



PLAN D'ACTION POUR LA MÉDITERRANÉE
MEDITERRANEAN Action PLAN



Mediterranean Commission on Sustainable Development
(MCSD)

**« INDICATORS FOR THE SUSTAINABLE DEVELOPMENT
IN THE MEDITERRANEAN REGION »**

GLOSSARY



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INTRODUCTION

This glossary has been conceived by the Blue Plan in the framework of the recommendations adopted by the Contracting Parties of the Barcelona Convention at their Eleventh Meeting in Malta in October 1999; these recommendations aimed for setting up a common system of indicators for sustainable development in the Mediterranean region.

They follow up the work carried out by the Mediterranean Commission on Sustainable Development (MCSDD; 1998-1999) led to the selection of a first set of 130 indicators suggested for assessing the progress towards Sustainable Development in the Mediterranean countries.

The purpose of this glossary is to specify possible definitions and methods for the calculation of each of the 130 selected indicators in order to promote their common understanding and calculation in the most harmonized way between the various Mediterranean partner countries¹.

The glossary focuses on definitions and does not content any specific chapter on the reasons why each indicator was selected (its relevance), since this was already discussed during the MCSDD preparatory working groups and related in separate reports (see bibliographical references).

It relies mainly on a bibliographical analysis (see bibliographical references) and particularly on the works and methods developed by international Agencies (such as United Nations Agencies, OECD, European Commission – Eurostat – and Environment European Agency) or national institutions (IFEN, IFREMER,..); it has also benefited from other projects on indicators in the Mediterranean (METAP/Blue Plan ppm. projects on Environmental Performance Indicators-1996-2000).

The first version of this document is available in English and French at the Blue Plan².

It will be improved in the future with the remarks and suggestions that are welcome at the Blue Plan.

This work benefited also from the financial support of the European Commission through Life Third countries programme.



¹ Spain, France, Monaco, Italy, Malta, Slovenia, Croatia, Bosnia, Yugoslavia, Albania, Greece, Turkey, Syria, Lebanon, Israel, Palestinian Territories, Cyprus, Egypt, Libya, Tunisia, Algeria, Morocco.

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PRESENTATION OF THE GLOSSARY STRUCTURE

The indicators are classified according to the thematic framework adopted by the Mediterranean Commission of Sustainable Development (MCSD) inspired by the Med21 Agenda:

THEMATIC FRAMEWORK OF INDICATORS FOR SUSTAINABLE DEVELOPMENT IN THE MEDITERRANEAN

1 POPULATION AND SOCIETY

- 1.1 Demography and population*
- 1.2 Standard of life, social inequities, poverty, employment, unemployment*
- 1.3 Culture, education, training, sensibilisation*
- 1.4 Health, public health*
- 1.5 Consumption and production patterns*

2 TERRITORY AND HUMAN SETTLEMENTS

- 2.1 Habitat and urban systems*
- 2.2 Rural and dry areas, mountains and hinterland*
- 2.3 Forest*
- 2.4 Littoral and « littoralisation »*
- 2.5 Sea*

3 ECONOMIC ACTIVITIES AND SUSTAINABILITY

- 3.1 Global economy*
- 3.2 Agriculture*
- 3.3 Fisheries, aquaculture*
- 3.4 Mines, industry*
- 3.5 Services and commerce*
- 3.6 Energy*
- 3.7 Transports*
- 3.8 Tourism*

4 ENVIRONMENT

- 4.1 Freshwater and wastewater*
- 4.2 Soils, vegetation and desertification*
- 4.3 Biological diversity, ecosystems*
- 4.4 Solid, industrial and hazardous waste*
- 4.5 Air quality*
- 4.6 Natural and technological risks*

5 SUSTAINABLE DEVELOPMENT: ACTORS AND POLICIES

- 5.1 Actors of the sustainable development*
- 5.2 Policies and strategies of the sustainable development*

6 EXCHANGES AND COOPERATION IN THE MEDITERRANEAN

- 6.1 International trade, Free trade zone and environment*
- 6.2 Others Mediterranean exchanges*
- 6.3 Mediterranean cooperation in the fields of environment and sustainable development*

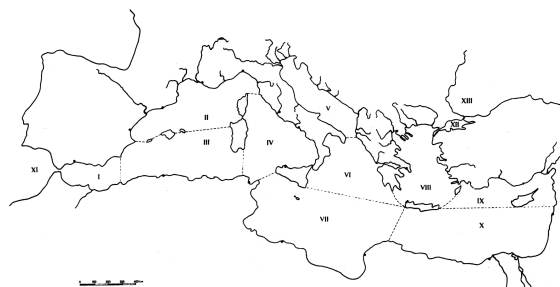
In each topic, the indicators are classified according to the OECD conceptual framework: Pressure-State-Response.

Each indicator is presented with: 1) a brief definition; 2) the measurement unit; 3) comments on the methodologies recommended for its computing; 4) possible sources already identified by the Blue Plan and, 5) the recommended geographical level for its calculation.

GEOGRAPHICAL AND TIME SCALE

Most of the indicators are conceived for a **geographical scale** corresponding to the national or country level; however, some indicators can also (or exclusively) be calculated either for smaller geographical units (coastal region, coastal strip, spot) or for larger units (marine zones).

The *marine zone level* refers to the zoning adopted in the study on telluric pollutants in the Mediterranean carried out by the MAP/Medpol in 1984. There the Mediterranean was subdivided in XIII zones. This zoning concerns only two indicators (n°34 and 36).



The *national geographical level* corresponds to the whole national territory. The countries having non-Mediterranean extra-metropolitan territories should not be mentioned here

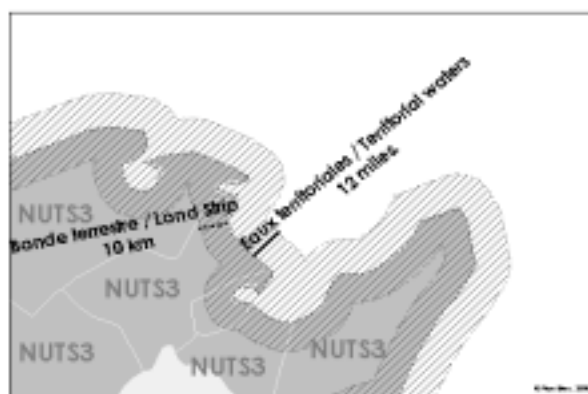


The *coastal region level* corresponds to the administrative regions equivalent to the level 3 of the Nomenclature of the Statistical Territorial Units (NUTS 3) bordering the Mediterranean sea. Depending on indicator, the coastal region should be calculated either for each NUT3 taken individually or summed up for all the NUT3, in only one geographical entity.



The *coastal strip level* zooms even more on coastal areas, being made up of a restricted terrestrial and marine strip.

When not specified, the terrestrial strip is made up either of a 10 km length strip starting from the coastline, or of the total area of the communities (level NUTS 5) bordering the Mediterranean sea. The marine strip is made up of the territorial waters (12 miles).



The *spot level* corresponds to peculiar spots, identified with precise geographical co-ordinates, where measurements are regularly done; for instance: coastal agglomerations or measurement stations for air or water quality monitoring.



Time scale: except for specified cases, all the indicators refer to a civil year period for their calculation. The longer are the series of annual values the better is the possible analysis of trends and significance of the indicator.

BIBLIOGRAPHY

YEARBOOK/STATISTICAL YEARBOOK

Eurostat (1997). *Indicateurs de développement durable ; une étude pilote selon la méthodologie de la Commission du Développement Durable des Nations Unies* (Sustainable development indicators – a pilot study using methodology by the United Nations Commission for Sustainable Development), Eurostat, European Commission, 1997.

International Road Federation (1999), *Road statistics*, Geneva, 1999.

United Nations (1995). *Annuaire statistique, quarantième édition* (Statistical Yearbook, Fortieth issue), New York, 1995.

United Nations (1998). *Annuaire des statistiques de l'énergie 1996* (Energy statistics yearbook), New York, 1998.

United Nations/FAO (1990). *FAO Annuaire, production 1989* (FAO yearbook, production 1989), Rome, 1990.

United Nations/FAO (1998). *Bulletin statistique des pêches, statistiques des flottes de pêche* (Bulletin of fishery statistics, fishery fleets statistics), Rome, 1998.

United Nations/FAO (1998). *FAO Annuaire, statistiques des pêches, Captures et quantités débarquées 1991* (FAO yearbook, fishery statistics, catches and landings), Rome, 1993, vol.72.

United Nations (1998). *World Population Prospects: The 1996 Revision*, New York, 1996

OECD (1994). *Indicateurs d'environnement, corps central de l'OCDE* (Environmental indicators, OECD core set), Paris, 1994.

OECD (1999). *Données OCDE sur l'environnement* (OECD environmental data), Paris, 1999.

Organisation Mondiale du Tourisme (1999). *Compendium de statistiques du tourisme 1993-1997*, Madrid, 1999.

Blue Plan : MARGAT (J.), VALLEE (D.). *Ressources en eau et utilisations dans les pays méditerranéens : Repères et statistiques* (Water Resources and uses in the Mediterranean countries: figures and facts), 2000.

UNESCO (1998). *Annuaire statistique 1998* (Statistical Yearbook 1998) , Paris, 1998.

METHODOLOGICAL GUIDELINES

European Commission (1994). *SERIEE – système européen pour le rassemblement des informations économiques sur l'environnement – version 1994*, Luxembourg, 1997.

European Commission (1999). *Towards environmental pressure indicators for the EU*, Luxembourg, 1999.

Eurostat (1998). *Pressure indicators sheets, draft*, unpublished.

OECD/EUROSTAT (1998). *Questionnaire sur l'état de l'Environnement* (Questionnaire on the state of the Environment), Paris, 1998.

United Nations (1996). *Indicateurs du développement durable, structure générale et aspects méthodologiques*, New York, 1999.

United Nations (1996). *Indicators of sustainable development, framework and methodologies*, New York, 1996.

Blue Plan/Observatoire du Sahara et du Sahel (1996). *Indicateurs d'économie de l'eau 1996*, Paris, 1996.

REPORTS

World Bank (1999). *Rapport sur le développement dans le monde 1997*.

World Bank (1996). *Social indicators of development, 1996*, Baltimore, 1996.

World Bank (1999). *World development report 1998-1999*, New York, 1999.

WRI/PNUC/PNUD/World Bank (1997). *Ressources mondiales, 1996-1997*.

IFEN (1997). *Indicateurs de performance environnementale de la France 1996-1997*, Paris, 1997.

IFEN (1998). *L'environnement en France*, Paris, 1999.

IFEN (1998). *The environment in France*, Paris, 1999.

IFREMER. Communication personnelle (<http://ifremer.fr>)

Blue Plan (1999). *Indicateurs de performance environnementale, liste finale et formulaires descriptifs : Air, Déchets solides, Eau* (Environmental performance indicators, final list and descriptions forms : Air, Solid wastes, Water), Sophia Antipolis, 1999.

Blue Plan : CMDD / PNUC-PAM (1999). *Second atelier du groupe de travail sur les indicateurs pour le développement durable en Méditerranée, Sophia Antipolis, 10-11 mai 1999. Compte rendu*, (Second expert group meeting on indicators for the sustainable development in the Mediterranean Region, Sophia Antipolis, 10-11 May 1999. Report), Sophia Antipolis, Plan Bleu, 1999.

Blue Plan : CMDD / PNUC-PAM (1998). *Premier atelier du groupe de travail sur les indicateurs pour le développement durable en Méditerranée, Tunis, 9-10 juin 1998. Compte rendu*, (First expert group meeting on indicators for the sustainable development in the Mediterranean Region, 9-10 June 1998 Report), Sophia Antipolis, Plan Bleu, 1998.

Blue Plan : METAP / PNUC-PAM (1998). *Comptes rendus des trois ateliers sous-régionaux méditerranéens sur les indicateurs de performance environnementale : Rabat, 24-26 septembre 1998, Le Caire, 8-10 novembre 1998, Split, 26-28 novembre 1998*, (Records of the three sub-regional Mediterranean workshops on environmental performance indicators, Rabat, 24-26 September 1998, Cairo, 8-10 November 1998, Split, 26-28 November 1998), Sophia Antipolis, Plan Bleu, 1998.

RAMADE F. (1997). *Conservation des écosystèmes méditerranéens*, Paris, 1997. Fascicules du Plan Bleu.

ON-LINE AND CD-ROM DATABASE

On line database of the United Nations - Food and Agriculture Organization : (<http://www.fao.org>).

On line database of the UNESCO: (<http://www.unesco.org>).

The World Bank (1999). *World development indicators on CD-ROM*, Washington, 1999.

United Nations (1999). *Statistical Yearbook, Forty-third issue, on CD-ROM*, New York, 1999.

Note: Among these references, the Eurostat/OECD questionnaire on Environment is highlighted, which represents the result of several years of development at international level. This questionnaire is regularly up-dated and used by four Mediterranean European countries; it will also be used in 11 countries benefiting from the MEDSTAT Environment project (1999-2002)³. This project, funded by the European Commission, aims at strengthening national capacities in the production of environmental statistics and promoting harmonisation of environmental data at Mediterranean level.

³ Malta, Turkey, Syria, Lebanon, Israel, Palestinian Territories, Cyprus, Egypt, Tunisia, Algeria, Morocco.

LIST OF INDICATORS FOR SUSTAINABLE DEVELOPMENT (ISD) SORTED BY THEME

ISD are presented according to the thematic framework presented above. They are identified with a number from 1 to 130. This number is different from the one used in the preliminary MCSD works because many of the indicators were changed or cancelled in the process of selection.

Therefore, the column header " MCSD " in the list below reminds the old indicator number used in all the reports referring to the previous MCSD works on indicators (1998-1999).

The column " BLUE PLAN " refers to the 50 ISD already computed at Mediterranean level and presented by the Blue Plan and for which data is available in international sources.

The column " MEDSTAT " indicates the indicators being at least partially calculated in the MEDSTAT Environment project. It will be useful to co-ordinate with the work in progress in the countries involved with this project⁴.

The column " SUB NATIONAL " indicates if the indicator should be calculated at a sub-national geographical level, i.e., on the coastal regions, coastal strip or for the specific Mediterranean spots.

P = Pressure, E = State, R = Response.

