affairs Agency

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- News Center
- Services
- Library
- Env Topics
- Green Corner
- World Env Day

Climate Change Risk Management Programme (CCRMP) Publications

- A. General Information**
 - Flyer (EN)
 - Flyer (AR)
 - Presentation (EN)
- B. SEC Component**
 - Presentation (EN)
- C. CDM Component**
 - Flyer (EN & AR)
 - Presentation (EN)
- D. Forecasting & IWRM Component**
 - Flyer (EN)

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Strengthening Protected Area Financing and Management Systems Project

- Strengthening Protected Area Financing and Management Systems Project aims at the establishment of a sustainable protected area financing system, with associated management structures, systems and capacities needed to ensure the effective use of generated revenues for priority biodiversity conservation needs as well as remove or significantly reduce a wide range of barriers to sustainable financing.
- The project will maintain a sustainable PA system operated by an autonomous NCS having the financial wherewithal and management capacities needed for effective management based on the following pillars:
- Legal, policy, regulatory and institutional frameworks that support sustainable PA financing.
- Tools and practices for revenue generation and mobilization.
- Business planning and other tools for cost-effective management.

July 22, 2012

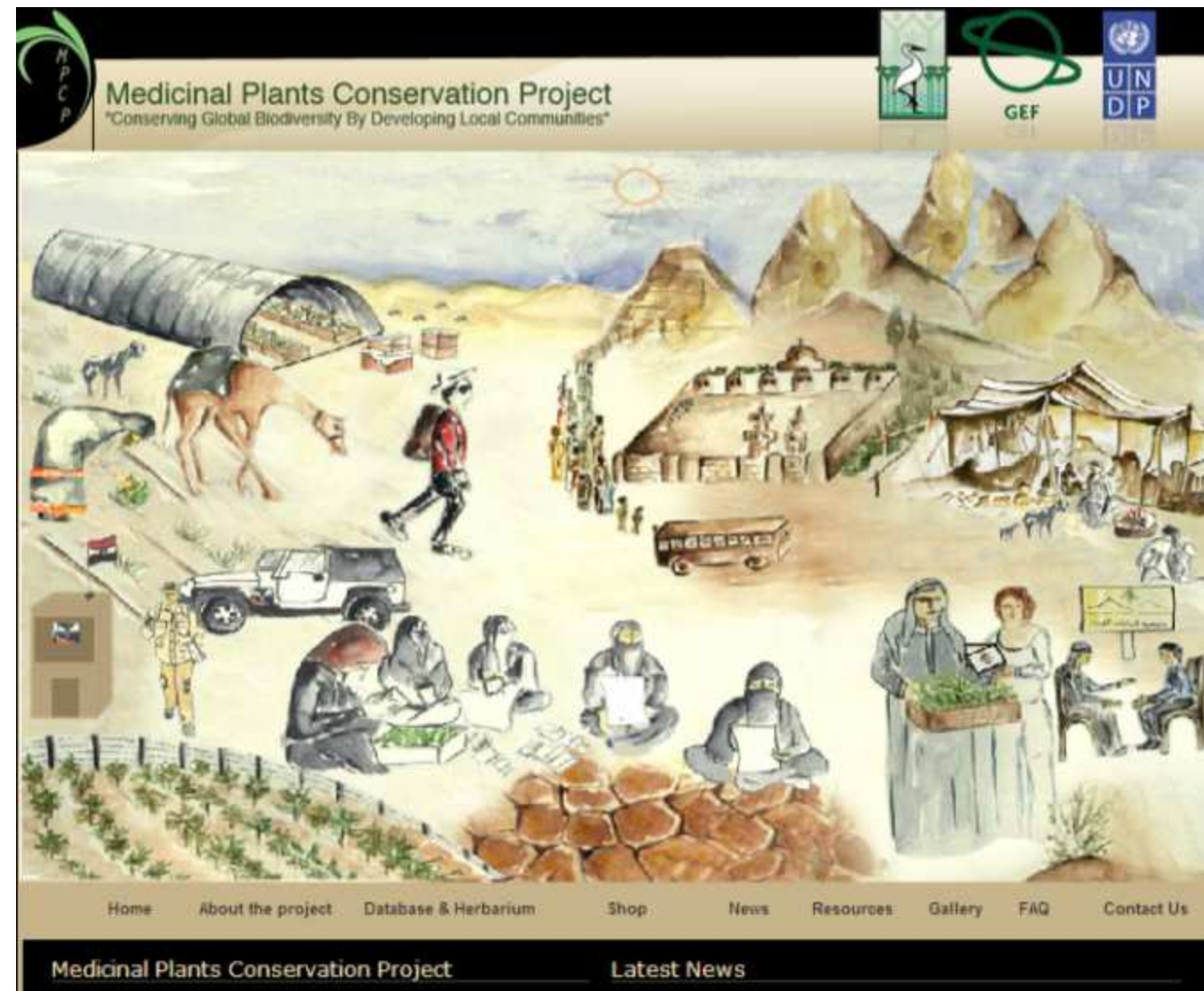


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Medicinal Plants Conservation Project

