Kingdom of Morocco Ministry of Land Use, Water and Environment







\*\*\*

- **INTRODUCTION**
- **GENERAL INFORMATIONS ABOUT MOROCCO** 
  - ENVIRONMENT IN MOROCCO
     WHO IS ACTING IN ENVIRONMENT FIELD IN MOROCCO AND FOR DOING WHAT ?
     STATE OF THE ENVIRONMENT (SoE)
- **STRATEGY AND ACTION PLAN**
- **CONCLUSION AND PERSPECTIVES**







#### A CONTEXT IN EVOLUTION : two maine challenges to be faced

Social and economic development in several sectors (Industry, Agriculture, Infrastructure,.. etc...)

produce

Excess of use in natural resources and environment degradation New conditions of international trade based on Production based on the best quality /low cost With a less pressure on the environment

Need to develop a global and integrated approach taking into account Sustainable development



Commitment of Morocco in Multilateral Environmental Agreement (MEA) Multilateral Trade System (WTO), or ateral trade agreement (EU, USA, Turkey, Arabic countries..)

## GENERAL INFORMATIONS







```
Densités de la population par cercie
Area : 710.850 sq Km
Coastal area : Atlantic (2 934 Km) ; Mediterranean (512 Km)
Population : 29.9 million habitants (2004)
Grouth of population : 1,4 % (1994-2004)
Urbain population between Kénitra and Casablanca : 37,3% (2002)
Ratio of urbanisation : 55,1% (2004)
GDP per habitant in dollar : 1677
397.781,9 Millions de DH (39 M)
Growth of GDP : 2,8% (2000-2004)
```



ife expectancy : 70,8 years (2004)

### **GENERAL INFORMATION (continued)**

Access to services

**Ratio of fresh Water supply in urban area : 100%** 

**Ratio of fresh water supply in rural area : 61%** 

Ratio of urban sanitation connection network : 79% (2004)
 Soil use

9 *M* Ha of cultivated land

**65** *M Ha of crop land* (*terres de parcours*)

**9** *M Ha of forest* (12.6% *of total area*)

**Biodiversity** 

- **37** types of continental ecosystem
- 24 534 fauna species
- 7000 flora species
- **2280** *threatned species*

Cost of environmental degradation :

 2 million \$ / year (8.2 % of GDP 1995 – source : Department of Environment)

**1,627** *million* \$ / year (4,6 % of GDP 2003 – source : World Bank )



### SOME ORIENTATIONS FOR SUSTAINABLE DEVELOPMENT IN NATIONAL LEVEL



# Actions toward sustainability

- Beter know the Human resources acting in the field of environment (sustainable development) and try to define their products
- Define a state of environment
- Develop a set of indicators of sustainable development
- Define targeted objectives to achieve in mid-term and long-term
- Strengthen the institutional and legal frame







WHO IS ACTING IN ENVIRONMENT FIELD IN MOROCCO ? First inventory in humain envivronmental resources

Capitalisation of existing database

Elaboration of national inventory (2003)
 Sample concerned :

669 experts277 organisms

# Typology of environmental domains

- 7 Domains selected
- **D1 : Sciences**
- **D2**: Ingeneering
- **D3 : Impacts studies and major risks**
- **D4 : Environnemental Management**
- **D5 : Economy of Environment**
- **D6 : Information Education and Communication**
- **D7 : Law related to Environment**

# Inventory of Experts

# Répartition of experts by région



# Répartition of experts by town



# *Répartition of experts by age*



# *Répartition of experts by diploma*



# Répartition of experts by environmental domain



# Inventory of organisms

# **Répartition of organisms by région**





### *Répartition of organisms by environmental domain*



# *Répartition of organisms by catégory*





Secrétariat d'Etat chargé de l'Environnement



# **Realizations** in sustainable development



**Observatoire** National de l'Environnement du Maroc (ONEM)

2, rue Oum Er'Rbia, Agdal - Rabat Tél: 212 37 68 15 00 Fax: 212 37 77 27 56 E-mail: onem@minenv.gov.ma Site-Web : http://www.minenv.gov.ma/onem Sample concerned

- Number of realizations : about 1000
- Period covered : 1998-2007
- Status : realized, current and foreseen actions
- Spatial Coverage :

international National, regional, provincial, local, basin

# Typology

Capitalisation of existing typologies First inventory related to studies in environmental sector (1994) Inventory of environmental expertise (2003) Sustainanble Development Indicators (2003) International references (RIO Conferences, OECD, Eurostat, Ifen, INRA France...) - Résult :

