



# **Economic Valuation of Wetlands**

## **A guide to policy Makers**

**Teeb Workshop ( the Economics of  
Ecosystem & Biodiversity for North  
Africa & Middle East  
Beirut-Lebanon :21-23/2/2012**

**Nermin Wafa**  
Head of Programs & Activities Division  
Environmental Sector  
LAS

# Background

**In June 2009:**

**'Cairo Statement'**

submit recommendations for the implementation of the Ramsar Convention in the Arab Region.

**In November 2009:**

CAMRE at their meeting in Marsa Alam, Egypt.

Cairo Statement formally approved

**In June 2010:**

Muscat action plan implement programs

One of these programs was execution of the study on economic valuation of wetlands in Arab region.

To consider sustainable use of Wetlands in tourism planning Schemes

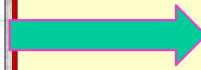
**In December 2010:**

**CAMRE Approved the Arab regional Statement for Action on the 2020 biodiversity targets , funding Strategies & innovative Financial Mechanisms**



**Inviting /UNEP/Teeb to undertake an Arab Teeb Initiative to evaluate the economic values of biodiversity & Ecosystem Services**

**In December 2011:  
CAMRE at their meeting in Egypt.**



**called on Ramsar secretariat to hold a  
regional workshop on the economic  
valuation of wetlands**

**submitted to Arab Ministers of Water  
& Arab Ministers of Tourism**



**To take into consideration the  
importance of wetlands in their  
planning program, wetlands as a  
Natural infrastructure**

# Agadir commitments Next 20 years

International Symposium “Water and Wetlands in the Mediterranean “  
Agadir, Morocco ( February 6-8, 2012)

Promote & manage more effectively the services from wetlands ecosystems for human well being

IMPROVING the knowledge on mediteranean wetland functions , services and values

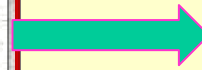
Valued the importance of the cultural & touristic aspects of wetlands and encouraged participation with world heritage organization

Valued the importance of executing a study on the economic valuation of wetlands in the Arab region

Promoting & developing & implementing wetlands policies and mainstreaming

Encouraged synergies among rio conventions, Medwet Initiative to contribute to Agadir commitments

**The study will be carried in 6 sites of wetlands importance in the Arab Region**



**Costs will be covered by host Countries & regional , international organizations**

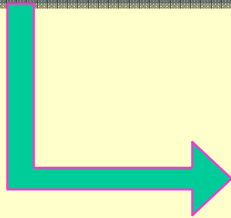
**Duration 14 month**



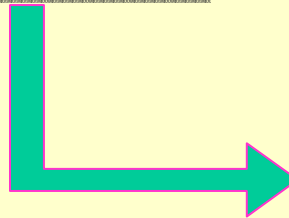
**Budget in total 100,000 U.S D**

# Why Wetlands

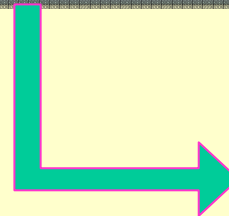
Rich in biodiversity



Attainment of  
millennium goals



Diversity &  
abundance of species



Diversity & abundance  
of species: water birds

# Direct values

```
graph TD; A[Direct values] --> B[Agricultural products]; A --> C[firewood]; A --> D[Pharmaceutical products]; B --> B1[Energy]; B --> B2[SHELTER]; C --> C1[Transport]; C --> C2[Fishing and aquaculture]; D --> D1[Water supply]; D --> D2[recreational facilities];
```