CHAPTER AND THEME	N°	T	Indicator name	MCSD	BLUE PLAN	MED STAT	SUB NATIONAL
POPULATION AND SOCIETY							
<i>Demography and population</i>	1	P	Population growth rate	7	yes		yes
	2	R	Total fertility rate	9	yes		
<i>Standard of life, employment, social inequities, poverty, unemployment</i>	3	S	Women per hundred men in the labour force	20	yes		
	4	S	Human poverty index (HPI)	228			
	5	R	Employment rate	322	yes		yes
<i>Culture, education, training, awareness improvement</i>	6	P	School enrolment gross ratio	229	yes		
	7	S	Difference between male and female school enrolment ratios	19	yes		
	8	S	Production of cultural goods	323	yes		
	9	R	Share of private and public finances allocated to the professional training	324			
	10	R	Public expenditure for the conservation and value enhancement of natural, cultural and historical patrimony	325			
	11	S	Life expectancy at birth	24	yes		
<i>Health, public health</i>	12	S	Infant mortality rate	26	yes		
	13	R	Access to safe drinking water	23	yes		
<i>Consumption and production patterns</i>	14	P	Annual energy consumption per inhabitant	47	yes		
	15	P	Number of passenger cars per 100 inhabitants	213	yes		yes

⁴ Malta, Turkey, Syria, Lebanon, Israel, Palestinian Territories, Cyprus, Egypt, Tunisia, Algeria, Morocco.

*List of Indicators for Sustainable Development (ISD)
sorted by theme*

CHAPTER AND THEME	N°	T	Indicator name	MCS D	BLUE PLAN	MED STAT	SUB NATIONAL
	16	S	Main telephone lines per 100 inhabitants	129	yes		
	17	S	Distribution of food consumption per income decile	326			
LANDS AND AREAS							
<i>Habitat and urban systems</i>	18	P	Urban population growth rate	34	yes		yes
	19	P	Loss of agricultural land due to the urbanisation	206		yes	yes
	20	S	Urbanisation rate	37	yes		yes
	21	S	Floor area per person	39			yes
<i>Rural and dry areas, mountains and hinterland</i>	22	P	Population change in mountain areas	84			
	23	R	Existence of program(s) concerning the less favoured rural zones	208			
<i>Forests</i>	24	P	Exploitation index of forest resources	94			yes
	25	S	Forest area	95	yes	yes	yes
	26	R	Forest protection rate	97	yes		yes
<i>Littoral and "littoralisation"</i>	27	P	Artificialized coastline / total coastline	137			yes
	28	P	Number of tourists per km of coastline	205			yes
	29	P	Number of moorings in yachting harbours	327			yes
	30	S	Population growth in Mediterranean coastal regions	72	yes		yes
	31	S	Population density in coastal regions	209	yes		yes
	32	S	Coastline erosion	230			
	33	R	Protected coastal area	212	yes		yes
<i>Sea</i>	34	P	Oil tanker traffic	346			
	35	S	Global quality of coastal waters	347		yes	yes
	36	S	Density of the solid waste disposed in the sea	348			
	37	S	Coastal waters quality in some main "hot spots"	349			
	38	S	Quality of biophysical milieu	350			
	39	R	Protection of specific ecosystems	351			
	40	R	Existence of monitoring programs concerning pollutant inputs	352			
	41	R	Wastewater treatment rate before sea release for coastal agglomerations over 100 000 inhabitants	353		yes	yes
	42	R	Harbour equipment ratio in unballasting facilities	354			
ECONOMIC ACTIVITIES AND SUSTAINABILITY							
<i>Global economy</i>	43	P	Distribution of GDP (Agriculture, Industry, Services)	246	yes		
	44	P	Foreign Direct Investment	328	yes		
	45	S	External debt / GDP	57	yes		
	46	S	Saving / investment	231			
	47	S	Public deficit / GDP	329	yes		
	48	S	Current payments / GDP	330	yes		
	49	S	Employment distribution (Agriculture, Industry, Services)	331	yes		
<i>Agriculture</i>	50	P	Use of agricultural pesticides	87			yes
	51	P	Use of fertilisers per hectare of agricultural land	88	yes		yes
	52	P	Share of irrigated agricultural land	89	yes	yes	yes
	53	P	Agriculture water demand per irrigated area	138			yes
	54	S	"Arable land" per capita	91	yes		yes
	55	S	Rate of food dependence	232			

*List of Indicators for Sustainable Development (ISD)
sorted by theme*

CHAPTER AND THEME	N°	T	Indicator name	MCS D	BLUE PLAN	MED STAT	SUB NATIONAL
	56	S	Annual average of wheat yield	332	yes		
	57	R	Water use efficiency for irrigation	275		yes	
<i>Fisheries, aquaculture</i>	58	P	Value of halieutic catches at constant prices	333			
	59	P	Number and average power of fishing boats	368	yes		
	60	S	Fishing production per broad species groups	217	yes		
	61	S	Production of aquaculture	218	yes		yes
	62	R	Public expenditures on fish stocks monitoring	334			
<i>Mines, industry</i>	63	P	Industrial Releases into water	172		yes	yes
	64	S	Intensity of material use	52			
	65	R	Number of mines and carries rehabilitated after exploitation	233			
<i>Services and commerce</i>	66	S	Turnover distribution of commerce according to the number of employees	335			
	67	S	Share of merchant services to the enterprises	336			
	68	R	Existence of legislations on the hypermarket setting up restriction	371			
<i>Energy</i>	69	P	Energy intensity	234	yes		
	70	P	Energy balance	235	yes		
	71	R	Share of consumption of renewable energy resources	54	yes		
<i>Transports</i>	72	P	Average annual distance covered per passenger car	223	yes		
	73	S	Structure of transport by mode	236	yes		yes
	74	S	Density of the road network	237	yes		yes
	75	R	Share of collective transport	224			yes
<i>Tourism</i>	76	P	Number of nights per 100 inhabitants	337	yes		yes
	77	P	Number of secondary homes over total number of residences	338			yes
	78	P	Number of bed-places per 100 inhabitants	339	yes		yes
	79	P	Public expenditure on tourism development	340			yes
	80	P	Number of international tourists per 100 inhabitants	370	yes		yes
	81	S	Share of tourism receipts in the exportations	341	yes		
	82	S	Currency balance due to tourism activities	342			
	83	R	Public expenditure on tourism sites conservation	343			
ENVIRONMENT							
<i>Freshwater et waste water</i>	84	P	Exploitation index of renewable resources	65	yes	yes	
	85	P	Non-sustainable water production index	344	yes	yes	
	86	S	Share of distributed water not conform to quality standards	149			yes
	87	S	Water global quality index	282		yes	yes
	88	R	Share of collected and treated wastewater by the public sewerage system	70		yes	yes
	89	R	Existence of economic tools to recover the water cost in various sector	154			
	90	R	Drinking water use efficiency	279		yes	
	91	R	Share of Industrial wastewater treated on site	345		yes	yes
<i>Soils, vegetation and</i>	92	P	Ratio of land exploitation	242		yes	

*List of Indicators for Sustainable Development (ISD)
sorted by theme*

CHAPTER AND THEME	N°	T	Indicator name	MCS D	BLUE PLAN	MED STAT	SUB NATIONAL
<i>desertification</i>	93	S	Land use change	77		yes	yes
	94	S	"Arable land" change	186	yes	yes	yes
<i>Biological diversity, ecosystems</i>	95	P	Wetland area	355		yes	yes
	96	P	Number of turtles caught per year	356			
	97	P	Share of fishing fleet using barge	357			
	98	S	Threatened species	98			
	99	R	Total expenditure on protected areas management	358		yes	
<i>Solid, industrial and hazardous waste</i>	100	P	Generation of municipal solid waste	108		yes	yes
	101	P	Generation of hazardous wastes	115		yes	
	102	P	Imports and exports of hazardous wastes	116		yes	
	103	P	Generation of industrial solid waste	247		yes	yes
	104	S	Area of land contaminated by hazardous wastes	117			yes
	105	S	Distribution of municipal wastes	244		yes	yes
	106	R	Minimisation of waste production	245			
	107	R	Cost recovery index of municipal wastes	281		yes	
	108	R	Destination of household wastes	359		yes	
109	R	Collection rate of household wastes	360		yes	yes	
<i>Air quality</i>	110	P	Emissions of greenhouse gasses	102	yes	yes	
	111	P	Emissions of sulphur oxides	103		yes	
	112	P	Emissions of nitrogen oxides	104		yes	
	113	P	Consumption of ozone depleting substances	105	yes	yes	
	114	S	Frequency of excess over air standard (ozone)	268		yes	yes
	115	R	Expenditure on air pollution abatement	107		yes	
	116	R	Share of clean fuels consumption in total motor fuels consumption	270			
117	R	Share of agglomerations over 100 000 inhabitants equipped with a air pollution monitoring network	361		yes		
<i>Natural and technological risks</i>	118	P	Number of sites with high risk	362			
	119	S	Economic impact of natural disasters	363			yes
	120	S	Burnt area per year	364	yes		yes
	121	R	Existence of intervention plans	365			
THE SUSTAINABLE DEVELOPMENT: ACTORS AND POLICIES							
<i>Actors of the sustainable development</i>	122	R	Number of direct employments linked to the environment	221			
	123	R	Number of associations involved in environment and/or sustainable development	369			yes
	124	R	Number of enterprises engaged in "environment management" processes	372			
<i>Policies and strategies of the sustainable development</i>	125	R	Public expenditure on environmental protection as a percent of GDP	59		yes	
	126	R	Existence of environment national plans and/or sustainable development strategies	120			
	127	R	Number of Agendas 21 adopted by local authorities	366			yes

*List of Indicators for Sustainable Development (ISD)
sorted by theme*

CHAPTER AND THEME	N°	T	Indicator name	MCS D	BLUE PLAN	MED STAT	SUB NATIONAL
<i>EXCHANGES AND COOPERATION IN THE MEDITERRANEAN</i>							
<i>International trade, Free trade zone and environment</i>	128	P	Openness rate of GDP	44			
<i>Others Mediterranean exchanges</i>	129	P	Net migration rate	8	yes		yes
<i>Mediterranean cooperation in the fields of environment and sustainable development</i>	130	R	Public development assistance coming from abroad	367			

INDICATOR DESCRIPTION FORMS

1- POPULATION GROWTH RATE		
CHAPTER 1 POPULATION AND SOCIETY	THEME 1 DEMOGRAPHY AND POPULATION	CATEGORY P

1 Definition:

Population growth rate is defined as the average annual rate of change of population size during a specified period.

Formula:
$$\left(\sqrt[y-x]{\frac{P_y}{P_x}} - 1 \right) \times 100$$

P_y = population in year y

P_x = population in year x

2 Unit:

Percentage

3 Methodological description:

The indicator is usually based on either the population growth rate between two censuses; or from population growth components during a period, namely, numbers of births, deaths and migratory balance.

4 Data sources identified and possible:

Data from the Population Division of the United Nations which publishes it every five years and carries out projections for all countries in the world. "World Population Prospects: The 1996 Revision", Population Division, Department of Economic and Social Affairs of the United Nations Secretariat. This source, whose projections are updated every two years, has the advantage of providing homogenous definitions and methods. On the other hand, national peculiarities are not taken into account enough.

Registers of births, marriages and deaths.

Census of the national population.

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	YES	YES	-

2- TOTAL FERTILITY RATE		
CHAPTER 1 POPULATION AND SOCIETY	THEME 1 DEMOGRAPHY AND POPULATION	CATEGORY R

1 Definition:

The total fertility rate corresponds to the average number of children that would be born to a woman in her lifetime, if she were to pass through her childbearing years experiencing the age specific fertility rates for that period.

Formula:
$$\sum_{i_0}^{i_n} \frac{\text{nb of births to women of age } i}{\text{Population of women of age } i}$$

i_0 to i_n = Fertility period.

2 Unit:

Children per woman

3 Methodological description:

When data on births by age of mother is of good quality, the total fertility rate is calculated as the total of age-specific fertility rates. An age-specific fertility rate is the ratio of annual births to women at a given age i to the population of women of the same age.

In the opposite case, the fertility rate is calculated indirectly using results of censuses or demographic surveys.

4 Data sources identified and possible:

World Population Prospects, the 1998 revision, United Nations.

Data from national registration system of births.

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	-	-	-

3- WOMEN PER HUNDRED MEN IN THE LABOUR FORCE		
CHAPTER 1 POPULATION AND SOCIETY	THEME 2 STANDARD OF LIFE, EMPLOYMENT, SOCIAL INEQUITIES, POVERTY, UNEMPLOYMENT	CATEGORY E

1 Definition:

This is the number of women per hundred men in the active population. The indicator is calculated starting from the percentages of women in the working population.

2 Unit:

Number per hundred men

3 Methodological description:

The economically active population or "work force" is made up of two components: working population and the unemployed.

Active population was defined by the Thirteenth International Conference of the International Labour Organisation (ILO, 1982), its estimation based on demographic surveys which detail:

- The surveyed population including all normal residents or everyone present in the country at the moment of the survey (general survey).
- A minimum age limit specified by national policies or empirically determined on the basis of the extent and the intensity of participation of young people in economic activities.
- The involvement in economic activities during the survey reference period.

4 Data sources identified and possible:

International Labour Organisation (ILO) in the World Bank CD-Rom, WDI 1998: Serial data about women share in the labour force.

Population censuses and household sample surveys.

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	-	-	-

4- HUMAN POVERTY INDEX (HPI)		
CHAPTER 1 POPULATION AND SOCIETY	THEME 2 STANDARD OF LIFE, EMPLOYMENT, SOCIAL INEQUITIES, POVERTY, UNEMPLOYMENT	CATEGORY E

1 Definition:

The human poverty index (HPI) reflects the distribution of progress and measures the backlog of deprivations that remains.

The HPI measures deprivation by using the same dimensions of basic human development as the Human Development Index: ageing, knowledge, life conditions (UNDP definition).

Formula : $HPI-1 = \left[\frac{1}{3}(P_1^3 + P_2^3 + P_3^3) \right]^{1/3}$ with $P_3 = \frac{(P_{31} + P_{32} + P_{33})}{3}$

$$HPI-2 = \left[\frac{1}{4}(P_1^3 + P_2^3 + P_3^3 + P_4^3) \right]^{1/3}$$

2 Unit:

None

3 Methodological description:

The index is calculated differently in developing countries (IPH-1) and in the developed countries (IPH-2).