4 Poles, 25 Domains and 139 themes

# Information sources

	Group	Nbr	%
	International Organisations	48	10
	Ministries, Directions and Offices	212	43
	Local Communities	38	7
Univer	rsities, Instituts and Research Centres	87	17
	Associations, NGOs	82	16
	Economic Operators	23	5
	Total	490	100

#### \_



₽.

cherche des informations

Approximately 60 % of the realizations Are of types: Projects on the field (33 %) And Studies (25 )

Répartition des Réalisations Nationales par Catégorie de Réalisation (en effectif)



Politique, Stratégie, Plan, Programme	Législation et Réglementation
Projet de Réalisation sur Terrain	Travaux de Recherche
Etudes, Enquêtes, Travaux d'inventaires et de Statistiques	Bases de Données, Systèmes d'Informations
Activités d'Information, de Formation et de Communication	

Catégorie de réalisation	Effectif	%	Budget	%	*
Politique, Stratégie, Plan, Programme	131	14,44	8 477 890 148,00	19,29	
égislation et Réglementation	41	4,52	254 390 580,00	0,58	
Projet de Réalisation sur Terrain	302	33,30	29 201 294 857,00	66,45	
Travaux de Recherche	87	9,59	451 282 452,00	1,03	
Etudes, Enquêtes, Travaux d'inventaires et de Statistiqu	ies 229	25,25	3 000 804 509,25	6,83	
Bases de Données, Systèmes d'Informations	51	5,62	1 555 598 860,00	3,54	
Activités d'Information, de Formation et de Communicatio	on 66	7,28	1 001 744 519,25	2,28	
					_
	907		43 943 005 925,50		•
Voir détails par <u>é</u> tendue	<u> </u>				

#### **Répartition of Réalisations by Pole**



Good distribution with regard to 4 Poles Water and sanitation : 43 % of the realizations Risks, Air and Noise : the least covered Sea : only 7 % of the realizations



#### equêtes et états de sortie

E

Répartition des réalisations Nationales

- 🔘 Par Catégorie de Réalisation
- 🔘 Par Statut de Réalisation
- 🔘 Par Classification de Réalisation
- 📀 Par Catégorie maître d'ouvrage

	Répartition des Réa par Catégorie de (en e 3,83%9,17%	lisations Nationale Maître d'ouvrage ffectif)	s			
	7,32%	75,4	14%			
	■ Etablissements Publics et Semi-Publics ■ Facultés, Ecoles, Instituts, Centres de Recherche ■ Secteur Privé	■ Associations, ( □ Autorités Loca	ONGs les			
ellé (	Catégorie Maître d'ouvrage	Effectif	%	Budget	%	
abliss	sements Publics et Semi-Publics	433	75,44	32 728 027 773,00	98,93	
socia	ations, ONGs	42	7,32	86 223 014,25	0,26	
culté	s, Ecoles, Instituts, Centres de Recherche	76	13,24	132 428 000,00	0,40	
itorit	és Locales	22	3,83	135 112 046,00	0,41	

The public sector covers the 2/3 in terms of environmental actions (studies and realizations

#### Public sector (75% of the realizations)



#### **Repartition of the realizations by spatial scale**





ΒV

#### **Répartition of the realizations by Status**

#### Actions foreseen in the short term are limited (12 %) It denotes of an incapacity of forecast at this level




State of environment - approach adopted -







Society response : Décisions/actions

Source : OECD

# STATE OF THE ENVIRONMENT based on indicators of sustainable development



# Moroccan reporting based on ISD

- October, 2001 : First moroccan report of state on Environment based on collected indicators (67 Ind) with a frame of « State, Pressure and Response » by the national Environment Observatory
- Junuary, 2003 : Adoption of 65 ISD by the national commitee. The national test was based on Unitated Nation (Blue Book : 130 ISD) and Mediterraneen ISD (134 MCSD commission ISD) : out put national report and database
- 2005 : Second national report on 65 ISD by the committee in stage of elaboration (national report and database) taking into accounte the Millenium Objectives adopted in national level for 2015 perspective
- 2006 : Second State Report on Environment based on actualised set of ISD in the actuel promoted frame DPSIR

A set of 65 Moroccan Indicators of Sustainable Development (ISD) adopted by a national committee (ministries, NGO and economic operators : The actors of sustainable development...)