- The Medicinal Plants Conservation Project was launched in January 2003 and it is jointly undertaken by the United Nations Development Program (UNDP), the Global Environment Facility (GEF) and the Egyptian Environmental Affairs Agency (EEAA).
- It is a national project that aims at examining and eliminating the root causes to the loss in biodiversity and addressing the threats to the conservation and sustainable use of medicinal plants in Egypt through a number of interventions, while at the same time empowering the Bedouin community to use and manage its resources in a sustainable manner.



Medicinal plants online database

List Plants

Allow Paging

Plant Name	Family Name	SubSp_Varity	Author	CommonName
Adiantum capillus-veneris L.	Adiantaceae		L.	كزبرة البير
Ephedra alata Decne	Ephedraceae		Decne	طلدة
Ephedra ciliata Fischer & C. A. Mey	Ephedraceae		Fischer & C. A. Mey	None
Salix mucronata Thunb	Salicaceae		Thunb	صفصاف
Ficus palmata Forssk.	Moraceae		Forssk.	حفاط
Ficus carica L.	Moraceae		L.	None
Parietaria alsinifolia Delile	Urticaceae		Delile	None
Forskalaolea tenacissima L.	Urticaceae		L.	لصيف
Urtica urens urens	Urticaceae		urens	None
Atraphaxis spinosa L.	Polygonaceae	sinaica	L.	سراس
Polygonum equisetiforme Sm	Polygonaceae		Sm	None
Rumex vesicarius L.	Polygonaceae		L.	حفاط
Rumex dentatus L.	Polygonaceae		L.	None
Portulaca oleracea L.	Portulacaceae		L.	None
Arenaria deflexa Decne.	Caryophyllaceae		Decne.	None

56 Results Found

[Search Plants](#) | [Add New Plant](#)