HPI-1 measures poverty in developing countries. The variables used (percentages) are:

P_1 = the percentage of people expected to die before age 40,

P_2 = the percentage of adults who are illiterate and

P_3 = deprivation in overall economic provisioning—public and private—reflected by the percentage of people without access to health services (P_{31}) and safe water (P_{32}) and the percentage of underweight children under five (P_{33}).

HPI-2 Introduced in the UNDP 1998 report. It measures human poverty in industrial countries. Because human deprivation varies with the social and economic conditions of a community, this separate index has been devised for industrial countries, drawing on the greater availability of data. It focuses on deprivation in the same three dimensions as HPI-1 and one additional one, social exclusion. The variables are:

P_1 = the percentage of people likely to die before age 60,

P_2 = the percentage of people whose ability to read and write is far from adequate,

P_3 = the proportion of people with disposable incomes of less than 50% of the median and

P_4 = the proportion of long-term unemployed (12 months or more).

4 Data sources identified and possible:

United Nations Development Program (UNDP).

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	-	-	-

5- EMPLOYMENT RATE		
CHAPTER 1 POPULATION AND SOCIETY	THEME 2 STANDARD OF LIFE, EMPLOYMENT, SOCIAL INEQUITIES, POVERTY, UNEMPLOYMENT	CATEGORY R

1 Definition:

The employment rate measures the percentage of the active population in employment. In practise this is calculated as a 100% corollary to the unemployment rate.

2 Unit:

Percentage

3 Methodological description:

The unemployment rate measures the proportion of the active population that, during the reference period was:

- a) "Jobless", that is without paid or independent employment;
- b) "Available", that is to say that could be hired for a job (paid or independent) during the reference period;
- c) "Looking for employment", that is that they have taken specific steps at a certain time to find paid employment or an independent occupation.

4 Data sources identified and possible:

Data on the unemployment rate are published in the United Nations Statistical Yearbooks. They come from the Work Statistics Yearbook from the International Labour Organisation, which give a full account of the approach used for drawing up the figures on labour.

National definitions of employment and joblessness often differ from the standard recommended international definitions, which thus limit the options for making comparisons between countries.

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	YES	-	-

6- SCHOOL ENROLMENT GROSS RATIO		
CHAPTER 1 POPULATION AND SOCIETY	THEME 3 CULTURE, EDUCATION, TRAINING, AWARENESS IMPROVMENT	CATEGORY P

1 Definition:

The school enrolment ratio measures the gap between theory and reality as regards schooling. Distinction must be made between gross and net ratio whose definitions (UNESCO) are specified here.

Formula of the gross school enrolment ratio: $GER_h^t = \frac{S_h^t}{P_{h,a}^t} \times 100$

Thus, for a given school-year t:

Ph,t,a = Population in an age group a which officially (theoretically) corresponds to the level of education h in the school-year t.

Sh,t = The population actually enrolled at the level of education h in school-year t (regardless of age).

It thus represents, for a given year, the ratio between: the total number of pupils in a specific level of education, primary or secondary, regardless of age, and the official school-age population corresponding to the same level of education in given school-year. This rate can be over 100% (pupils who remain a second year in the same class).

The net school enrolment ratio is defined by the formula: $NER_h^t = \frac{S_{h,a}^t}{P_{h,a}^t} \times 100$

Thus, for a given school-year t, if:

Ph,t,a = Population in an age group a, which officially corresponds to the level of education h in school-year t.

Sh,t,a = Population actually enrolled at the level of education h in school-year t which has official age a for the level.

It thus represents, for a given year, the ratio between: the total number of pupils in a specific level of education, primary or secondary, of age a, and the total official school-age population corresponding to the same level of education in given school-year. This ratio is always equal to or less than 100%.

2 Unit:

Percentage

3 Methodological description:

The choice between net and gross enrolment ratio depends on the availability of data in the country. It is always better to use the net enrolment ratio if the data is good enough (long series, without too many gaps).

4 Data sources identified and possible:

Statistical Yearbook of the UNESCO and on-line databank: <http://www.unesco.org>.

Scholar census managed by the Ministry of Education.

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	-	-	-

7- DIFFERENCE BETWEEN MALE AND FEMALE SCHOOL ENROLMENT RATIOS		
CHAPTER 1	THEME 3	CATEGORY
POPULATION AND SOCIETY	CULTURE, EDUCATION, TRAINING, AWARENESS IMPROVMENT	E

1 Definition:

This is the arithmetical difference between male and female school enrolment ratio at primary and secondary school levels.

Formula: $ER_{\text{boys}} - ER_{\text{girls}}$

ER = % school Enrolment Ratio. This ratio may be net or gross.

2 Unit:

Percentage

3 Methodological description:

Definitions of gross and net enrolment ratio are presented in the indicator n°6. The choice between net and gross enrolment ratio depends on the availability of data in the country. It is always better to use net enrolment ratio if the data is good enough (a long series, without too many gaps).

4 Data sources identified and possible:

Statistical Yearbook of the UNESCO and on-line databank: <http://www.unesco.org>.

Scholar census managed by the Ministry of Education.

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	-	-	-

8- PRODUCTION OF CULTURAL GOODS		
CHAPTER 1 POPULATION AND SOCIETY	THEME 3 CULTURE, EDUCATION, TRAINING, AWARENESS IMPROVMENT	CATEGORY E

1 Definition:

This indicator is made of two sub-indicators:

- The first sub-indicator represents the average annual total (3 years period) of the number of first editions titles and the re-edition of original books or translations.
- The second sub-indicator concern the number of long films produced or co-produced during the year.

2 Unit:

Number / year

3 Methodological description:

At international level, data collected by the UNESCO since 1986 conforms to the revised recommendations concerning the International Standardization of Statistics relating to book production, adopted by the UNESCO at its 23rd General Conference:

The following type of publications should be included in book production statistics: Government publications, school textbooks, university theses, offprints, and illustrated works.

Titles are printed publications, which form a separate whole, whether issued in one or several volumes, they are books or pamphlets.

A *book* is a non-periodical, printed publication of at least 49 pages.

A *pamphlet* is a non-periodical printed publication of at least 5 but not more than 48 pages. Both must be published in the country and made available to the public.

A *first edition* is the first publication of an original or translated manuscript. A *re-edition* is a publication that differs from previous publications in content or layout and which requires a new ISBN.

It is proposed that the data relating to the titles be averaged over a 3-year period.

The Universal Decimal Classification (UDC) classes are: General, Philosophy, Religion, Social Sciences, Philology, Pure Sciences, Applied Sciences, Art, Literature, Geography/History.

A *film* is a full-length film with a minimum length that varies according to the country, generally it is 1600 m.

4 Data sources identified and possible:

Ministry of Culture

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	-	-	-

9- SHARE OF PRIVATE AND PUBLIC FINANCES ALLOCATED TO THE PROFESSIONAL TRAINING		
CHAPTER 1	THEME 3	CATEGORY
POPULATION AND SOCIETY	CULTURE, EDUCATION, TRAINING, AWARENESS IMPROVEMENT	R

1 Definition:

This indicator is composed of two sub-indicators, which are defined as:

1. The proportion of the public sector operational budget devoted to vocational training and
2. The proportion of private sector GDP expenditure spent on vocational training.

2 Unit:

Percentage

3 Methodological description:

Expenditure on vocational training is the funds used to pay teachers, including their sundry expenses, to finance reception facilities provided they are only used for training or for the firm's own use.

The indicator is defined separately for the public sector and the private sector.

The public sector includes central and local government, and communities on which the State exerts a decisive influence.

The private sector refers to all companies whose capital is held by individuals, by private corporations or companies.

GDP is an aggregate of National Income Accounting providing a measurement of the added value created by income earning activities in the economy within the country.

4 Data sources identified and possible:

Surveys are certainly the best sources of information for the private sector.

Public accounts must identify professional training expenditures.

Ministry of Education

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	-	-	-

10- PUBLIC EXPENDITURES FOR THE CONSERVATION AND VALUE ENHANCEMENT OF NATURAL, CULTURAL AND HISTORICAL HERITAGE		
CHAPTER 1	THEME 3	CATEGORY
POPULATION AND SOCIETY	CULTURE, EDUCATION, TRAINING, AWARENESS IMPROVEMENT	R

1 Definition:

This indicator is defined by the amount of the net total public expenditure allocated in the conservation, the management or the enhancement of the cultural, historical and natural heritage.

2 Unit:

Current US dollars

3 Methodological description:

The indicator measures the public effort for preservation, the enhancement and the maintenance of the national heritage. The heritage can include as well:

- Historic sites, museums, the architectural heritage
- The natural sites, which they are or not protected; forests, landscapes.
- Culture: languages, arts and traditional craft industries, expertises, the vernacular heritage...

Each country may have a different definition of heritage that would be useful to explain.

The public expenditures concern the national expenditures as well as those of the local communities. In certain countries where the intervention of the local communities is dispersed or not easily registered, only the national expenditure will be mentioned.

The net amount of expenditures is calculated according to the formula: (Investment expenditure + Current expenditure + Subsidies to private sector) - (Receipts from by-products + Fees/charges from private sector).

- **Investment expenditure:** outlays and enhancement of durable goods financed by the public sector.
- **Current expenditure:** Processing, rents, wages, energy, maintenance costs, purchase of goods and services, for heritage under public management.
- **Public subsidies:** Financial transfers of the public towards the private one aiming at conservation or enhancement of the heritage under private management.
- **Receipts from by-products:** Where patrimonial estate, under public management, entails receipts from selling a by-product of this activity (e.g. postcards, book, etc), these receipts must be deducted from gross expenditure incurred.
- **Fees:** Financial transfers from patrimonial estate under private management to the public sector. Only taxes that are directly used for financing conservation and value enhancement expenditures by the public sector are included.

4 Data sources identified and possible:

Ministries of Culture, Economy, Tourism and Environment are possible data sources at national level.

Local governments and regional communities are possible data sources at local level.

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	-	-	-

11- LIFE EXPECTANCY AT BIRTH		
CHAPTER 1 POPULATION AND SOCIETY	THEME 4 HEALTH, PUBLIC HEALTH	CATEGORY E

1 Definition:

This is the average number of years a new-born child could expect to live, if the age-specific death rates, as calculated at birth were to apply for the rest of its life.

2 Unit:

Years

3 Methodological description:

The calculation of life expectancy at birth is based on age-specific death rates, which can be calculated separately for males and females, or for both sexes combined.

The death rates are commonly tabulated for ages 0 to 1 years, 1 to 5 years, and for 5-year age groups for age 5 and above.

Where data on deaths by age are of good quality, or adjustments for age misstatement and incompleteness can be made, the life expectancy at birth can be calculated directly from registered deaths and population counts, which are usually based on census enumerations, evaluated and, if necessary, adjusted.

When data on deaths by age are unavailable from registration systems or sample surveys, the life expectancy at birth can be calculated through "indirect" methods based on special questions asked in census or demographic surveys.

4 Data sources identified and possible:

World Population Prospects: The 1998 revision, published by the Population Division of the United Nations Secretariat.

Census or demographic surveys at national level.

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	-	-	-

12- INFANT MORTALITY RATE		
CHAPTER 1 POPULATION AND SOCIETY	THEME 4 HEALTH, PUBLIC HEALTH	CATEGORY E

1 Definition:

This indicator is defined by the number of deaths of children under one year old over a period of time, per 1000 live births during the same period.

2 Unit:

Number per thousand

3 Methodological description:

Data on newborn or infant child deaths can be found in registers of births, marriages and deaths, or urban hospitals.

Infant mortality rate can be calculated through indirect or modelling methods based on questions asked in censuses or demographic surveys.

4 Data sources identified and possible:

World Population Prospects, the 1998 revision, United Nations.

In the absence of births, marriages and deaths system some special studies carried out on representative samples of the population can provide the necessary data.

Births, marriages and deaths register, survey, census, demographic survey are the first data sources.

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	-	-	-

13- ACCESS TO SAFE DRINKING WATER		
CHAPTER 1 POPULATION AND SOCIETY	THEME 4 HEALTH, PUBLIC HEALTH	CATEGORY R

1 Definition:

This indicator represents the proportion of population with access to an adequate amount of safe drinking water (at least 20 litres per day and per person).

2 Unit:

Percentage

3 Methodological description:

The indicator measures the population's access rate to infrastructures delivering safe drinking water.

Safe drinking water is water that does not contain biological or chemical pathogenic agents at concentration levels directly detrimental to health. It includes treated surface waters and untreated but uncontaminated water such as that from protected boreholes, springs, and sanitary wells. Streams and lakes waters should be considered safe only if the water quality is regularly monitored and considered acceptable by public health officials.

Reasonable access to water means a water supply in the dwelling or within 15 minutes walking distance.

This indicator is close to the indicator n°86 which measures, on these water supply points, the accidents frequency.

4 Data sources identified and possible:

World Bank: World Development Indicators, 1999

The World Health Organization (WHO)

EPI information system of WHO (Global Summary, September 1998)

UNICEF (State of the children of the world, 1999)

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	-	-	-

14- ANNUAL ENERGY CONSUMPTION PER INHABITANT		
CHAPTER 1	THEME 5	CATEGORY
POPULATION AND SOCIETY	CONSUMPTION AND PRODUCTION PATTERNS	P

1 Definition:

This is the amount of energy –liquid, solid, gas, or electricity– used by an individual in a given year in a given geographical area.

2 Unit:

Ton oil equivalent per capita

3 Methodological description:

Consumption refers to "apparent consumption", derived from the formula "production + imports - exports - (+/-) stock changes".

Energy consumption values are converted in tons of oil equivalent according to conversion factors of the International Energy Agency (IEA) Statistical Yearbook 1996. There is a conversion factor proposal in indicator n°71.

The retrospective figures of the population can come from a national estimate of the total population resident at the year considered or from the United Nations (cf. indicator n°1).

4 Data sources identified and possible:

International Energy Agency (IEA): Statistiques et bilans énergétiques des pays de l'OCDE 1995-1996 OCDE Edition 1998 and Statistiques et bilans énergétiques des pays non-membres 1995-1996 OCDE Edition 1998.

Ministries of Economy, Industry and Environment

National energy Agency.

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	-	-	-

15- NUMBER OF PASSENGER CARS PER 100 INHABITANTS		
CHAPTER 1	THEME 5	CATEGORY
POPULATION AND SOCIETY	CONSUMPTION AND PRODUCTION PATTERNS	P

1 Definition:

This indicator is calculated by taking the proportion of passenger cars in use over the total population multiplied by 100.