47 mediterraneen indicators, 16 moroccan indicators and 2 new indicators (agriculture, Environment)

## Moroccan Indicators of Sustainable Development (65 indicators)

### Society and population (16 ind)

- Demography and population
- Standart of living, employment, social inequality, pauvrety
- Culture, éducation, awarness
- Health and sanitation
- Consumption and production mode

# *Economic Activities and sustainibility* (18 ind)

- General economy
- Agriculture
- fishing, aquaculture.
- Mines, industry
- Services and trade
- Energy
- Transport
- Tourism



### Areas and teretories (12 idd)

- Habitat and urbain system
- Rural and arid regions, moutains
- Forest
- Coastal area
- Ocean

### Environnement (18 idd)

- fresh water and sanitation
- Soils, végétation and désertification
- Biodiversity and ecosystems
- Solid waste, domestic, industriel and hazardous
- Air
- Naturel and technologic risk
- Sustainable development, actors and policies

National Report of State on Environment (SoE)

### Stat of the Environmental Report based on sustainable environmental Indicators (67) (version October, 2001)

Themes	Pressure (know)	State (evaluate)	<b>Response</b> (act)
Humain activities	<ul> <li>Population- démographie,</li> <li>Croissance économique,</li> <li>Production Industrielle,</li> <li>Production agricole,</li> <li>Utilisation de l'énergie,</li> <li>Trafic routier,</li> <li>Tourisme, - Pêche</li> </ul>	-	-
Atmosphere	- Emissions (effet de serre, couche d'ozone)	- Qualité de l'air urbain (SOx, Nox, CO)	<ul> <li>Programme de surveillance de l'air,</li> <li>Réglementation de la qualité de l'air,</li> <li>Utilisation de l'essence sans plomb,</li> <li>Utilisation d'énergies renouvelables</li> </ul>
Biodiversity and Naturel Milieu	<ul> <li>Développement urbain,</li> <li>Sylviculture,</li> <li>Pâturage,</li> <li>Exploitation minière,</li> <li>Introduction d'espèces étrangères</li> </ul>	<ul> <li>Dégradation des sites,</li> <li>Fragmentation des sites,</li> <li>Nombre de distribution des espèces,</li> <li>Nombre d'espèce en voie de disparition, faune et flore (Continentale et marine),</li> <li>Nombre d'espèces menacées</li> </ul>	<ul> <li>Espaces protégés,</li> <li>Espèces protégées;</li> </ul>



## Stat of the Environmental Report based on sustainable environmental Indicators (67) (version October, 2001)

Theme	Pressure (know)	State (evaluate)	Response (act)
Forest	- Production de bois, - Incendies de forêt	<ul> <li>Préparation des forêts,</li> <li>Densité des forêts,</li> <li>Taux de déboisement</li> </ul>	<ul> <li>Taux de reboisement,</li> <li>Pourcentage des forêts protégées par rapport à la superficie totale,</li> <li>Aménagement contre la propagation des incendies</li> </ul>
Water	<ul> <li>Intensité d'utilisation des ressources en eau par secteur,</li> <li>Part des déversements des eaux usées dans les rivières</li> </ul>	<ul> <li>Condition de la qualité de l'eau,</li> <li>Taux de salinité des eaux,</li> <li>Concentration des nitrates dans les nappes souterraines,</li> <li>Eutrophisation,</li> <li>Taux de germes pathogènes</li> </ul>	<ul> <li>Pourcentage de la population raccordée à une station d'épuration,</li> <li>Redevance pour le traitement des eaux usées,</li> <li>Réutilisation des eaux usées</li> </ul>
Soil	<ul> <li>Agriculture,</li> <li>Pâturage,</li> <li>Exploitation des mines,</li> <li>Développement urbain,</li> <li>Consommation des fertilisants et de pesticides</li> </ul>	<ul> <li>Changement d'utilisation des sols,</li> <li>Changements des conditions des sols,</li> <li>Erosion hydrique,</li> <li>Erosion éolienne,</li> <li>Désertification,</li> <li>Salinisation,</li> <li>Envasement des barrages</li> </ul>	<ul> <li>Restrictions d'utilisation des sols,</li> <li>Réhabilitation des sols,</li> <li>technique des gestion agricole</li> </ul>
Garbade	<ul> <li>Production de déchets :</li> <li>Municipaux,</li> <li>industriels,</li> <li>dangereux</li> </ul>		<ul> <li>Taux de collecte des déchets,</li> <li>Mise en décharge,</li> <li>Pourcentage des déchets traités,</li> <li>Taux de recyclage et réutilisation</li> </ul>