**Agricultural  
products**

**Energy**

**SHELTER**

**firewood**

**Transport**

**Fishing and aquaculture**

**Pharmaceutical  
products**

**Water supply**

**recreational facilities**



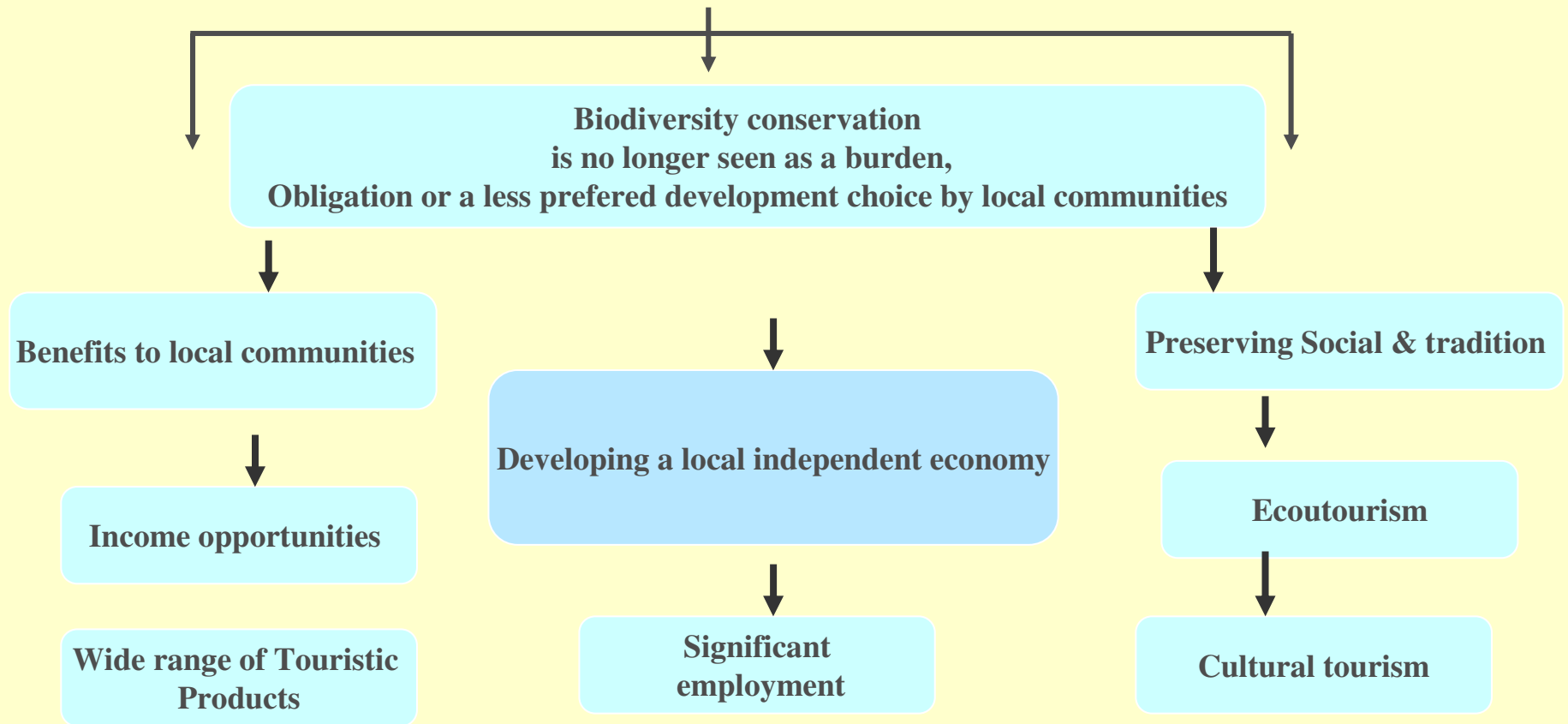
## Key findings

Theme & indicators	General trends	EU countries (except Bulgaria)	Countries influenced by EU and OECD	Countries with no mandatory supra-national guidelines
<b>STATUS &amp; TRENDS</b>				
DIVERSITY & ABUNDANCE OF SPECIES	** →	*** →	** ↘	* ↘
DIVERSITY & ABUNDANCE OF SPECIES - WATER BIRDS	** ↗	** ↗	** ↗	** ↗
WETLANDS BIRDS AND Climate Change	** ↗	** ↘	** ↘	** ↘
WETLANDS BIRDS AND LAND-USE Change	** ↘	** →	** ↘	** ↘
RIVER FLOW	** ↘	**	** ↘	* ↘
WATER QUALITY ( ONLY FOR NITRATES IN RIVER)	*	** ↗	**	*
WETLAND Surface area (Trend: 20th century)	* ↘	** ↘	** ↘	* ↘
<b>Impacts &amp; benefits</b>				
Role of wetlands in water supply	* ↘	* ↘	* ↘	* ↘
Role of wetlands in water purification	* ↘	* ↘	* ↘	* ↘
Role of wetlands in flood & drought	* ↘	* ↘	* ↘	* ↘
Educational & touristic role of wetlands	* ↗	* ↗	* ↗	* ↗
<b>Responses</b>				
Surface of Ramsar wetlands	** ↗	** ↗	** ↗	** ↗
Surface of nationally protected wetlands ( trends refers only to Albania , Cyprus, Serbia)	*	** ↗	** ↗	*
Strategic efforts in wetlands protection	*** →	** ↗	** ↗	** ↗
Wetlands & wetlands & Millennium dev goals( trends 2005- 2010)	** ↗	→	** ↗	** ↗

Table: Mediterranean Wetlands: Monitoring Results at The Mediterranean Scale And By Cluster Of Countries

Status: Favorable medium poor not enough information of indicator not yet ready  
Trends: Stable Degradation Improvement Variable: from degradation to stabilization trend  
Level of accuracy: \* weak / \*\* correct / \*\*\* High.