2 Unit:

Number per hundred inhabitants

3 Methodological description:

Passenger cars are those with no more than 9 seats including hire cars, taxis, jeeps, estate cars and other light transport mixed-use vehicles.

The retrospective figures of the population can come from a national estimate of the total population resident at the year considered or from the United Nations (cf. indicator n°1).

4 Data sources identified and possible:

International Road Federation database, World Road Statistics

United Nations Statistical Yearbooks

Ministry of Transports

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	YES	-	-

16- MAIN TELEPHONE LINES PER 100 INHABITANTS		
CHAPTER 1	THEME 5	CATEGORY
POPULATION AND SOCIETY	CONSUMPTION AND PRODUCTION PATTERNS	E

1 Definition:

The indicator is obtained by dividing the number of installed main telephone lines by the population and multiplying the result by 100.

Formula :
$$\frac{\text{Telephone line nb} \times 100}{\text{Inhabitant nb}}$$

2 Unit

Number per hundred inhabitants

3 Methodological description:

The definition of a main telephone line is a telephone line connecting a subscriber's terminal to the public switched telephone network and which has a dedicated port in the telecommunication network.

Because of the fast development of cellular phones, it is suggested that the number of subscribers to cellular telephony systems be included.

4 Data sources identified and possible:

International Telecommunications Union (ITU). Series: Telephone main lines (per 1,000 people).

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	-	-	-

17- DISTRIBUTION OF FOOD CONSUMPTION PER INCOME DECILE		
CHAPTER 1 POPULATION AND SOCIETY	THEME 5 CONSUMPTION AND PRODUCTION PATTERNS	CATEGORY E

1 Definition:

This indicator is defined as the proportion of the annual budget devoted by the inhabitants of a country to food consumption. Population is broken down into income deciles for which the amount of food expenditure as a percentage of income is supplied.

2 Unit:

Percentage for each income decile

3 Methodological description:

The indicator may, according to the country, be estimated based on the income of the inhabitants, or on household consumption.

Generally, the results of representative surveys carried out at national level are used. These allow the population (or households) to be classified according to income and drawing up proportion of income devoted to food expenditure for each class. More the income is low and more the rate should be high.

If the data is only available per household, conversion to the number of inhabitants will be attempted if the size of households is known. If not, the figures per household will be supplied.

The population should be classified according to increasing size of total annual income.

The following table is suggested to assist in calculating the indicator:

	(1) Total annual income	(2) Annual food expenses amount	Ratio (2)/(1)
Class A	_____	_____	_____
D1			
Class B	_____	_____	_____
D2			
Class C	_____	_____	_____
D3			
Class D	_____	_____	_____
D4			
Class E	_____	_____	_____
D5			
Class F	_____	_____	_____
D6			
Class G	_____	_____	_____
D7			
Class H	_____	_____	_____
D8			
Class I	_____	_____	_____
D9			
Class J	_____	_____	_____

Size of Classes: _____ by inhabitant or households

Year of survey: _____

* Use a separate table for each year.

The monetary values for the deciles, for the total and food budgets should be converted from local currency into current US dollars by using the World Bank conversion tables for example.

The deciles are the values for a feature that divide the total size of a range into 10 equal groups, values for the range being sorted in increasing order. There are nine deciles annotated as D1 to D9 that separate ten equivalently sized population classes. In the table above, class A represents the 10% of the population that has the lowest income; class J the 10% with the highest income.

4 Data sources identified and possible:

United Nations: National accounts statistics.

Eurostat Statistical Yearbook

World Bank

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	-	-	-

18- URBAN POPULATION GROWTH RATE		
CHAPTER 2 LANDS AND AREAS	THEME 1 HABITAT AND URBAN SYSTEMS	CATEGORY P

1 Definition:

It is the average annual rate of change of urban population, this rate being calculated for a specific period.

Formula:
$$\left(\sqrt[y-x]{\frac{P_y}{P_x}} - 1 \right) \times 100$$

P_y = population in year y

P_x = population in year x

There is no internationally agreed definition of urban areas. The development of the urban areas makes their demarcation delicate compared to the rural areas, which especially in the neighbourhoods of the cities, urbanize in a diffuse way.

2 Unit:

Percentage

3 Methodological description:

United Nations: the urban population growth rate of a country is generally based on intercensal urban growth rate calculated from two censuses; the demarcation of urban areas is usually defined by countries as part of census procedures.

4 Data sources identified and possible:

United Nations, population division: World Urbanisation Prospects: the 1996 revision. In this source, urban areas are defined according to national definition of urbanisation that may be different.

"Geopolis" database provides an homogenous definition of urban area that is "built up area over 10 000 inhabitants, that can also be used.

Report to indicator n°1 for the population data.

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	YES	YES	-

19- LOSS OF AGRICULTURAL LAND DUE TO THE URBANISATION		
CHAPTER 2 LANDS AND AREAS	THEME 1 HABITAT AND URBAN SYSTEMS	CATEGORY P

1 Definition:

This indicator is defined as the amount of farmland used for development, out of the total farmland. This indicator that is complementary to the loss of farmland, requires knowledge of the class changes from farmland to built lands.

2 Unit:

Percentage

3 Methodological description:

Changes in land use are usually known in the departments in charge of farming and town planning in local and district authorities.

With a view to harmonisation and simplicity, the nomenclature put forward in the OECD-Eurostat questionnaire is suggested for use:

1. Farmland
 - 1.1 Arable Land
 - 1.2. Land devoted to permanent crops
3. Built land.

The indicator is presented as the ratio of the area of change from farmland (1.1 and 1.2) in favour of built land (3), as a percentage of the total area for class 1 (1.1 + 1.2) during the period examined.

Data on changes in land use may be drawn from periodic work in cartography and monitoring, from remote sensing data, supported by on-site checks or regular investigations of the use of land.

4 Data sources identified and possible:

Territorial and local administrations

For the European countries, the updated project of Landcover (CLC2000) should also provide elements to calculate the class change matrix of land use.

The items necessary to the indicator calculation are contained at least partially in the Eurostat/OECD questionnaire on the Environment, which can provide methodological complements. These items of calculation will be partly gathered during the MEDSTAT Environment project (12 Mediterranean countries, 1999-2002).

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	YES	YES	-

20- URBANISATION RATE		
CHAPTER 2 LANDS AND AREAS	THEME 1 HABITAT AND URBAN SYSTEMS	CATEGORY E

1 Definition:

It is the percentage of total urban population of a country (defined according to national criteria applied at the time of the last population census).

Formula: Population in urban area / Total population

2 Unit:

Percentage

3 Methodological description:

The demarcation of urban areas is usually defined by countries as part of census procedures, and is usually based on the size of localities, classification of areas as administrative centres, or classification of areas according to special criteria such as population density or type of economic activity of residents.

4 Data sources identified and possible:

This indicator is named "percent of population in urban areas" in the CSD-UN list.

United Nations, Population Division: World Urbanisation Prospects: the 1996 revision and the World Population Prospects: the 1998 revision. In this source, urban areas, in each country, are defined according to national definition of urbanisation that may be different.

"Geopolis" database provides an homogenous definition of urban area that is "built up area over 10 000 inhabitants", that can also be used.

Report to indicator n°1 for the population data.

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	YES	YES	-

21- FLOOR AREA PER PERSON		
CHAPTER 2 LANDS AND AREAS	THEME 1 HABITAT AND URBAN SYSTEMS	CATEGORY E

1 Definition:

This indicator is living space per person. It is defined as the ratio of median floor area per dwelling unit to the average household size per dwelling unit.

2 Unit:

Square meter per capita

3 Methodological description:

The median floor area is the dwelling unit area divided into two class sizes equal to the total housing stock classified by floor area in ascending order. The first half is made up of housing with an area below the median floor area. The other half includes dwelling units with higher than median floor area. For example, 100 m² is the median floor area which separates 1 200 000 dwelling units into two class sizes of 600 000 (according to the floor space criterion).

The floor area should include all living space, including bathrooms, internal corridors and closets. Covered semi-private spaces such as corridors, inner courtyards or verandas should be included in the calculation if used by the household for cooking, eating, sleeping, or other domestic activities. Floor area refers to a housing unit, defined as a separate and independent place intended for dwelling by one household at the time of the census or other inquiry.

The average size of household per dwelling unit is equal to the average number of people per dwelling unit.

Note:

- If survey data or the last census are available, they can be used. Without anything better, the floor area of median cost housing can be used as an approximate value.
- If the median cannot be estimated, the average should be used.

4 Data sources identified and possible:

Main sources of data are censuses or household surveys.

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	YES	-	-

22- POPULATION CHANGE IN MOUNTAIN AREAS		
CHAPTER 2 LANDS AND AREAS	THEME 2 RURAL AND DRY AREAS, MOUNTAINS AND HINTERLAND	CATEGORY P

1 Definition:

A measure of population (i) density, (ii) growth, and (iii) migration, as indications of demographic changes in mountain areas.

2 Unit:

Measurement units are respectively: (i) households or persons per unit area; (ii) numbers and percentage of households or persons involved in out-migration; (iii) growth or reduction of population and of migration numbers over time.

3 Methodological description:

Population density, demographic growth, and migration are defined in other indicators (31, 1 and 129).

Mountains are extensive physiographical features, which demonstrate clear altitude sequences in climate, soil, or natural vegetation. Mountain ecosystem as a whole can include mountain basins, valleys, and high plateaus, as well as the mountains themselves. Mountains may also be defined in terms of population groups, which represent social and economic living conditions related to the topography and distinct from areas defined as plains and lowlands. For this indicator the countries will have to specify their definition of the term "mountain areas".

4 Data sources identified and possible:

The data necessary to this indicator can be extracted from demographic statistics, censuses as well as statistics of migrations and labour.

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	-	-	-

23- EXISTENCE OF PROGRAM(S) CONCERNING THE LESS FAVOURED RURAL ZONES		
CHAPTER 2 LANDS AND AREAS	THEME 2 RURAL AND DRY AREAS, MOUNTAINS AND HINTERLAND	CATEGORY R

1 Definition:

This indicator shows the existence (or otherwise) of programmes to favour underprivileged rural areas in the country.

2 Unit:

Yes / No, if so, join a descriptive sheet of these programs.

3 Methodological description:

Some rural areas have the benefit of special assistance programmes to make up for backwardness in terms of facilities, infrastructure or to lessen gaps in income, in access to services or in the training of the population.

These national or international programmes pre-suppose a land zoning in accordance to these criteria and the definition of terms of access to assistance. These terms and criteria may also be filled out.

4 Data sources identified and possible:

National and regional administrations

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	-	-	-

24- EXPLOITATION INDEX OF FOREST RESOURCES		
CHAPTER 2 LANDS AND AREAS	THEME 3 FORESTS	CATEGORY P

1 Definition:

The index shows the annual volume of wood removed from forests expressed as a percentage of the annual increment of wood (in forest).

It is calculated as the ratio of annual production of round wood to the total annual increment of the productive forest.

A ratio higher than 100, can indicate "overexploitation" of the forest.

2 Unit:

Percentage

3 Methodological description:

The definitions have been established by the Food and Agriculture Organization (FAO):

- Annual round wood production includes all wood removed from forest and from trees outside the forest. FAO statistics include recorded volumes as well as estimated unrecorded volumes.
- Total annual wood increment, due to the yearly growth of trees, is calculated by evaluating standing tree evolution over time that is the above-ground volume of all living standing trees down to a stated minimum diameter.

This indicator has the same basis as the water exploitation index (n°84).

4 Data sources identified and possible:

FAO (Food and Agriculture Organization) collects at the international level the data coming from the country in the form of questionnaires specifying these definitions.

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	YES	-	-

25- FOREST AREA		
CHAPTER 2 LANDS AND AREAS	THEME 3 FORESTS	CATEGORY E

1 Definition:

This indicator might relate to the surface of natural or planted forests and its evolution over time. Taking into account Mediterranean specificities, in particular the importance of shrubs and definitions employed by FAO, it is proposed that "other woodlands" should be added, and that the indicator should be calculated using the surface classification in "Forests and other woodlands".

2 Unit:

Hectares

3 Methodological description:

The definition of "forest" and "other woodland" proposed by the FAO varies according to country. Stand out Europe and Israel from other countries.

For Europe and Israel:

"Forests" are lands with a minimum tree crown cover (planting density) of more than 20% of the area. Continuous forest is made up of trees reaching generally over 7 m in height and able to produce timber. This includes dense formation forests in which various levels and underbrush cover a large proportion of land, and clear formation forests with a continuous herbaceous layer in which there is tree crown cover for at least 10 percent of the land.

"Other woodlands" are lands with few forest characteristics. These include open woodlands, brushwood, shrub formations and maquis (0.5 to 7 m).

For other countries:

"Forests" are ecosystems where tree crown cover is 10%, generally associated with a wild flora and fauna, with ground in a natural state, and not being under farming use. There are two distinct categories: natural forests (made up of native trees) and plantations (artificial forests).

"Other woodlands" include two categories, fallow forest (resulting from clearing natural forest) and shrubs (0.5 to 7 m).

4 Data sources identified and possible:

FAO Statistical Yearbooks

On-line FAO database (<http://www.fao.org>)

State of the World Forest in 1997, FAO

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	YES	YES	-

26- FOREST PROTECTION RATE		
CHAPTER 2 LANDS AND AREAS	THEME 3 FORESTS	CATEGORY R

1 Definition:

Protected forest area expressed in percentage of the total forest area.

According to the International Union for Conservation of Nature, a protected area is a territory where the preservation and maintenance of the biodiversity and associated cultural resources are implemented by legal or official means.

2 Unit:

Percentage

3 Methodological description:

Two methodologies are proposed for this indicator:

- The first consists in using the definitions of "forest" and "other woodlands" of the FAO, proposed in the indicator n°25 for the total surface of the forests;
- The second, if the first is not available, is to use the definitions and the data suggested by a specific study (a) carried out for World Conservation Monitoring Centre. Those are different from the usual definitions of FAO (above) contained in its statistical yearbooks.

"Forests" are lands with tree cover, usually above 30% (as opposed to 10-20% for the FAO), without any limit on tree height. Trees usually have a shrubby support (a trunk) and are not bushy (several branches coming out from the base). In addition, there is no difference in approach between countries. The point of this study is to establish a percentage of forest area using a methodology common to all countries.