## Current version on State of the environmental Report (SoR) (2006)

### environnemental reporting

A process of production and communication information to the public and decision maker on interactrion between the naturel ecosystem and society

Necessity to associate the state of environmental analyse in the evaluation of the maine policies and driving forces which influence the identified environmental tendencies

## Approach DPSIR

A logical methode which allows to structure the information in order to identifie the causes of environmental problems there effects on the state of environment and the society responses

It is a particulary practical tools for political decision-makers. It offers a basis of analyse related to factors which have an impact on the environment

#### **D** : Driving forces

- **P** : Pressure
- S : State
- I : Impact (Impacts on population, economy and ecosystem)
- **R** : Response (Responses of the society)

## **Approach DPSIR**

Driving forces (D) Anthropological activities and process Which cause pressures : production (Agriculture, industry, transport), Consumption, recreation, ...

Pressures (P) Factors of direct stress on the environment From the anthropological systems : discharge of Polluting substances (in the air, the water, the waste), Radioactive emissions,



#### Response (R)

Actions of the anthropological system to resolve the environmental problems : prevention of the pollution, the prevention and the reduction Causing economic activities damages to the environment, Durable use of the resources

Rehabilitate Influence

**led**u

Pr

State (s)

Conditions and tendencies of the Environment nature : quality of the air, the water and the ground.

Compensate attenuate

#### Stimulate

Cause

#### Impacts (I)

Effects on the anthropological system owed In the change of the state of the environment: Negative consequences on the health, economic losses

in the activities floods, ...



# **PHYSICAL MILIEU:**





### **Répartition of water stations by level of quality**



### **Surface water**

**Ground water** 

 Quality of waters of the restraints of dams : maid with Average with the exception of the restraints Lalla Aïcha, Mellah and Mansour Eddahbi



STATE

Source : DGH, 1999

### **Classification of surface wtare by quality (1998-99)**





STATE

Source, DGH, 2000

#### Classification of ground water by quality (1998-99)



9

**STATI** 

ONEM

Source, DGH, 2000

- **Intensity of use of water resources by sector**
- On the 21 billion mobilizable waters, 13,870 billions of m3 were taken in 1999-2000. They divide up as follows:
  - 11,170 billions m3 intended for the irrigation (80 %),
  - **2,280 billions** m3 intended for the drinking and industrial water (**20** %).
- Stream of pollution
  - Domestic pollution
    - **370 Mm3** (**48** % are poured in the river system or spread in the ground, the rest is evacuated towards the sea)
    - 131 443 tons of Oxidizible Materials, 25 981 tons of nitrogen and 3 847 tons of phosphor.
  - Industrial pollution:
    - 964 Mm3 (2 % is 19,3 Mm3, are poured in the river system or spread on the ground, the rest is evacuated towards the sea).
    - 26 640 tons of Oxidizible Materials(Subjects), 2 770 tons of nitrogen, 60 tons of phosphor, 70 tons of chromium.
  - Agricultural pollution:
    - 8500 tons of nitrogen in 1994 and 15 200 tons in 2015 of generated pollution
    - 15 tons of pesticides of generated pollution.
  - **Other pollutions**: waste and accidental pollution (difficult to quantify)
- Silting of dams
  - Lost volume : **50 Mm3 / year** (quantity of necessary water to irrigate 6 000 the ha / year)



PRESSURE

# Evolution of the mobilized and mobilizable volumes m3 / hab / year





Source : DGH, 1996

PRESSURE

**Legislation** : law on the water 10-95

### Rate of connecting to a network of sanitation :

 70 % for the totality of urban areas (76 % for big cities ; 67% for the average cities , 40 % for the small centres);

# Percentage of the population linked with a water-treatment plant (population 1994):

 Less than 8 % of all the urban population of the country (about is the state of the water-treatment plant, 23 functional water-treatment plants on 63 existing stations)

## Programs and Projects:

◆ PAGER, PREM, PAGI, SDNAL, SWIM, etc. ...



RESPONSE

# PHYSICAL MILIEU : AIR

## Air

### **Quallity of urbain air**

- **Quality of the air of the city of Rabat (1997)** 
  - The concentrations of SO2 exceed the standards in two stations. The highest annual average was registered in the bus station (144µg / m3).
  - The concentrations of Particles in Suspension exceed the standards in most of the stations. The highest annual averages were registered by the stations of the Bus station, Bab Rouah and Bab El-had.
  - The concentrations of the other moderate pollutants, CO and Pb, are lower than the limit values fixed by the project of Moroccan standards.