# In Direct values



# Ecosystem Services of Wetlands

Water purification



Flood & drought attenuation

Mitigation with climate change

Maintenance of livelihood  
of local communities

Land use Change

River Flow

## **Wetlands and MDG's: Goal 7” Ensuring Environmental Sustainability**

**Under GOAL 7 “ ensuring environmental sustainability “**

**Indicator 7.1 “ Proportion of land area covered by forests “**

**Indicator 7.8 “ Proportion of of Population using an improved drinking water  
source “**

**Indicator 7.9 “ Proportion of of Population using an improved sanitation facility**

**Indicator 7.10 “ Proportion of Urban Population living in slums “**

RATE OF ACHIEVMENT	MDG OBGECTIVE 7
	ALBANIA
	ALGERIA
	BOSNIA H.
	BULGARIA
	CROATIA
	EGYPT
	F Y R MACEDONIA
	JORDAN
	LEBANON
	LIBYA
	MONTENEGRO
	MORROCO
	PALESTININAN A
	SERBIA
	SYRIA
	TUNISIA
	TURKEY

Table2: Rate of achievement of water and wetland related MDG Environmental

**How to interpret indicator:** 5 countries in green have achieved or are likely to achieve by 2015 the 4 selected environmental targets. Seven countries in orange could potentially achieve the targets , if they enhanced their efforts . four countries in red are very probably not going to achieve the targets . Data for turkey insufficient for evaluation.

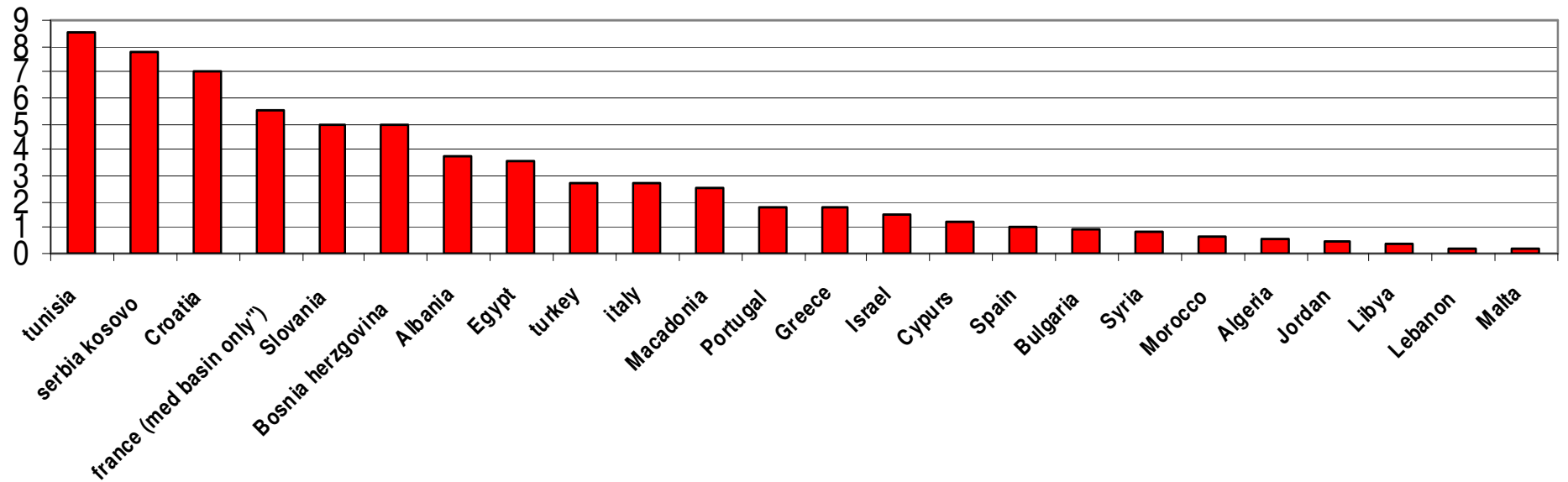
## Extent of wetlands: A downward trend

For the 20<sup>th</sup> century the loss of wetlands worldwide has been estimated at 50% of those existing 1900

Mediterranean wetlands hosts 1.5% of global wetlands

The total economic value of 63 million hectares of wetland around the world is estimated at \$3.4 billion per year.

## % Surface Covered by Wetlands



Proportion of Wetland Coverage in relation to total country surface area , for Mediteranean countries  
 ( Serbia ,Montengro& kosovo are presented together ,due to fact thatinformation avalaible from time when they were united )

# **Economic valuation of wetlands**

**A guide to sustainable tourism**



# Objectives of study

**Moving the economic value of wetlands towards centre of policy development.**

**Guiding local communities & Small – Medium Business to the Economic revenue of wetlands**

**Raising awareness of policy makers on the economic significance of tourism as one of the main services of wetlands**

**Raising awareness of Water Officials on the economic value of water in wetlands**

## **Tourism Businesses can promote and support Wetland biodiversity by:**

**Reducing pollution from tourism, particularly by ensuring that all liquid & Solid wastes are properly treated and disposed of in ways that do not result in damage to biodiversity & by minimizing use of pesticides , fertilisers and toxic chemicals**

**Obtaining all food stuffs, and other biological resources used in tourism activities from sustainably managed sources**

**supporting biodiversity conservation by gov. agencies and Ngos through practical actions, including financial contributions, ex: through sponsorship and voluntary donations.**

**Ensuring that no invasive alien species are introduced through tourism activities**

**- Ensuring that no threatened or endangered species are put at risk from tourism activities or enter the tourism supply chain ( especially as food or souvenirs)**