The word "protected" refers to the six UICN classes, which are: Natural or Scientific Reserves (I), National Parks (II), Natural Monuments (III), Habitat or Species Management Reserves (IV), Protected Land or Seascapes (V) and Managed Protected Natural Resource Areas (VI).

(a) Iremonger, S., C. Ravilious and T. Quinton (1997.). "A statistical analysis of global forest conservation". In: Iremonger, S., C. Ravilious and T. Quinton (Eds.) "A global overview of forest conservation". Including: GIS files of forests and protected areas, version 2. CD-ROM. CIFOR and WCMC, Cambridge, U.K.

4 Data sources identified and possible:

World Conservation Monitoring Centre (WCMC).

FAO Statistical Yearbooks.

National and private Administrations in charge of forests.

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	YES	YES	-

27- ARTIFICIALIZED COASTLINE / TOTAL COASTLINE		
CHAPTER 2 LANDS AND AREAS	THEME 4 LITTORAL AND "LITTORALISATION"	CATEGORY P

1 Definition:

This indicator is defined as the ratio of the artificialized coastlines length to the total length of coastline.

2 Unit:

Percentage

3 Methodological description:

A linear coastal segment is considered to be artificialized when one part or the whole of a zone 100 metres long to either side of the segment is, or has recently been subject to man-induced physical changes modifying the original physical condition (dwelling, in-fill, various facilities).

The term "coastal segment" is used because it greatly depends on the calculation method used and size may vary in accordance with techniques.

Bearing in mind the definition, which pre-supposes a resolution of at least 100m, the approaches to observing artificialization are based either on aerial photography or on very precise cartography. The use of civil remote sensing for the fine assessment of these phenomena is hardly realistic.

4 Data sources identified and possible:

Administrations responsible of the Environment or coastal spaces management.

Coastal communities.

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	YES	YES	-

28- NUMBER OF TOURISTS PER KM OF COASTLINE		
CHAPTER 2 LANDS AND AREAS	THEME 4 LITTORAL AND "LITTORALISATION"	CATEGORY P

1 Definition:

This is the number of tourists residing during the peak period, along Mediterranean coastal regions, in proportion to the length of the coastline.

2 Unit:

Number of tourist overnights per km of coastline and per day

3 Methodological description:

The duration of stay by tourists is accounted for in number of overnight stays in the area.

Tourist overnight stays correspond to the number of overnight stays in Hotels and similar establishments, in addition to all the other tourist accommodation structures like campsites, self-catering accommodation, etc.

The peak period is defined as the two weeks period in the year accommodating the greatest number of tourists. This period is unique and indivisible; each country will specify the season and, if possible, the month.

Mediterranean coastal regions are defined as the administrative units, which are the equivalent of level 3 of the Statistic Territorial Units Nomenclature (NUTS 3): the département in France, the wilaya in Algeria, the province in Italy, etc., which border the Mediterranean.

The following table is suggested to assist in setting up the indicator (to be filled out for the peak period):

Tourist Overnight Stays:	International (1)	National (2)	<u>(1 + 2)</u> Linear coastline length
Accommodation Establishments			
Hotels and Similar establishment			
Secondary Dwellings and Self-Catering			
Other Collective Establishments (youth hostels, holiday villages, etc.)			
Camp and Caravan Sites			
TOTAL			

Linear coastline length:

4 Data sources identified and possible:

National and local organizations which work on tourism.

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	YES	YES	-

29- NUMBER OF MOORINGS IN YACHTING HARBOURS		
CHAPTER 2 LANDS AND AREAS	THEME 4 LITTORAL AND "LITTORALISATION"	CATEGORY P

1 Definition:

This indicator is defined as the total number of moorings in the country's sailing harbours, that is to say the potential number of moorings able to take yachts, in a given year.

The indicator figure for Mediterranean ports should also be stated.

2 Unit:

Number

3 Methodological description:

To calculate the indicator, sea and fresh water (river and lakeside) sailing harbours should be taken into account if moorings for yachts are clearly identified.

4 Data sources identified and possible:

Harbour administration.

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	YES	-	-

30- POPULATION GROWTH IN MEDITERRANEAN COASTAL REGIONS		
CHAPTER 2 LANDS AND AREAS	THEME 4 LITTORAL AND "LITTORALISATION"	CATEGORY E

1 Definition:

Population growth rate is defined as the average annual rate of change of population size during a specified period.

Formula:
$$\left(\sqrt[y-x]{\frac{P_y}{P_x}} - 1 \right) \times 100$$

P_y = population in year y

P_x = population in year x

2 Unit:

Percentage

3 Methodological description:

A coastal region is an administrative region around the Mediterranean outline, equivalent to level 3 of the Statistical Territorial Unit Nomenclature (NUTS 3), such as for example French départements, wilayas in Algeria and provinces in Italy.

The national coastal region is made up of the aggregation of these administrative areas around the Mediterranean outline.

Only the Mediterranean outline is concerned, and it is proposed that 3 geographical levels be used to calculate the indicator:

1. The Mediterranean national coastal region (aggregation of the coastal regions around the Mediterranean outline) considered here as the national level.
2. Mediterranean coastal region (each NUTS 3 around the Mediterranean outline).
3. A smaller littoral zone (NUTS 5 or strip of 10-20 km) to be defined later.

4 Data sources identified and possible:

World Population Prospects: the 1998 revision, United Nations.

Geopolis database: The "Geopolis" database uses an urban area definition that equates to an agglomeration of more 10 000 inhabitants.

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	YES	YES	-

31- POPULATION DENSITY IN COASTAL REGIONS		
CHAPTER 2 LANDS AND AREAS	THEME 4 LITTORAL AND "LITTORALISATION"	CATEGORY E

1 Definition:

This is defined as the proportion of the permanent population of the Mediterranean coastal region over its area.

2 Unit:

Inhabitants / km²

3 Methodological description:

The national coastal area is made up of all coastal administrative regions along the Mediterranean outline, equivalent to level 3 of the Statistical Territorial Unit Nomenclature (NUTS 3), such as for example, French départements, wilayas in Algeria and provinces in Italy.

4 Data sources identified and possible:

Population census.

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	YES	YES	-

32- COASTLINE EROSION		
CHAPTER 2 LANDS AND AREAS	THEME 4 LITTORAL AND "LITTORALISATION"	CATEGORY E

1 Definition:

This indicator is defined by the proportion of the coastline subject to erosion processes, regardless of whether naturally caused, expressed as a percentage of the total coastline.

2 Unit:

Percentage

3 Methodological description:

Erosion is a natural phenomenon, which affects part of the shores along the Mediterranean with variable intensity. The main vectors of erosion are seawater, wave energy and marine currents. Effects vary according to the nature (rocky or sandy) of the coast. Erosion results in the withdrawal of a shoreline in a local area; but the phenomenon can be more marked in highly developed deltas or estuaries of major rivers. Calculation of the indicator depends on the resources available in each country: air or traditional cartography, Geographic Information System, etc. It also depends on available items for tracking coastline variation history.

4 Data sources identified and possible:

Territorial administrations.

Ministries for the Equipment and physical planning.

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	-	-	-

33- PROTECTED COASTAL AREA		
CHAPTER 2 LANDS AND AREAS	THEME 4 LITTORAL AND "LITTORALISATION"	CATEGORY R

1 Definition:

This indicator is set for a given year by the total area of protected zones, which are coastal as a whole in part, that is to say that they contain within their bounds coastal eco-systems (continental and/or marine). It is the total area of the protected area that is taken into account even though the coastal portion often only makes up a small proportion overall.

2 Unit:

Hectares

3 Methodological description:

Each country has its own legislation on the conservation of natural space and heritage. In order for these to be represented on a comparable basis, protected areas are grouped by the International Union for Conservation of Nature and Natural Resources (IUCN) classes.

The International Union for the Conservation of Nature and Natural Resources (IUCN) has specified six classes of protected areas in two groupings:

- Totally protected areas which are kept in a natural state and which are closed to extractive uses: Nature Reserves/Wild Areas (I), National Parks (II), and Natural Monuments (III).
- Partially protected areas are developed for special uses such as leisure in order to ensure optimal living conditions for certain species or ecological communities: species habitats/managed areas (IV), protected land and seascapes (V) and resource management protected areas (VI).

Those that border a coastline, even partially, are then set out from all the protected areas. The total area of the protected area is then assigned to the indicator, which will total all these areas at national level.

4 Data sources identified and possible:

World Conservation Monitoring Centre (WCMC)

Regional Activity Centre / Specially Protected Areas (RAC/SPA).

5 Indicator geographical coverage

Because of his definition, the indicator has the same values at coastal strip and coastal region geographical coverage.

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	YES	YES	-

34- OIL TANKER TRAFFIC		
CHAPTER 2 LANDS AND AREAS	THEME 5 SEA	CATEGORY P

1 Definition:

This indicator is defined as:

- i) The number of oil tankers out of the total number of cargo vessels entering in commercial harbours or into any port facilities that can accommodate oil tankers, and
- ii) Annual quantity of oil products unloaded from these tankers in the harbours.

2 Unit:

Number/year and thousands tons/year

3 Methodological description:

Oil tankers are ships for transporting oil products and their by-products. There is no restriction on the size of ship or on the volume carried; all ships that can carry a little or large quantity of these products in their holds should be taken into account.

At this time countries could take the opportunity to state the list of port facilities that can accommodate ships transporting oil products.

Data should be supplied on an annual basis. In the absence of the number of ships per annum, the quantities of oil products and by-products unloaded may suffice.

It is suggested that this indicator should also be supplied for Mediterranean ports.

Note: an indicator of oil tankers transit on the Mediterranean level will supplement this indicator.

4 Data sources identified and possible:

REMPEC

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
YES	YES	-	-	-

35- GLOBAL QUALITY OF COASTAL WATERS		
CHAPTER 2 LANDS AND AREAS	THEME 5 SEA	CATEGORY E

1 Definition:

This indicator has the purpose of describing the quality of coastal waters in accordance with three variables:

- i) The bacteriological quality of seawater,
- ii) The concentration of pollutants in the seawater and in sediment, and
- iii) The concentration of pollutants in living matter.

2 Unit:

Quality classes and quantity/volume

3 Methodological description:

The suggested approach is based on the Eurostat/OECD questionnaire on the Environment.

Coastal water: They are delimited, shore side, by the limit reached at the time of high waters (strong tide); the estuaries are regarded as forming part of the marine environment. Open seaside, the limit suggested is that of territorial waters (12 miles).

The questionnaire proposes to cut out the coast in representative "coastal zones" for which will be calculated the indicator (cf. geographical field of the study, questionnaire).

The bacteriological quality of seawater relates to concentrations measurements of fecal coliformes. It is table 5, marine Environment.

The pollutants measured in the sediments and sea water are heavy metals, organochlorinated compounds (PCB, DDT, etc), and hydrocarbons. Some mineral parameters are also followed (total Phosphorus, Nitrogen total) as well as chlorophyll a. It is table 6, marine Environment.

The pollutants measured in the alive beings are heavy metals, the organochlorinated compounds (PCB, DDT, etc), and of hydrocarbons. Five animal phyla are concerned: molluscs, fish, arthropods (crustacean), birds and mammals. It is table 7, marine environment.

4 Data sources identified and possible:

Ministry for the Environment

Institute or national agency for marine monitoring

The items necessary to the indicator calculation are contained at least partially in the Eurostat/OECD questionnaire on the Environment, which can provide methodological complements. These items of calculation will be partly gathered during the MEDSTAT Environment project (12 Mediterranean countries, 1999-2002).

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	-	YES	YES

36- DENSITY OF THE SOLID WASTE DISPOSED IN THE SEA		
CHAPTER 2 LANDS AND AREAS	THEME 5 SEA	CATEGORY E

1 Definition:

This indicator is defined as the number of items of solid waste dumped per km² of seabed.

2 Unit:

Number per km²

3 Methodological description:

This involves assessing the number of items of solid waste or debris dumped on the seabed. The following may be distinguished:

- The density of solid waste on the continental shelf (at between 0 and 200 m deep)
- The density on the bottom of the continental slope (at between 200 and 1000 m deep)
- The density on the bottom at 1000 to 2000 m deep.

Solid waste listed is classed into the following categories:

- Plastics (bags, bottles)
- Glass items (bottles, flasks)
- Metal objects (tins...)
- Cloth, leather or rubber items
- Other items.

Data collection depends on campaigns for counting by sampling using trawling techniques (beam trawlers or otter trawlers) from research vessels or by observation during dives by submarines, based on these same ships.

Such campaigns have already been applied in the Gulf of Lions by the French Institute for Marine Research and Management (IFREMER) in the context of a study of large waste in the marine environment that combines various observation techniques in accordance with an approved approach ([www. ifremer.fr](http://www.ifremer.fr)).

Such campaigns allow maps to be drawn up (isoconcentration) showing the density of submerged solid waste, and when repeated over time, to monitor their changes; they also allow determining the make-up of submerged solid waste, indirectly identifying the sources of emissions and of the influence of hydro-dynamic or geo-morphological factors on their spread over the bottom (for example, concentrations in coastal canyons).

However, they require major physical resources before being able to become widespread across all Mediterranean seabed.

The indicator does not measure waste on beaches (which can also be listed, more easily, using land based sampling on test sites) nor waste floating on the surface of the sea.

4 Data sources identified and possible:

MEDPOL.

Marine research centres.

IFREMER (www.ifremer.fr)

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
YES	YES	-	-	-

37- COASTAL WATERS QUALITY IN SOME MAIN "HOT SPOTS"		
CHAPTER 2 LANDS AND AREAS	THEME 5 SEA	CATEGORY E

1 Definition:

This indicator shows the distribution of "hot spots", identified in the country during the cross-border diagnostic study by the Mediterranean Action Plan (ref. MAP/TRS/124), in each of the six quality classes suggested in this study.

2 Unit:

Number per classes

3 Methodological description:

In the context of devising the Strategic Action Program for the Mediterranean, under the heading of monitoring the Protocol relating to the protection of the Mediterranean sea against pollution deriving from sources and activities located inland, a report (MAP/TRS/124) led to the identification by the countries of 101 "hot spots". The number of suggested "hot spots" related to: a) coastal towns and agglomerations that have a very large number of inhabitants (more than 100,000, also taking account of the size of the country involved); and b) the main industrial facilities that carry out direct discharges into the Mediterranean.