Quality of the air of the city of Casablanca City (LPEE and DMN, on 1998)

- Main pollutants are the dioxide of sulfur, the ozone and Particles in Suspension;
- The most polluted site is that of the industrial park of Aïn Sebaâ,
- Other sites (Mohammedia, Mâarif and Marshal) know very frequent overtakings
- The concentrations of the dioxide of sulfur and particles in suspension are raised during the cold season while those some ozone are him during the warm season.



STATE



## atmospherics emissions

# Rejets gazeux en 1996 (en Milliers de tonnes)





# Air

#### Legislation

- Law concerning the fight against the atmospheric pollution, the project of decree in the course of adoption
- Decree concerning exhaust gases (SGG, on 1998)
- Sector-based regulations(payments): transport, Cement works and Energy;

#### **Ratification and application of the international Agreements:**

- The Agreement of Vienna for the protection of the ozone layer (1995) and the Protocol of Montreal concerning substances which impoverish the ozone layer (on 1992 and 1995)
- The Agreement Centres United Nations on Climate change (1995)
- Organization of the 7éme conference of the parts(parties) in the CCNUCC in Marrakesh (in October 29th on November 9th, 2001).
- Programs of surveillance of the quality of the air(sight) in the big built-up areas (Rabat, Marrakesh, Oujda, Mohammedia);
- Improvement of the traffic
- **Use of appropriate(clean) fuels:** 
  - Lead-free petrol: between 1995 and 1998 annual increase of 55 %
  - GPL: cases of demonstration (Buses and taxis)



RESPONSE



## **Use of grounds**

 On a total surface of 710 850 km<sup>2</sup>, Morocco arranges 9 million hectares of lands of culture, to which it is necessary to add some 65 million hectares of lands of route and approximately 9 million hectares of forests.

The irrigated surfaces, in the year 2000

1 004 500 ha is 11 % of the S.A.U.
Irrigation gravitaire (87 %)
Spraying (13 %). Distributed there: big Hydraulics: 672
200 ha and Small and average Hydraulics: 332 300 ha.



STATE

**Distribution of the lands of cultures by type of culture** 





Source : MADREF, 1998

- Natural pressures (Erosion): the specific average degradation varies between 212 and more than 2000 t / km ²/an ²/an. These rates are excessive especially for the ponds of the North and the Northwest where they exceed 2 000 t / km ²/an ²/an.
- Human pressures:
  - Evolution of the Useful Agricultural Surface (SAU): It is crossed by 0,732 ha / inhabitant in 1960 in 0,350 ha / inhabitant in 1990 and there would be only of 0,224 ha / inhabitant in the year 2020.
  - Urbanization: needs considered between 3000 and 5000 the ha / year for regulated environment and 3000 the ha / year for clandestine environment.
  - **Mining activity**: the surface of the grounds of potentially exploitable phosphates is estimated at 10 650 Km2.
  - **Degradation of areas**): weak Degradation: 6 %, average degradation: 81 %, strong degradation: 12.5 %.
  - Forest: 31 000 ha lost annually (clearing, on paturage, illicit fires and cutting
  - **Salinisation:** 500 000 ha of touched surfaces
  - Desertification: 92 % of the threatened territory



## **Evolution of utile agriculture surface** (Surface Agricole Utile)





Presure

Source : MADREF, 1999

#### Legislation

- Laws on the (old) conservation of soil ·
- Law on the urbanization (12-90)
- Law of the Perimeters of agricultural Development (34-94)
- Application of the United Nations Agreement on the Desertification (ratified in December, 1996)
  - National committee of Fight against the Desertification
  - Elaboration of the national report of application of FIXED-TERM CONTRACT
  - Definition of the bases of the creation of the National Fund of fight against the Desertification (FND)
  - Initiative of implementation of a System of Traffic of Information about the Desertification (SCID)
  - Conservation
    - The works of fight against the erosion concerned 440 000 ha among which 99 000 ha of reafforestation of protection, 240 000 ha of fruit groves, 77 000 ha of pastoral and sylvopastoral improvement, and 28 000 ha of works of infiltration (Footpaths)((Banquettes)).
- Fight against silting
  - Works of stabilization of dunes: 28 900 ha in littoral environment, 960 ha in continental

environment, and the stake it défens of 10 000 ha.