**- Using the Communications and marketing strengths of the tourism sector to raise awareness of tourists and destination authorities of the value of biodiversity and the steps they can take to protect it .**

# Expected Outputs

Enhancing attention of policy makers to the economic values of different types of wetlands tourism in different Arab countries

The project will be pilot study for the region

Attracting range of different stakeholders from local to national level, across government, NGOs, private sector, and academia to Wetland Touristic Sites

Encouraging non- member Arab States to join RAMSAR Convention on Wetlands

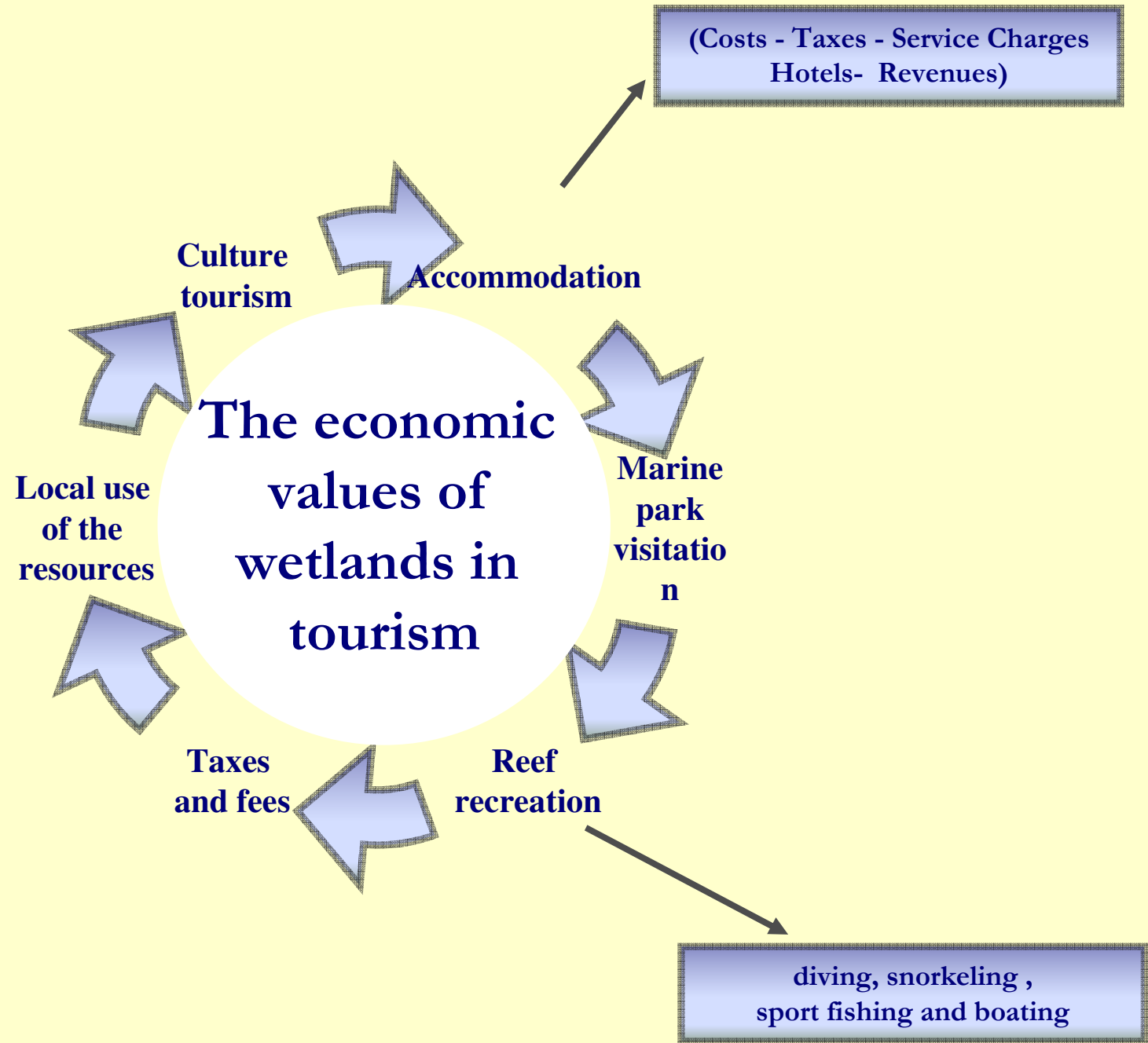


## **Economic Benefits for Locals & Government.**

**Well managed tourism in and around wetlands can bring significant benefits both economic and environmental,**

**Local communities and local gov. can and often do benefit in terms of income and employment.**

**Income Benefits for long term conservation Measures**  
the wetland itself can benefit directly when the income from tourism (entry fees , local products, etc,,) is used directly to conservative measure thus linking tourism with long term conservation



# Wetland Tourism

Well Managed  
Tourism  
Environmentally  
sensitive  
tourism

including Ecotourism  
or well controlled  
Mass tourism  
Ex: Dalyan in turkey

Natural & Semi-  
natural land  
conversion into  
Tourist infrastructure  
& services (Hula  
Nature Reserve)