The approach suggested in that report has been restated for this indicator:

- Definition of "hot spots": (a) Particular sources along the Mediterranean coastline that are liable to have a powerful impact on human health, on eco-systems, on biodiversity, on sustainability or on the economy. These are the main points where high levels of pollution deriving from industrial or domestic sources are discharged; (b) precise coastal areas where the coastal marine environment is subjected to pollution deriving from one or more particular sources, or spread along the Mediterranean coastline liable to powerfully impact human health, eco-systems, biodiversity, sustainability or the economy.
- The main criteria for defining the measured "hot spots" are: BOD, COD, nutrients (phosphorus, nitrogen), total suspended solids (TSS), oil hydrocarbons, heavy metals, persistent organic pollutants (POP), radioactive substances (as appropriate) detritus, and micro organisms (faecal coliform bacteria, E. coli).
- These criteria are used in weighting the "hot spots" according to six impact parameters: 1) public health, 2) the quality of drinking water, 3) leisure, 4) aquatic flora and 5) fauna (including biodiversity), in addition to 6) socio-economic conditions (including marine resources of economic value). All these impacts are totalled to form a total weighted impact.
- In the context of the report, the "hot spots" at overall Mediterranean level, were sorted in decreasing order and broken down into six classes. Here each country is asked to do the same thing each year for the "hot spots" which affect it. Thus the evolution of this distribution over time will permit to measure possible progress accomplished. The approach components are not all presented here. For detailed information, please refer to the report MAP/TRS/124. The latter can be accessed on the MAP Internet site (<http://www.unepmap.gr/>).

4 Data sources identified and possible:

MEDPOL.

National agency.

Mediterranean Action Plan

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	-	-	-

38- QUALITY OF BIOPHYSICAL MILIEU		
CHAPTER 2 LANDS AND AREAS	THEME 5 SEA	CATEGORY E

1 Definition:

This indicator is defined by two sub-indicators:

- i) The ratio of the marine phanerogamous meadows area out of the total area of the infra-coastal area (0-50 m) and,
- ii) The proportionate part occupied by *Posidonia oceanica* out of the total area of water plant communities.

2 Unit:

Percentage

3 Methodological description:

The phanerogamous plants involved, which indicate the quality of the environment and are a major biological heritage for the balance at shallow Mediterranean bottoms, are: *Posidonia sp.*, *Cymodocea sp.*, *Zostera sp.* and *Halophila sp.*

The indicator is made up by assessing the area covered by the various phanerogamous meadows. Periodic returns every 5 or 10 years allow the measurement of the expansion or contraction of these sea grass colonies in accordance with a reliable and renewable approach.

Recent techniques have allowed the mapping of coastal sea bottoms up to a depth of 50 m in certain Mediterranean areas.

- From -1 to about -15 m: by the use of air photography checked by an autonomous diving apparatus.
- Up to -50 m: by using an ocean station vessel towing a side-scan sonar, which gives an "acoustic" continuous image of the sea bottom, coupled to a bathymetric depth-finder, which allow a profile of the sea-bottom vertically below the vessel to be drawn up.

However, the extension of these mapping techniques to the whole of the Mediterranean, which would allow an instant status report on the extent of phanerogamous meadows, has never been carried out to date and would require very major financial resources.

4 Data sources identified and possible:

Regional Activity Centre / Specially Protected Areas (RAC/SPA).

Universities, national institutes.

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	-	-	-

39- PROTECTION OF SPECIFIC ECOSYSTEMS		
CHAPTER 2 LANDS AND AREAS	THEME 5 SEA	CATEGORY R

1 Definition:

This indicator is defined by two sub-indicators:

- i) The area of protected zones which involves marine environments
- ii) The number of protected marine "sensitive areas".

2 Unit:

Area and number

3 Methodological description:

The International Union for the Conservation of Nature (IUCN) defines six classes of protected area in two groups:

- Totally protected areas which are maintained in a natural state and are forbidden to extractive uses: Natural or Scientific Reserves (I), National Parks (II), Natural Monuments (III)
- The partially protected areas are arranged for particular uses as the leisure in order to ensure of the optimal living conditions for certain species or ecological communities: Habitat or Species Management Reserves (IV), Protected Land or Seascapes (V) and Managed Protected Natural Resource Areas (VI).

Some of the protected areas in the IUCN nomenclature are also Specially Protected Areas of Mediterranean Importance (SPAMI). These are sites that present certain regional value (presence of rare or unique eco-systems, endemic or threatened species, etc.) and which are supplied with an effective management body.

The "sensitive areas" are coastal and estuarian water with natural or socio-economic value which are regarded as sensitive if they are exposed at the higher risk to undergo harmful impacts due to human activities. The natural characteristics can condition the vulnerability of a coastal system, for example a bay having a low rate of water renewal/circulation is more sensitive to pollution impacts than a bay where this rate is satisfactory. The human activities condition the level of risk, and a planned development can increase the risk of environmental pollution. Vulnerability and risk contribute one and the other to the "sensitivity" of an area or a system determined within the framework of this evaluation (report MAP/TRS/124).

4 Data sources identified and possible:

Ministry for the Environment

RAC/SPA in Tunis

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	-	-	-

40- EXISTENCE OF MONITORING PROGRAMS CONCERNING POLLUTANT INPUTS		
CHAPTER 2 LANDS AND AREAS	THEME 5 SEA	CATEGORY R

1 Definition:

This indicator is defined by the existence or otherwise of a national programme for the operational monitoring of the country, in the context of the application of the Strategic Action Plan (SAP).

2 Unit:

Yes / No

3 Methodological description:

The Strategic Action Plan (SAP) aims to improve the quality of the marine environment by better shared management of telluric-originated pollution. SAP also aims to facilitate the application of the "telluric" protocol made by the Contracting Parties to the Barcelona Convention.

Monitoring programme: this is a continuous monitoring programme of priority pollutants contributions, such as those defined in the SAP, and monitoring the quality of the marine environment.

For now, this has to do with answering whether or not such a national monitoring programme exists.

A specific study remains necessary for defining the common assessment criteria to apply to each national monitoring programme that will allow a better assessment of their operational character.

The criteria should be technical in nature (pollutants and validity measuring compartments / comparability of results), legal (existing regulations or otherwise) and institutional (application and control capability).

4 Data sources identified and possible:

Ministry for the Environment

MAP (<http://www.unepmap.gr/>).

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	-	-	-

41- WASTEWATER TREATMENT RATE BEFORE SEA RELEASE FOR COASTAL AGGLOMERATIONS OVER 100 000 INHABITANTS		
CHAPTER 2 LANDS AND AREAS	THEME 5 SEA	CATEGORY R

1 Definition:

This is the proportion of wastewater produced by coastal agglomerations of more than 100 000 inhabitants that have been treated enough to allow discharge into the environment without resulting in an impact neither on human health nor on ecosystems.

2 Unit:

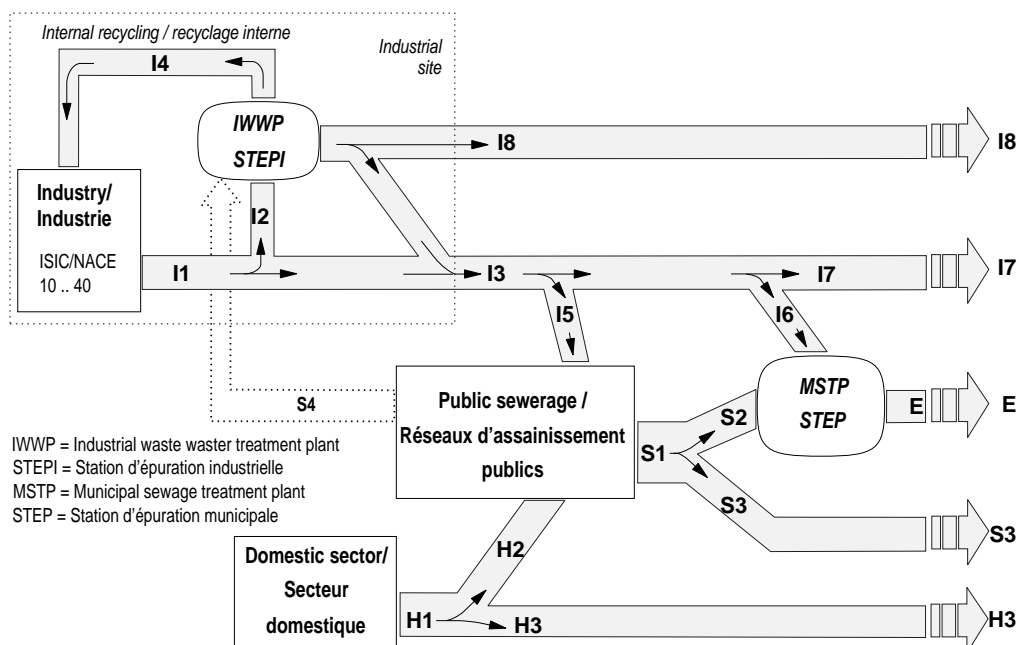
Percentage

3 Methodological description:

Coastal agglomerations are the agglomerations of more than 100000 inhabitants, which are located along the sea coast.

The indicator is built up in a similar way to indicator n°91. It measures the relationship between the volumes of wastewater produced and that of those that are subject to adequate treatment by the public sanitation system (on the basis that independent domestic systems are either negligible, or of an efficiency level which is difficult to check).

Refer to the diagram (OECD-Eurostat questionnaire, 1998, Inland Waters, Tab 7,1A) for help in understanding the indicator.



The total volume of wastewater produced by coastal agglomerations is equal to the volume produced by the domestic sector in those agglomerations (H1) to which the volume (I3) produced by coastal industry and not treated directly on site (listed additionally in indicator n°91) is added.

The volume of treated wastewater (S2+I6) is the volume of water collected that is conveyed to places where it is treated (excluding treatment on industrial sites).

The indicator represents the ratio: $(S2+I6)/(H1+I3)$.

It can be built up in two stages, whilst giving the same result, by multiplying the two following sub-indicators:

- i) The proportion of waste water produced by coastal agglomerations (and industrial waste water untreated on site) which is collected by the public networks $(H2+I5)/(H1+I3)$ and
- ii) The proportion of that collected wastewater which is connected to a treatment plant $(S2+I6)/(H2+I5)$.

Strictly speaking, the indicator should be weighted for yields R_i of the various treatment plants i , in order to actually measure the percentage of domestic wastewater (and industrial waste water connected to the domestic network) that is subject to adequate processing to allow discharge into the environment without generating environmental impacts.

The notion of treatment brings together a wide range of processes, which allow more or less sanitation (mechanical, biological and biochemical processes).

4 Data sources identified and possible:

National water companies and services of public utility

Authorities responsible for hydrological basin

Municipal authorities

The items necessary to the indicator calculation are contained at least partially in the Eurostat/OECD questionnaire on the Environment, which can provide methodological complements. These items of calculation will be partly gathered during the MEDSTAT Environment project (12 Mediterranean countries, 1999-2002).

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	-	-	YES

42- HARBOUR EQUIPMENT RATIO IN UNBALLASTING FACILITIES		
CHAPTER 2 LANDS AND AREAS	THEME 5 SEA	CATEGORY R

1 Definition:

This indicator is defined by the ratio of the number of deballasting stations for cargo vessels to the number of commercial harbours for a given period.

2 Unit:

Percentage

3 Methodological description:

Cargo vessels are ships designed for transporting goods (combustibles, manufactured goods, foodstuffs, etc.).

Each country should state the number of commercial harbours, the number of deballasting stations and the ratio as stated in the definition.

4 Data sources identified and possible:

Harbour administration.

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	-	-	-

43- DISTRIBUTION OF GDP (AGRICULTURE, INDUSTRY, SERVICES)		
CHAPTER 3	THEME 1	CATEGORY
ECONOMIC ACTIVITIES AND SUSTAINABILITY	GLOBAL ECONOMY	P

1 Definition:

This indicator shows the contribution by each business sector to the Gross Domestic Product.

2 Unit:

Percentage

3 Methodological description:

GDP is an aggregate in national income accounting that supplies a measurement of the added value generated by income earning activity in the economy within a country.

Added value is the net production in a sector after having totalled all production and subtracted intermediate consumption.

- Added value in agriculture measures production from the farming sector (ISIC divisions 1-5) less the value of intermediate entries. Agriculture covers the added value from farming proper and forestry, hunting and fishing.
- Industry corresponds to ISIC divisions 10-45 and includes production from manufacturing (ISIC divisions 15-37). It includes the added values from mining industries, the manufacturing sector, the building industry, electricity water and gas.
- Services correspond to ISIC divisions 50-99. These include added value from wholesale and retail trade (including hotels and restaurants), transport, and public services (financial, professional and personal) such as education, health and housing. The costs of bank services, entry fees, and all statistical anomalies noted by national compilers in addition to the anomalies due to re-scaling are included.

4 Data sources identified and possible:

Data on the national accounts of the World Bank, and the data files on the national accounts of OECD. The data are expressed in current US dollars.

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	-	-	-

44- FOREIGN DIRECT INVESTMENT		
CHAPTER 3 ECONOMIC ACTIVITIES AND SUSTAINABILITY	THEME 1 GLOBAL ECONOMY	CATEGORY P

1 Definition:

Foreign Direct Investment (FDI) are the net investments made with a view to acquiring a perennial interest (usually 10% or more of shares with voting rights) in a company operating in a country other than that where the investor comes from (residence criterion).

2 Unit:

Current US Dollars

3 Methodological description:

FDIs are calculated by totalling the capital in own shares, reinvested income, with all other long-term capital and short-term capital.

4 Data sources identified and possible:

International Monetary Fund, Statistical Yearbooks of the Balance of Payments

The World Bank, Financing of the World Development 1998 and World Development Indicators 1999.

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	-	-	-

45- EXTERNAL DEBT / GDP		
CHAPTER 3 ECONOMIC ACTIVITIES AND SUSTAINABILITY	THEME 1 GLOBAL ECONOMY	CATEGORY E

1 Definition:

This is the ratio of total external debt to gross national product (GDP).

2 Unit:

Percentage

3 Methodological description:

Total external debt stock is defined as the sum of long-term external debt, the use of International Monetary Fund (IMF) credit, and short-term external debt:

- i) Long-term external debt has three components:
 - Public Debt, which is foreign undertaking by a public debtor, including the State;
 - Publicly Guaranteed Debt, which is a foreign undertaking by a private debtor whose repayment is guaranteed by a public body;
 - Private Unguaranteed Debt, which is a foreign undertaking by a private debtor whose repayment is not guaranteed by a public body.
- ii) The use of IMF Loans implies repurchase of undertakings to the IMF with respect to all uses of IMF funds, excluding those resulting from drawings from reserve slices. The use of IMF loans includes purchases under loan slices, including access to greater resources and all special facilities (buffer stock financing mechanism, the compensatory financing system, the extended mechanism, and oil mechanism), special allocation loans, and operations under the structural adjustment and enhanced structural adjustment facilities.
- iii) Short-term external Debt is defined as debt that has an initial term of one year or less. It includes interest in arrears on long-term debt.