Efforts in Ecosystem Valuation

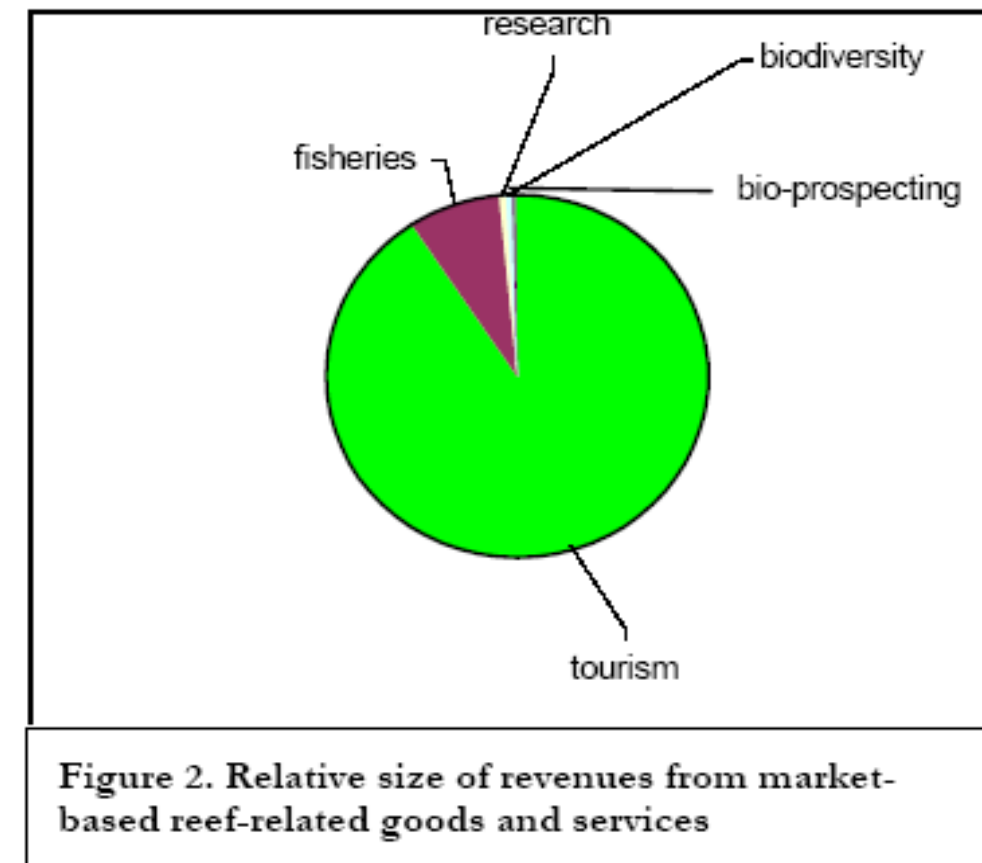
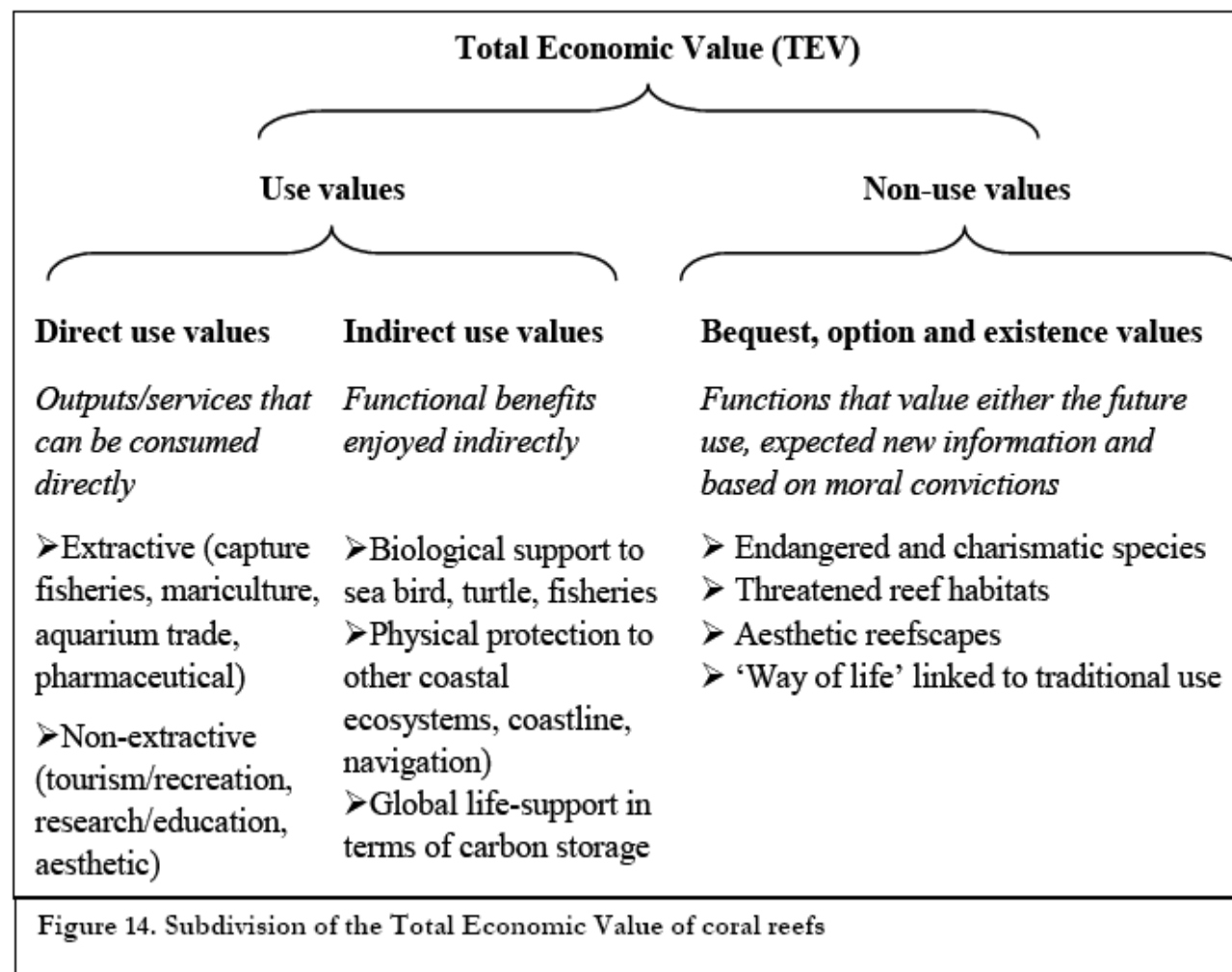
Socio-economic Assessment & Economic Valuation of Egypt's Mangroves

- **Ecosystem:** mangrove
- **Service:** multiple
- **Value of Ecosystem Service:**
- Total Economic Value (TEV) of the mangroves at Ras Mohammed =US\$ 182,000/year (US\$ 91,000/ha/yr),
- Nabq Protected Area=US\$ 1,290,000/year (US\$ 24,000/ha/yr).
- Most other mangroves =US\$ 13,000/ha/yr for fisheries and perhaps in the order of US\$ 13,000/ha/yr for non-use values.