One of the best  
development  
option  
around wetlands



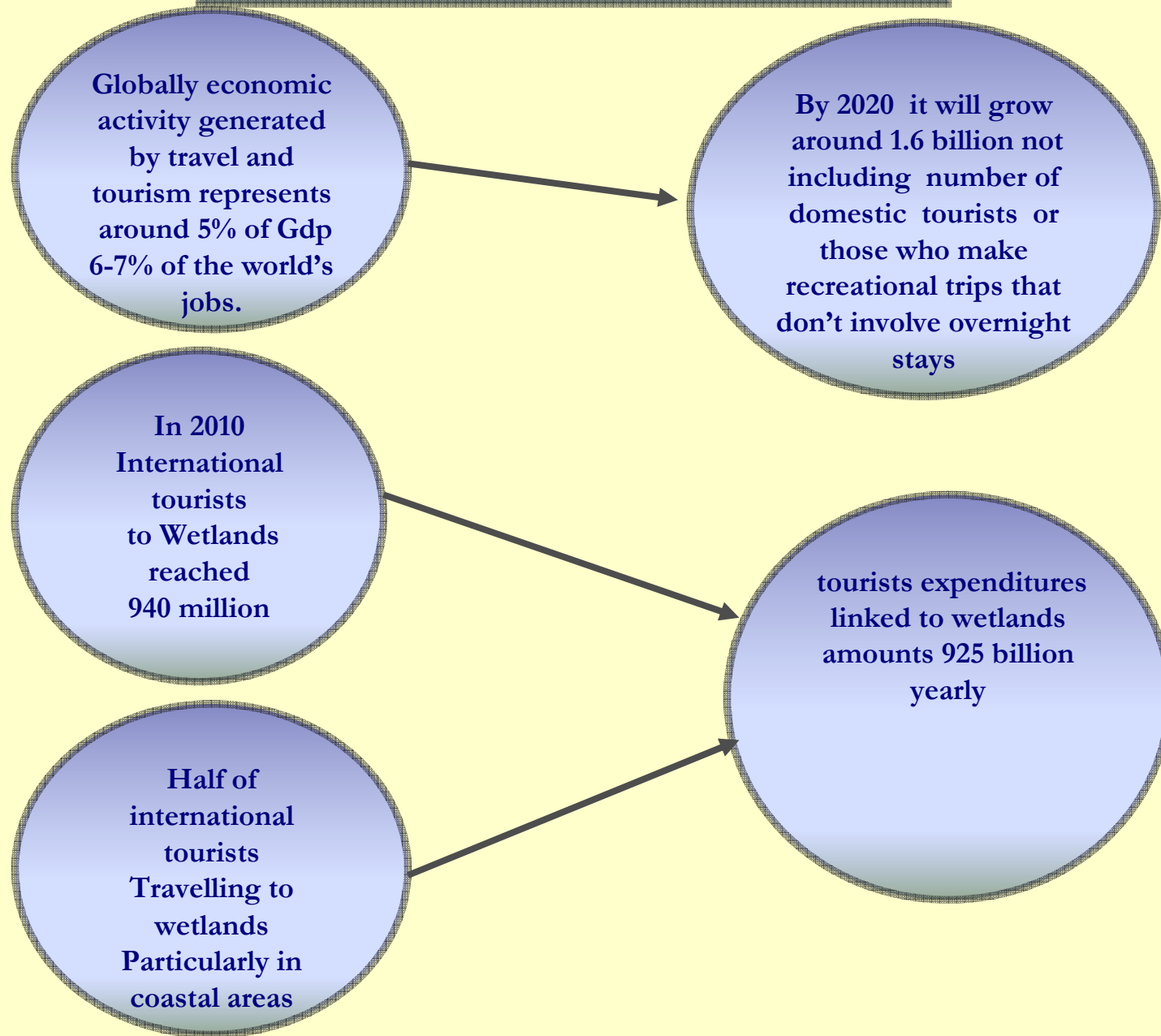
# Mass Tourism

```
graph TD; A[Mass Tourism] --> B[Disturbances affecting wildlife and fragile habitats & pollution]; A --> C[water withdrawel for human consumption];
```

- Disturbances affecting
- wildlife and fragile
- habitats & pollution

water withdrawel  
for human  
consumption

# The scale of Tourism





# Sustainable tourism an economic activity that leads to sustainable value chain

Well managed Protective Wetlands combining environmental protection , cultural enhancement, economic returns

Impacting less negatively land , water & biodiversity compared to agricultural, industrial & urbanization options

Podelta

Koycegiz-Dalyan in Turkey

Aiguamolls de l'emporda in Spain

Ghar El Melah in Tunisia

Camargue in france

People become best defenders of their environmental capital , where sustainable tourism in wetlands become beneficial , their service economy is perceived to be an appropriate alternative, comprising between conservation & development