The GDP is an aggregate of the National account providing a measurement of the added value created by the productive activities of the economy inside the country.

4 Data sources identified and possible:

OECD and World Bank National Accounts. The more developed countries are generally excluded from World Bank data tables on debt.

Ministry of Economy.

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	-	-	-

46- SAVING / INVESTMENT		
CHAPTER 3 ECONOMIC ACTIVITIES AND SUSTAINABILITY	THEME 1 GLOBAL ECONOMY	CATEGORY E

1 Definition:

This indicator is defined as the ratio of gross national savings to gross national investment.

2 Unit:

Percentage

3 Methodological description:

Gross national savings is the difference between the Gross National Product (GNP) and total domestic consumption (private plus public sectors).

Gross domestic investment is made up of expenditure related to economy fixed capital increase to which net variations in stock levels are added.

Fixed capital expenditure includes land improvements (enclosures, ditches, drainage and so forth); factories, machinery and equipment purchases, and the building of road, railways and the like, including retail and industrial buildings, offices, schools, hospitals and private residential dwellings.

4 Data sources identified and possible:

World Bank.

Ministry for the Economy

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	-	-	-

47- PUBLIC DEFICIT / GDP		
CHAPTER 3 ECONOMIC ACTIVITIES AND SUSTAINABILITY	THEME 1 GLOBAL ECONOMY	CATEGORY E

1 Definition:

This is the national debt for the central government of a country compared annually to Gross Domestic Product (GDP).

2 Unit:

Percentage

3 Methodological description:

The national debt arises from the difference between; on the one hand, current account income (taxes, duties, and levies), capital account income, and public grants received and, on the other hand, total expenditure and loans less repayments.

GDP is an aggregate of National Income Accounting, providing a measurement of the added value created by income earning activity in the economy within a country.

4 Data sources identified and possible:

International Monetary Fund, Government Finance Statistics Yearbooks, and GDP estimate (OECD, World Bank) in World Development Indicators 1999.

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	-	-	-

48- CURRENT PAYMENTS / GDP		
CHAPTER 3	THEME 1	CATEGORY
ECONOMIC ACTIVITIES AND SUSTAINABILITY	GLOBAL ECONOMY	E

1 Definition:

This is the balance of current account payments in a country compared each year with its gross national product (GDP).

2 Unit:

Percentage

3 Methodological description:

The current account balance of payments is usually defined as a statement of the international economic transactions in an economy. It is made up of i) The balance of the exports and imports of goods and services, ii) Net income, and iii) Net current account transfers. The balance can be in credit (surplus) or debit (shortfall).

- i) The balance of the exports and imports of goods and services arises from the difference between exports and imports.
- ii) Net income refers to investments (income or payments on direct investments, portfolio investments, credit reserves) and to remuneration paid to non-resident workers.
- iii) Net current account transfers are accounted for in the balance of current account payments each time an economy receives or supplies goods, services, income or financial instruments. GDP is an aggregate of National Income Accounting, providing a measurement of the added value created by income earning activity in the economy within a country.

4 Data sources identified and possible:

International Monetary Fund, Statistics Yearbook of current payment, and GDP estimate (OECD, World Bank) in World Development Indicators 1999.

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	-	-	-

49- EMPLOYMENT DISTRIBUTION (AGRICULTURE, INDUSTRY, SERVICES)		
CHAPTER 3	THEME 1	CATEGORY
ECONOMIC ACTIVITIES AND SUSTAINABILITY	GLOBAL ECONOMY	E

1 Definition:

This indicator represents the respective proportion of the active population in each of three major economic sectors: Farming, Industry and Services, out of the total active population.

The proportion for tourism within services is also desirable but remains difficult to pick out.

2 Unit

Respective percentage of the three sectors

3 Methodological description:

Employment in agriculture measures the active population in the farming sector (ISIC divisions 1-5). Agriculture covers the added value from farming proper, and from forestry, hunting and fishing.

Industry equates to ISIC divisions 10-45 and includes manufacturing industry (ISIC divisions 15-37). It includes extraction industries, those in the manufacturing sector, building sector, electricity, water and gas supplies.

Services equate to ISIC divisions 50-99. They include wholesale and retail sales (including hotels and restaurants), transport, and public services such as education, health and accommodation.

It would be useful to state the number of jobs directly connected with tourism.

4 Data sources identified and possible:

World Development Indicators 1999, World Bank

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	-	-	-

50- USE OF AGRICULTURAL PESTICIDES		
CHAPTER 3 ECONOMIC ACTIVITIES AND SUSTAINABILITY	THEME 2 AGRICULTURE	CATEGORY P

1 Definition:

This indicator measures the use of pesticide per unit of agricultural land.

2 Unit

Tons of active ingredients per thousand hectares.

3 Methodological description:

It is difficult to obtain national or sub-national values on the quantities of pesticides really used per ha of agricultural land. To evaluate them, the national apparent consumption of pesticide is estimated, as the production + importation - export - (+/-) stocks changes. At the sub national level, this formula is less reliable and it will be necessary to supplement it with user surveys.

There are four groups of pesticides: insecticides, fungicides, herbicides and the others. They are expressed in quantities of active ingredients.

The total area of the agricultural lands is defined by the sum of the "arable lands" and the "permanent crops" (meaning of FAO). Report to indicator n°51 for more definition.

The cropping period (from seed to harvest) is used as temporal reference to estimate the consumption of pesticide.

The indicator will be given for the four pesticide classes and for their totals.

4 Data sources identified and possible:

FAO on-line database, 1999: [http : // www .fao. org/ waicent/faostat/](http://www.fao.org/waicent/faostat/).

FAO Statistical Yearbook.

Ministry of Agriculture.

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	YES	-	-

51- USE OF FERTILISERS PER HECTARE OF AGRICULTURAL LAND		
CHAPTER 3	THEME 2	CATEGORY
ECONOMIC ACTIVITIES AND SUSTAINABILITY	AGRICULTURE	P

1 Definition:

The indicator is made up of two sub-indicators:

- The quantity of mineral nitrogen used per hectare of agricultural lands (temporary and permanent crops);
- The quantity of mineral phosphorus used per hectare of agricultural land (temporary and permanent crops).

To evaluate it, total annual fertilizer consumption is divided by the total agricultural land area.

Formulate for nitrogen and phosphorus:

$$\frac{\text{Total consumption of fertilizer (n)}}{\text{Agricultural land area (temporary and permanent crops)(n)}}$$

n = reference period (year).

2 Unit:

Kilograms N per hectare and Kilograms P per hectare.

3 Methodological description:

It is difficult to obtain national or sub-national values on the quantities of fertilizer really used per ha of agricultural land. To evaluate them, the national apparent consumption of fertilizer is estimated, like the production + importation - export - (+/-) stocks changes.

It is essential to convert the commercial quantities of fertilizer into N equivalent or P equivalent to take into account the variability in active ingredients from the various commercial fertilizers.

The indicator does not include the organic fertilizer (manure, liquid manure) which can constitute a significant proportion of fertilizer contribution but which are more difficult to quantify.

The cropping period (from seed to harvest) is used as temporal reference to estimate the consumption of fertilizer.

This "consumption" value is then divided separately for N and P by the total agricultural land area for the same period.

The total agricultural land area (permanent and temporary) is defined as the sum of the "arable lands" and the "permanent crops" (see FAO definition below).

The definition of "arable land" (FAO) is: "land allocated to temporary crops (double-cropped areas are counted only once), temporary meadows for mowing or grazing, market gardening land and land temporarily fallow (less than five years)".

"Permanent crops" (FAO) are "land given over to crops that occupy the ground for long periods and need not be replanted after each harvest (vines, fruit trees...)".

4 Data sources identified and possible:

FAO on-line database, 1999: [http : // www .fao. org/ waicent/faostat/](http://www.fao.org/waicent/faostat/).

FAO Statistical Yearbook.

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	YES	-	-

52- SHARE OF IRRIGATED AGRICULTURAL LAND		
CHAPTER 3	THEME 2	CATEGORY
ECONOMIC ACTIVITIES AND SUSTAINABILITY	AGRICULTURE	P

1 Definition:

This is land area under irrigation (I) as a percentage of total agricultural land area (A).

Formula : $(I / A) \times 100$

I: The irrigated areas are "areas fitted to provide crops with water. This includes zones equipped for a complete or partial irrigation control, areas irrigated by flooding, equipped wetlands" (FAO).

A: The total area of the agricultural land (permanent and temporary) is defined by the sum of "arable land" and "permanent crops" (as defined by the FAO).

2 Unit:

Percentage.

3 Methodological description:

The definition of "arable land" (FAO) is: "land allocated to temporary crops (double-cropped areas are counted only once), temporary meadows for mowing or grazing, market gardening land and land temporarily fallow (less than five years)".

"Permanent crops" (FAO) are "land given over to crops that occupy the ground for long periods and need not be replanted after each harvest (vines, fruit trees...)".

Some countries irrigate their permanent crops and others may include permanent crops as cultivated land. In order to facilitate comparisons "permanent crop" areas are added to "arable land" areas to get the total area of agricultural land.

4 Data sources identified and possible:

FAO on-line database, 1999: [http : // www .fao. org/ waicent/faostat/](http://www.fao.org/waicent/faostat/).

FAO Statistical Yearbook.

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	YES	-	-

53- AGRICULTURE WATER DEMAND PER IRRIGATED AREA		
CHAPTER 3 ECONOMIC ACTIVITIES AND SUSTAINABILITY	THEME 2 AGRICULTURE	CATEGORY P

1 Definition:

This indicator is defined by the ratio of irrigation water consumption (withdrawals) to the irrigated area in a country.

2 Unit:

m³ / year / ha

3 Methodological description:

Water withdrawn for irrigation corresponds to the water withdrawn from surface or underground sources and conveyed to its place of use. Losses during transport must be included in withdrawals. It is possible for water returning to surface waters to be withdrawn anew by a downstream user, and it is counted twice.

Irrigated areas are “areas equipped to provide water to the crops. These include areas equipped for full and partial controlled irrigation, spate irrigation areas, and fitted wetland or inland valley bottoms” (FAO definition)

4 Data sources identified and possible:

OECD compendium on Environment.

Ministries responsible of Agriculture and Environment.

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	YES	-	-

54- "ARABLE LAND" PER CAPITA		
CHAPTER 3 ECONOMIC ACTIVITIES AND SUSTAINABILITY	THEME 2 AGRICULTURE	CATEGORY E

1 Definition:

The indicator is calculated as the ratio of "Arable land" area to total population.

Formula: "Arable land" area_n / Total population_n

n = reference year

2 Unit:

hectare per inhabitant

3 Methodological description:

"Arable land" is land given over to temporary crops (double-cropped areas are counted only once), temporary meadows for mowing or grazing, land under market and kitchen gardens and land temporarily fallow (less than five years). The abandoned land resulting from shifting cultivation is not included.

The total population is the population resident of the country estimated at year n (cf. indicator n°1).

4 Data sources identified and possible:

FAO on-line database, 1999: <http://www.fao.org/waicent/faostat/>.

FAO Statistical Yearbook.

World Population Prospects: the 1998 revision, United Nations.

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	YES	-	-

55- RATE OF FOOD DEPENDENCE		
CHAPTER 3	THEME 2	CATEGORY
ECONOMIC ACTIVITIES AND SUSTAINABILITY	AGRICULTURE	E

1 Definition:

This is defined in relation to the amount of food products imported nationally over the amount consumed nationally for those same food products in the course of one year.

2 Unit:

Percentage

3 Methodological description:

Imports and consumption involve some basic farm food products, that is i) vegetable products: cereals (wheat, rice, barley, maize), starches (potatoes), sugar, fruit and vegetables, and ii) animal products: beef and veal, lamb and goat, pork, poultry and milk. Manufactured products or by-products are not taken into account: butter as milk for example.

Consumption corresponds to the amount produced to which the amount imported is added and from which the amount exported is subtracted. It is considered that for the period involved, one year, stock variations have little impact on consumption.

The ratio of imports over consumption is calculated using monetary amounts (sums) for foods in the country, for the period involved.

For all practical purposes, the corresponding product quantities can be expressed in tonnes.

4 Data sources identified and possible:

United Nations - FAO

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	-	-	-

56- ANNUAL AVERAGE OF WHEAT YIELD		
CHAPTER 3 ECONOMIC ACTIVITIES AND SUSTAINABILITY	THEME 2 AGRICULTURE	CATEGORY E

1 Definition:

This is the average quantity of wheat harvested annually in a country and related to the area growing wheat during the same period.

2 Unit:

Kilogram per hectare.

3 Methodological description:

Common wheat (*Triticum aestivum*) and hard wheat (*T. durum*) are the main varieties.

Production data must relate solely to cereals harvested as dry grains.

4 Data sources identified and possible:

FAO on-line database, 1999: [http : // www .fao. org/ waicent/faostat/](http://www.fao.org/waicent/faostat/).

FAO Statistical Yearbook.

Ministry of Agriculture.

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	-	-	-

57- WATER USE EFFICIENCY FOR IRRIGATION		
CHAPTER 3 ECONOMIC ACTIVITIES AND SUSTAINABILITY	THEME 2 AGRICULTURE	CATEGORY R

1 Definition:

This is made up of two sub-indicators:

- E1: The physical efficiency of networks for carrying and distributing irrigation water, measured as the ratio between the volume of water actually distributed to the land plots and the total volume of water allotted to irrigation, upstream of the networks, including losses in the networks.
- E2: The efficiency of irrigation in each plot, calculated as the total of efficiency (by plot) of each irrigation method (surface irrigation, sprinkler irrigation, micro-irrigation, other approaches to controlling water), weighted by the relative proportions for each approach in the country.

The formula is:
$$\sum_{i=1}^n \frac{S_m}{S \times E_m}$$

n: number of irrigation methods used

S_m: area irrigated by this method: m

E_m: efficiency of the method: m

S: total area irrigated in the country for all methods.