### Reafforestation

 In the term of the campaign 96-97, the reafforestation reached(affected) 502 358 ha (8 % of the territory against an optimal rate between 15 and 20 %) among which 47 % in conifer, 40 % in Eucalyptus and 13 % in broad-leaved trees. Half of these reafforestations was realized in the Northwest and the High Atlas.

## **Plans, Programs and strategies**

- National plan of reafforestation (PNR)
- National plan of Desertification (PND)
- National plan of Organization of Ponds Hillsides (PNABV)
- National plan of Irrigation (PNI)
- Strategy of Development of the lands of route(course)
- Main plan of Reafforestation (PDR): 1.5 millions of ha in 2025



RESPONSE

# NATUREL MILIEU

Biodiversity
Oasis
Costal areas

### NATUREL MILIEU

**Biod**iversity : A threatened biologic variety

1670 sorts of flora and 610 sorts of Fauna are Threatened

Examples : - the Seal monk: Monachus monachus - Navy tortoises: Caretta caretta - The red coral, the black and white corals, ...

..... An alarming degradation of areas

About 8.3 millions ha of grounds of areas are strongly degraded



# **NATUREL MILIEU (contunied)**

An overexploitation and a degradation forests

An annual loss of 31000 ha (wood of fire, direct clearing, fires and entertainments of different lands);

A disturbing regression at the level of certain regions where the rate of recession exceeded 35% (Chefchaouen, Tétouan, Larache).

# **NATUREL MILIEU (contunied)**

Oases :

Problems of salinity (more than 35 % of grounds water is salted (4 - 6 g/l) and 18 % are very salty > 16g / l)

The silting threatens permanently houses, lands of cultures, irrigation channels and road infrastructure in palm plantations (30.000 ha in the province of Ouarzazate and 250.000 ha in the province of Errachidia).

# **NATUREL MILIEU (contunied)**

A coast areas : constantly threatened ...

- Proliferation of several activities what compromised the balance of the coastal environment (main discharge of waste water: 52 % of the domestic refusals (discharges) (300 Mm3) and 98 % of the industrial liquid refusals (discharges) (945 Mm3);
- Degradation of the hygienic quality of beaches authorized in the bathing (13.4 % of beaches not corresponding to the bathing according to the data 2002-2003);
- Important risks of accidental pollution bound (connected) to hydrocarbons and to dangerous substances.

## STRATEGY AND ACTION PLAN
# **STRATEGIC OBJECTIVES**

Protection environment in the frame of sustainable development :

> Reduction of environment coast degradation

• Amélioration of the economic competitivity and effectiveness ;

Well being of population



# STRATEGIC AXES OF ACTION

- Implementation of a system of information allowing the observation and the follow-up of the environment on a national scale
- Enforcement of the legal and institutional framework in order to assure the efficiency of the environmental policy
- Implementation of incentive and financial measures based on a participative partnership
- Promotion of the sensitization and the education to sit an environmental ethics at the level of all the constituents of the society
- Intensification of the bilateral and multilateral cooperation in environment to insure a transfer to know how ; also to make and concretize the commitments of Morocco on a international level

# NATIONAL ENVIRONMENT ACTION PLAN

**The national action plan target the emprovment of socioeconomic sector** 

taking into account the protection of environment

The action plan defined is a collection of 162 projects grouped in seven programs for an estimate budget of 2.4 MD de Dh (0.24 MD \$);





Nombre de projets

#### **ENVIRONMENTAL ACTION PLAN**





### **CONCLUSION AND PERSPECTIVES**

- The definition of a national sustainable sustategy relates certainly on universal concept but should however be adapted to the various specific contexts
- To Know about humain ressources actors of sustainable development is also important in the adequate definition and specific national sustainable strategy
- The approach PSR and (more) approach DPSIR allows a better evaluation of the environment and a relevant analysis of the engaged policies
- It also has the advantage of the comparability at the international level because widely used in particular on the Global Environmental Outlook (GEO)



# Thank you for your attention



## Contact

Ministère de l'Aménagement du Territoire de l'Eau et de l'Environnement Observatoire National de l'Environnement du Maroc (ONEM) 2 Rue Oum ErRbia – Agdal Rabat - Maroc





Tel : (212) 37 68 10 01 Fax : (212) 37 77 89 63

E-mail : <u>onem@minenv.gov.ma</u> (mouradamil@yahoo.fr) Site WEB : <u>www.minen.gov.ma/onem</u>