Use category	Type of value	*Approximate current range of values US\$/ha/yr	Potential to increase values at some sites
Direct use – extractive/ partially extractive	Fuel	0 - Low	Low
	Browsing	0 - Medium	Low
	Medicines and tannins etc	0	Low
	Pharmaceutical & genetic	0	High
	Apiculture	0	Low
	Wildlife resources	**Medium	Low
	Fish/shellfish	0 - Medium	Medium
Direct use – non-extractive	Recreation and tourism	0 – 180,000	High
	Landscape value	***0 – 100,000	Medium
	Education and research	0 - High	Medium
Indirect uses - functions	Support to fisheries	0 - 13,000	Medium
	Support to habitats and species	**High	Medium
	Shoreline protection	0 – 1,000	Medium
	Sediment regulation & accretion	0 – 1,000	Medium
	Other functions (e.g. carbon storage)	Low – Medium	Low
Non-use value	Non-use values	****350 – 100,000	High

Notes: * For the current value estimate column, where no monetary values are estimated, "low" may be in the order of US\$10s/ha/yr, medium may be US\$ 100s/ha/yr and high may be US\$ 1,000s/ha/yr.
 ** Much of these values are included in recreation/tourism and non-use value estimates.
 *** Only appropriate for small areas of mangroves in highly developed locations.
 **** Non-use value may vary from site to site, but due the high uncertainty of this value, the overall value could range anywhere between US\$ 350 and US\$ 100,000/ha/yr, with a best estimate of US\$ 13,000/ha/yr.

Economic Valuation of the Egyptian Red Sea Coral Reef



Economic Valuation of the Egyptian Red Sea Coral Reef

- Reef-related tourism expenditures alone are estimated at US\$ 470 million per year

Table 6: Net present value for both scenarios for various discount rates (million US\$)

	Hurghada <i>million US\$</i>	Marsa Alam <i>million US\$</i>	Sharm El Sheikh <i>million US\$</i>	Egypt overall <i>million US\$</i>
Business as usual				
Discount rate 0%	440	1,150	1,610	5,740
Discount rate 3%	270	600	940	3,260
Discount rate 10%	140	240	420	1,440
Discount rate 15%	100	170	300	1,020
Towards sustainability				
Discount rate 0%	520	1,300	1,270	6,670
Discount rate 3%	290	650	990	3,460
Discount rate 10%	140	240	400	1,400
Discount rate 15%	100	170	280	980
Net benefit of management				
Discount rate 0%	60	150	190	930
Discount rate 3%	20	50	50	200
Discount rate 10%	0	0	- 20	- 40
Discount rate 15%	0	0	- 20	- 40

Ecosystem Services

Dolphin House

“Samadai” Case Study

- An experimental, precautionary management scheme is being initiated at 2004 at a small place called Samadai Reef “Dolphin House”, Red Sea, Egypt.
- The management goal is to ensure the indefinite future enjoyment of the Red Sea biodiversity for the benefit of local community in a sustainable fashion.
- The described successful effort is a pioneer experiment opening the way to the development of an innovative approach to eco-tourism, generating direct government revenues every year, and much greater revenues for the local tourism industry.
- The management of Samadai provides a strong case for the conservation of marine biodiversity in Egypt and elsewhere.



Ecosystem Services
Dolphin House “Samadai” Case Study
The total economic value

- Job creation and income generation: 200 employees supporting more than 1000 persons
- Annual revenue of EGP 2.5 millions (US\$ 500,000)
- Tourism support
- Local community support

Use Values			Non-Use Values	
Direct Use Value	Indirect Use Value	Option Value	Bequest Values	Existence Values
Recreation Tourism Research Education Conservation funds Social benefits Media	Ecosystem services Sediment control Coast protection Fishery support	Future uses (direct - indirect) Genetic Resources Medicinal	Use and non-use values for legacy	Biodiversity Community values Spiritual values Cultural heritage

Ecosystem Goods and Services Valuation

The Economic Value of Ras Mohammed National Park, Egypt

- Recreational value: US\$ 1.1 billion per year
- Production value
- Cultural value
- Regulation value



THANK YOU