Wetland Educational center  
Ex: Sidi Boughaba in Morroco

hotels

agencies

Tourist products

Benefitng local communiites

Car rental

guides

restaurants

# wetlands international sites: Major touristic attractions

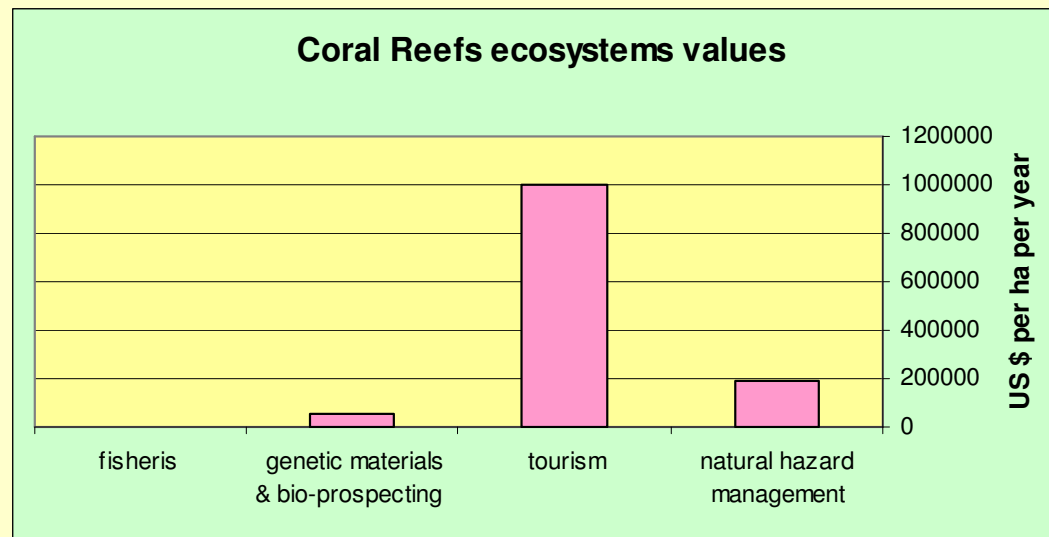
Port launay  
Ramsara  
site in seychelles  
Taking sunsets at  
the

kashmir India  
bird watching in the  
Tsomoriri  
Ramsar Site at an  
altitude of 4600 m. in

from Watching  
marine  
turtles and  
humpback whales  
and viewing the  
splendour  
of brain corals

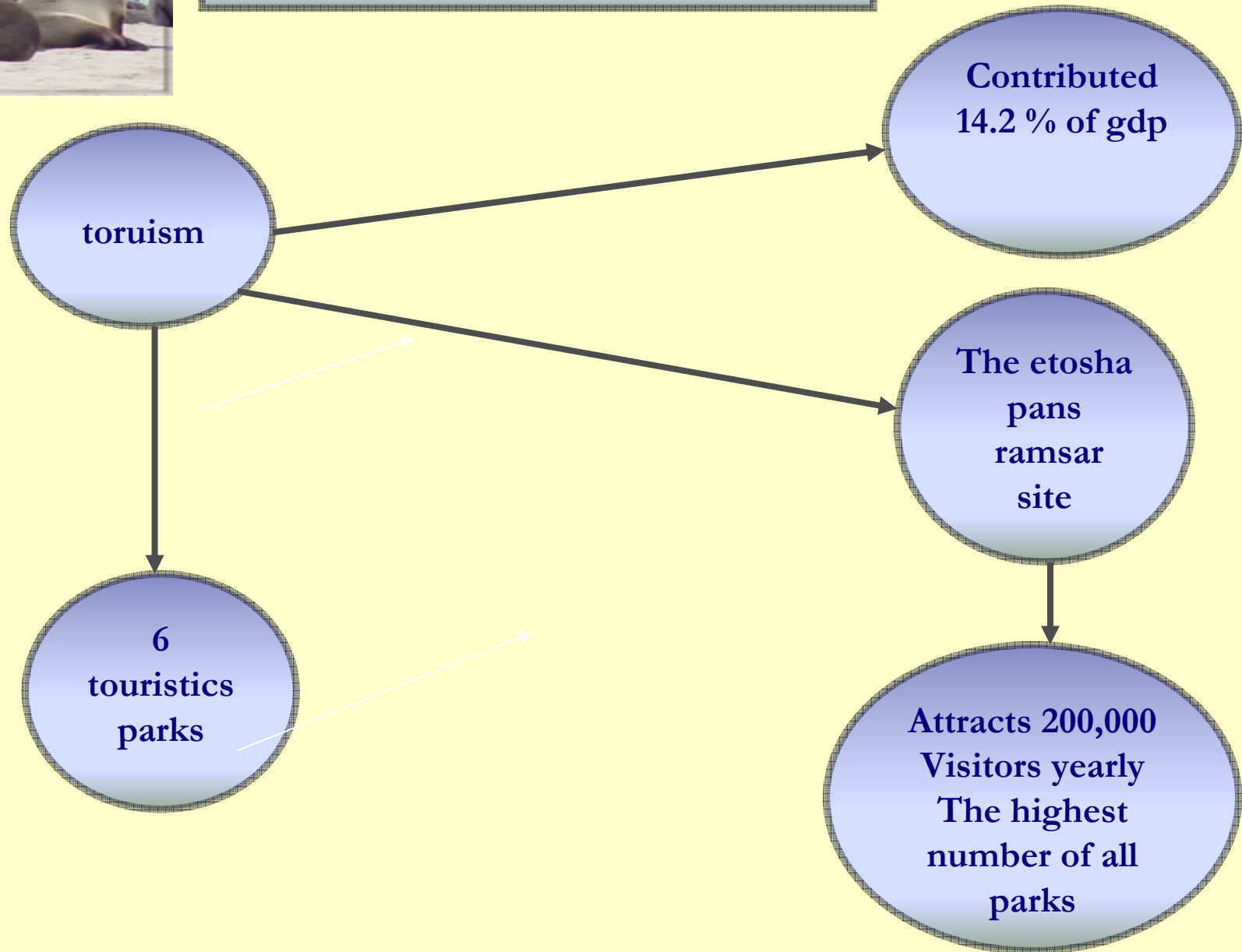
brazil's  
abrolhos park  
Watching marine turtles  
and humpback whaled  
and viewing the  
splendour of brain  
corals underwater

kakadu National  
Park in  
Australia home to  
finest  
aboriginal art .



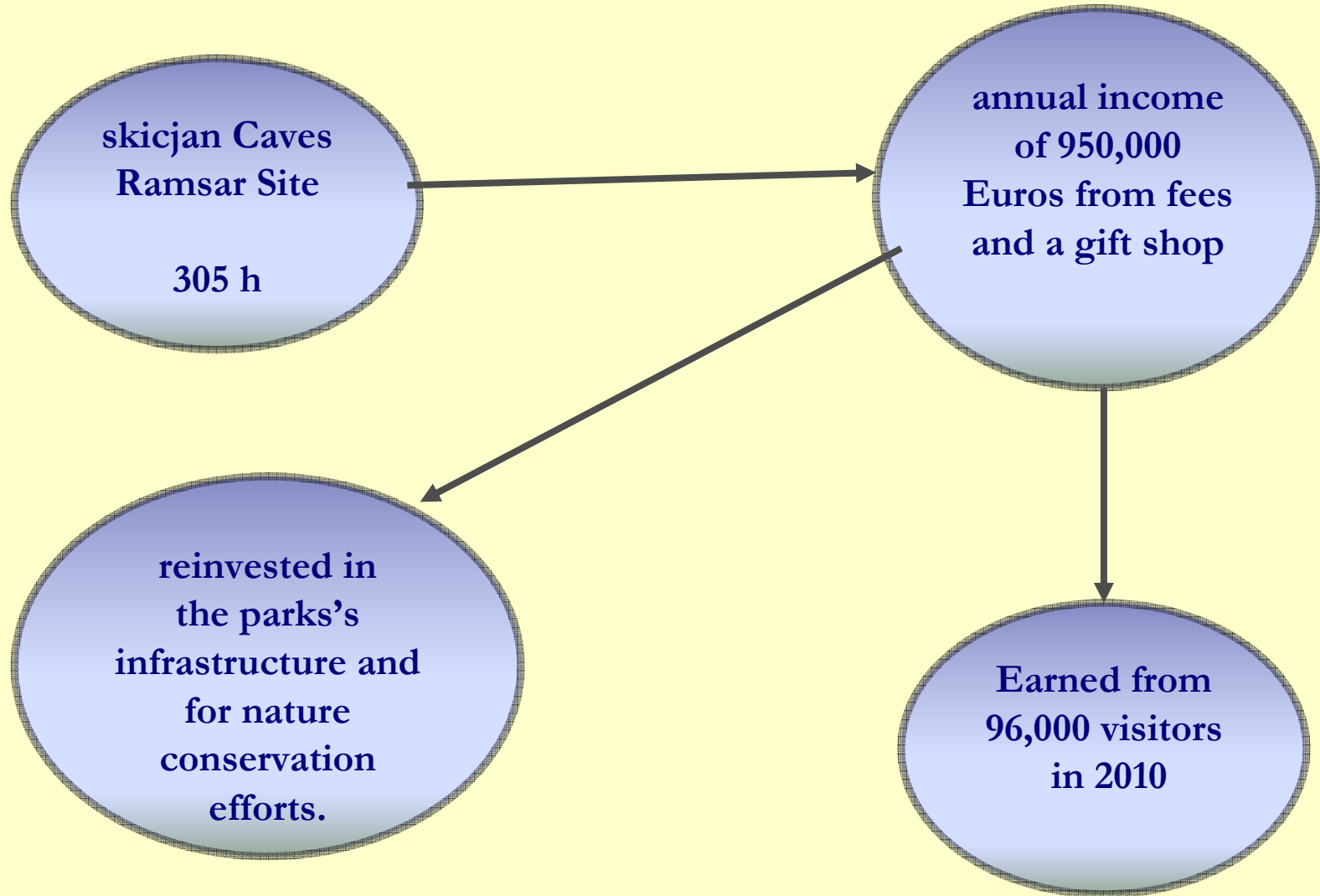


# Namibia





# Slovenia



# In Australia's



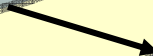
**Kakadu  
National  
Park**

**almost 2- million  
hectares Ramsar  
and  
a World Heritage  
Site**

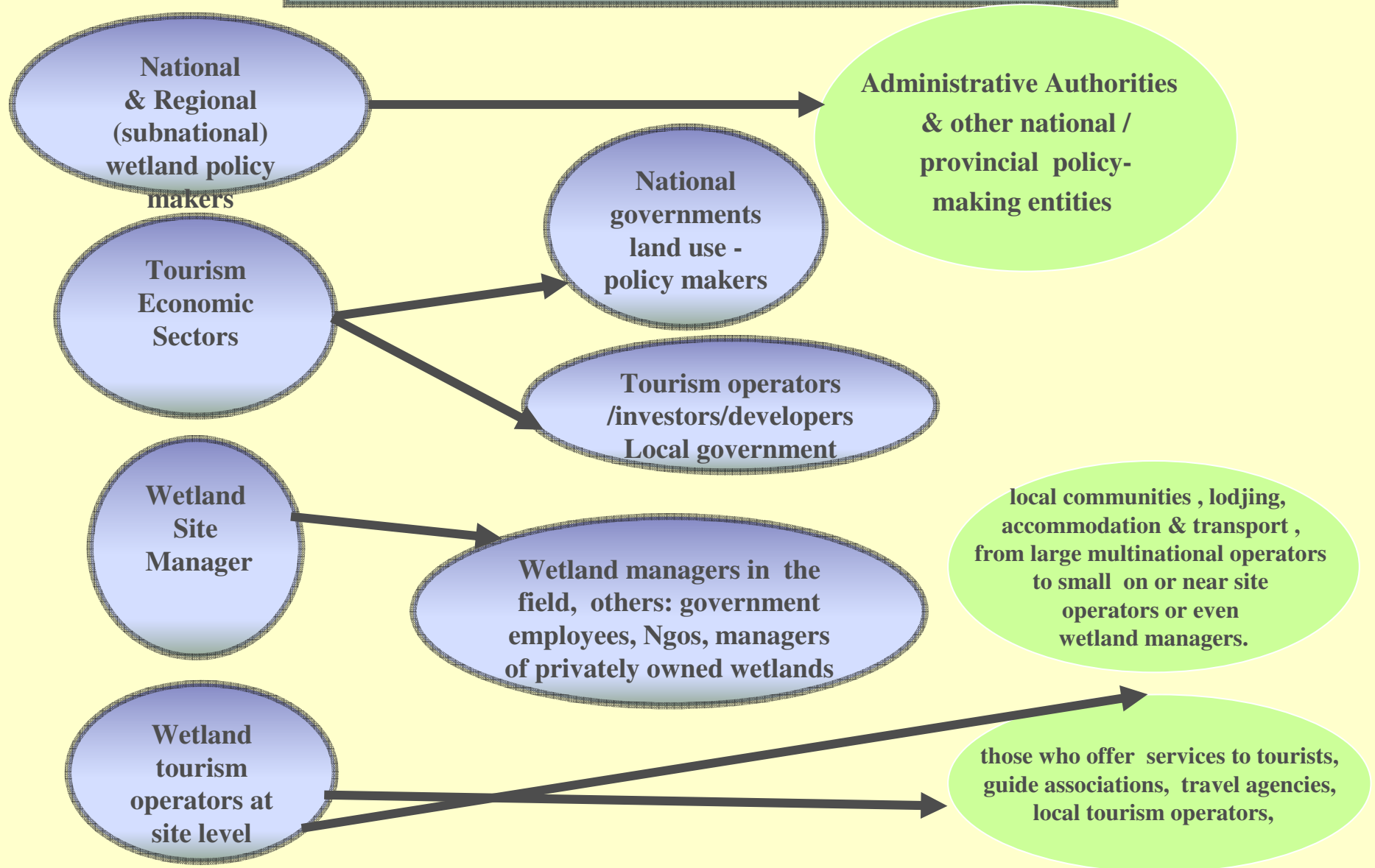
**Aboriginal lands  
Trust  
for disbursement  
to  
traditional  
owners**

**40% of the entrance  
fees  
frm around 200.000  
visitors  
each year is provided**

**remaining 60%  
is used to cover the  
operational costs of  
conserving and  
maintaining the park's  
natural and cultural value**



# Who can contribute to achieving sustainable Wetland tourism





# **World Wetlands Day 2012**

## **great opportunities to Wetland Tourism**

**offers chance to raise  
awareness about how  
people can be  
responsible tourists**

**both in**

**the personal behaviour  
as tourists and in the  
choices  
they make for hotel or  
tour operator.**



# Thank you



**RIO+20**  
United Nations  
Conference on  
Sustainable  
Development