2 Unit:

Percentage

3 Methodological description:

The efficiency of E1 irrigation networks can be estimated by management structures, when meters are available on the networks. This is specific to each network. It would nevertheless be possible to assess national average efficiency by making an average of efficiencies for each network, weighted for the volumes going through that network each year.

Average efficiency per plot E2 can be defined as the ratio between the quantities of water actually used by plants and the quantities of water brought to the plot.

This will vary according to the irrigation method, and on average will be:

- About 40 to 50% for gravity irrigation
- About 60% for sprinkler irrigation
- About 90% for micro-irrigation

Other methods of irrigation can be:

- Areas irrigated by flooding (ha and %)
- Controlled marshes and shallows (ha and %)
- Other farmed marshes and shallows (ha and %)
- Fall-farmed areas (ha).

Their efficiency is close to that of gravity irrigation.

Bearing in mind the very high number of plots, E2 has to be estimated. Each country has its own estimates of the average efficiency of the various systems, based on

experimental testing sites. In this way, the value of E2 shall reflect more the structure of the breakdown of irrigation into the major approaches at national level.

4 Data sources identified and possible:

United Nations, FAO.

Ministries for Agriculture or Environment.

The items necessary to the indicator calculation are contained at least partially in the Eurostat/OECD questionnaire on the Environment, which can provide methodological complements. These items of calculation will be partly gathered during the MEDSTAT Environment project (12 Mediterranean countries, 1999-2002).

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	-	-	-

58- VALUE OF HALIEUTIC CATCHES AT CONSTANT PRICES		
CHAPTER 3	THEME 3	CATEGORY
ECONOMIC ACTIVITIES AND SUSTAINABILITY	FISHERIES, AQUACULTURE	P

1 Definition:

This value is defined as the total annual value of sea fish catches.

2 Unit:

US Dollars

3 Methodological description:

The total annual value of the fish catches results from summing up the total annual value of the catches of each fish species.

The total annual value of the catch of each species arises from multiplying the annual production (in tonnes) by its average annual value per unit of weight (tonnes) in the country.

Data relating to production (catch) is expressed as live weight (tonnes) that is the weight of fish at the time of its fishing.

Marine fish species taken into account are Demersal Sea Fish (Flounder, Cod, Scorpion Fish, Shark, etc. and Pelagic Sea Fish (Carp, Herring, Tuna, Mackerel, etc).

Constant prices, expressed in constant US dollars, are prices adjusted for inflation and compared to a year of reference.

4 Data sources identified and possible:

Fisheries Department of the FAO.

Ministry for Fisheries.

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	-	-	-

59- NUMBER AND AVERAGE POWER OF FISHING BOATS		
CHAPTER 3 ECONOMIC ACTIVITIES AND SUSTAINABILITY	THEME 3 FISHERIES, AQUACULTURE	CATEGORY P

1 Definition:

These indicators respectively reflect the number and average power of fishing boats registered in a county and broken down by year.

2 Unit:

Number and horsepower/boat/year.

3 Methodological description:

The number of fishing boats corresponds to the total number of "Fishing vessels" broken down by the International Fishing Boat Statistical Classification (CSIBTP).

"Fishing vessels" includes Trawlers, Seiners with purse seines and Other Seiners, in addition to Trammelers, Boats for traps, Lining vessels, Other Lining boats, Multi-purpose boats and Other fishing boats.

Average power corresponds to the total power of boat engines, expressed in steam horsepower, divided by the number of boats.

4 Data sources identified and possible:

United Nations - Food and Agriculture Organization "Table D - Number of boats and total power " in statistical Bulletin of fisheries n°35, Statistics of the fishery fleets, 1998.

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	-	-	-

60- FISHING PRODUCTION PER BROAD SPECIES GROUPS		
CHAPTER 3 ECONOMIC ACTIVITIES AND SUSTAINABILITY	THEME 3 FISHERIES, AQUACULTURE	CATEGORY E

1 Definition:

These are the quantities of sea fish caught each year that live in the open water (pelagic) or close to the bottom (demersal) in the Mediterranean sea.

2 Unit:

Tons / year.

3 Methodological description:

Data relating to production (catch) is expressed as live weight that is the weight of fish at the time of the catch (FAO). The FAO sets out fishing statistics on sea fish in three classes:

- 1) Pelagic sea fish, which include: Carp, Herring, Tuna, Mackerel, etc.,
- 2) Demersal sea fish which include: Flounder, Cod, Rockfish, Sharks, etc.,
- 3) Other unspecified fish.

4 Data sources identified and possible:

FAO on-line database, 1999: <http://apps.fao.org>.

FAO Statistical Yearbook.

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	-	-	-

61- PRODUCTION OF AQUACULTURE		
CHAPTER 3 ECONOMIC ACTIVITIES AND SUSTAINABILITY	THEME 3 FISHERIES, AQUACULTURE	CATEGORY E

1 Definition:

This is the quantity of sea fish produced by fish farming companies set up in the country, whether they are based in the Mediterranean or on other seas.

It is suggested that the indicator be supplied for all national production and for production solely in the Mediterranean.

2 Unit:

Tons / year.

3 Methodological description:

Aquaculture brings together all the techniques for farming aquatic life (animal and plant life). In the context of this indicator only production arising from marine fish farming is taken into account. Marine refers to seawaters and brackish waters.

Data relating to production is expressed as live weight, at the time of leaving the water.

Note: It should be recalled that in the context of its publications, the FAO breaks down its statistics on sea fish into three main classes:

- 1) Pelagic sea fish, which includes: Carp, Herring, Tuna, Mackerel, etc.
- 2) Demersal sea fish which include: Flounder, Cod, Rockfish, Sharks, etc
- 3) Other unspecified fish.

In the context of this indicator, no distinction between fish shall be made.

4 Data sources identified and possible:

FAO on-line database, 1999: <http://apps.fao.org>.

FAO Statistical Yearbook.

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	YES	YES	-

62- PUBLIC EXPENDITURES ON FISH STOCKS MONITORING		
CHAPTER 3	THEME 3	CATEGORY
ECONOMIC ACTIVITIES AND SUSTAINABILITY	FISHERIES, AQUACULTURE	R

1 Definition:

This indicator is defined as the annual amount of public expenditure made to assess and monitor sea fish stocks.

2 Unit:

Current US Dollars.

3 Methodological description:

Expenditure includes measures for assessing and monitoring the state of sea fish stocks, such as public inventory campaigns that allow changes in population to be monitored over time.

They should be calculated for all public resources devoted to sea fish stocks assessment. Financial contributions to international stock assessment programmes should also be included.

Expenditures are flows of funds that reflect the total value of the capital good in the year of acquisition and must be clearly distinguished from the annual cost that take into account the lifetime of capital goods.

The net amount of expenditures = (Investment expenditure + Current expenditure + Subsidies to private sector) - (Receipts from by-products + Fees/charges from private sector) cf. indicator n°125 for precision on expenses.

- Investment expenditure: purchasing and improving durable assets (buildings, boats...).
- Current spending: refers to i) the production of services proper: processing, rental, wages, energy, maintenance costs and other intermediate consumables or ii) the purchase of goods and services on the market.
- Public subsidies: Financial transfers from the public sector to the private sector for fish stock monitoring purposes.
- Receipts from by-products: Where monitoring activity entails receipts from selling a by-product of this activity (e.g. data sale to a fishery organisation), these receipts should be deducted from gross expenditure incurred.
- Fees: Financial transfers from the private sector to the public sector. Only taxes, which are directly used for financing fish stock monitoring expenditure by the public sector are included.

Definition of the public sector: central and local administrations and local authorities; the public sector includes expenditure by government agencies and specialised public corporations financed and controlled by local authorities.

(Private sector expenditure is not considered here, because of the difficulty in assessing it).

4 Data sources identified and possible:

Fisheries Department of the FAO.

Ministry for Fisheries.

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	-	-	-

63- INDUSTRIAL RELEASES INTO WATER		
CHAPTER 3 ECONOMIC ACTIVITIES AND SUSTAINABILITY	THEME 4 MINES, INDUSTRY	CATEGORY P

1 Definition:

This indicator is defined as the daily quantity of pollutants contained in industrial (untreated) waste discharges into continental and coastal waters.

These pollutants involve the following main classes: Oxidable substances (MO), Suspended solids (MES), toxic substances, metals (Cadmium, Chromium, Mercury, Nickel, Lead, Titanium, Zinc), Nitrogenous Matter (MA), Phosphoric substances, and hydrocarbons.

2 Unit:

Tons / Day while distinguishing the CDO (chemical demand for oxygen), the BDO5, metals, nitrogenized and phosphorated matters.

3 Methodological description:

In order to take account of industry's highly irregular activity, discharges are estimated on the basis of a "normal" day in the month of maximum activity, rather than on an average day.

Discharges can be detailed by major industry classes as follows: (see OECD-Eurostat questionnaire, tab 7):

- Manufacturing industry total (including food industries, base metals, transport facilities, textiles, paper, chemical products and refined petroleum) (CITI 15-39)
- Electricity production and distribution (CITI 401)
- Construction (CITI 45)
- All other industrial activities (CITI 10-45).

4 Data sources identified and possible:

Ministries for Industry and Environment.

National Agencies, Water management administrations.

Statistical Organizations.

The items necessary to the indicator calculation are contained at least partially in the Eurostat/OECD questionnaire on the Environment, which can provide methodological complements. These items of calculation will be partly gathered during the MEDSTAT Environment project (12 Mediterranean countries, 1999-2002).

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	YES	YES	-

64- INTENSITY OF MATERIAL USE		
CHAPTER 3 ECONOMIC ACTIVITIES AND SUSTAINABILITY	THEME 4 MINES, INDUSTRY	CATEGORY E

1 Definition:

This indicator is defined as a country's total annual consumption of virgin metals (by volume) per unit of gross domestic product (GDP). It is calculated annually for five reference metals: aluminium, iron, copper, lead, and nickel.

2 Unit:

Tons per \$1 000 US.

3 Methodological description:

Virgin metals consumption in a country is equal to the production of this metal proceeded from ores to which the quantities resulting from the recovery of metal waste and the imports are added.

Consumption values are the adjusted by (i) changes in stocks of producers, traders and manufacturers, and (ii) the volume of material contained in net trade in metal-intensives semi-fabricates and manufactures. It is considered that the quantity of metal used in exported goods must be added to the exporting country's consumption.

Five of the most used metals will be selected (code ISIC rev 3): Aluminium (285), iron (281), copper (283), lead (2874), nickel (284).

The GDP is an aggregate of the National account providing a measurement of the added value created by the productive activities of the economy inside the country. In this indicator, the GDP is expressed in constant US dollars i.e. the GDP in current values adjusted by a deflator. It is suggested that the consumer price index be used as deflator.

4 Data sources identified and possible:

International Trade Statistical Yearbook, United Nations.

World Resources Institute, World Resources 1994-95, 1995.

National or international institutes on minerals and metals, company mines, governmental agency and statistical office.

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	-	-	-

65- NUMBER OF MINES AND CARRIES REHABILITATED AFTER EXPLOITATION		
CHAPTER 3 ECONOMIC ACTIVITIES AND SUSTAINABILITY	THEME 4 MINES, INDUSTRY	CATEGORY R

1 Definition:

This indicator is defined as the proportion of mines and quarries that have been subjected to reclamation or a rehabilitation project after they have been worked out.

2 Unit:

Percentage

3 Methodological description:

By rehabilitation, the depollution, as appropriate of the ground and underground layers of the site in accordance with national legal requirements in addition to work required to re-integrate the site into the natural landscape, or any final investment to enhance the site for recreational, scientific or nature conservation purposes.

The mines and quarries involved are those that arise from extraction businesses set out in ISIC version 3.

The reference period for the indicator is 1980 –2000 in five-year periods or less (1980-1985, etc).

4 Data sources identified and possible:

Ministries for Environment or Industry

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	-	-	-

66- TURNOVER DISTRIBUTION OF COMMERCE ACCORDING TO THE NUMBER OF EMPLOYEES		
CHAPTER 3	THEME 5	CATEGORY
ECONOMIC ACTIVITIES AND SUSTAINABILITY	SERVICES AND COMMERCE	E

1 Definition:

This indicator is defined as the respective proportions of the total annual turnover for trading companies by the main categories of staff.

2 Unit:

Percentage

3 Methodological description:

Several classes for staffing may be distinguished in trading companies: 1 to 4 staff, 5 to 20 staff, 21 to 100 staff and 100 and more staff.

For each staffing class, its percentage of the total annual turnover for trading companies should be stated.

Manpower	Nb of enterprise	Nb of jobs	Turnover	Business sector % of total annual turnover
1-4				
5-20				
21-100				
100+				

Trading companies are according to the European Community Business Nomenclature (NACE rev. 3):

50 Sale, maintenance and repair of motor vehicles and motorcycles; retail sale of automotive fuel
 501 Sale of motor vehicles
 502 Maintenance and repair of motor vehicles
 503 Sale of motor vehicle parts and accessories
 504 Sale, maintenance and repair of motorcycles and related parts and accessories
 505 Retail sale of automotive fuel
 51 Wholesale trade and commission trade, except of motor vehicles and motorcycles
 511 Wholesale on a fee or contract basis
 512 Wholesale of agricultural raw materials and live animals
 513 Wholesale of food, beverages and tobacco
 514 Wholesale of household goods

515 Wholesale of non-agricultural intermediate products, waste and scrap
 516 Wholesale of machinery, equipment and supplies
 517 Other wholesale
 52 Retail trade, except of motor vehicles and motorcycles; repair of personal and household goods
 521 Retail sale in non-specialized stores
 522 Retail sale of food, beverages and tobacco in specialized stores
 523 Retail sale of pharmaceutical and medical goods, cosmetic and toilet articles
 524 Other retail sale of new goods in specialized store
 525 Retail sale of second-hand goods in stores
 526 Retail sale not in stores
 527 Repair of personal and household goods

4 Data sources identified and possible:

Ministry for the Economy.

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	-	-	-

67- SHARE OF MERCHANT SERVICES TO THE ENTERPRISES		
CHAPTER 3	THEME 5	CATEGORY
ECONOMIC ACTIVITIES AND SUSTAINABILITY	SERVICES AND COMMERCE	E

1 Definition:

This is the proportion of value added by companies providing services to other companies within the total added value of trading companies.

2 Unit:

Percentage.

3 Methodological description:

The companies involved are defined by the following codes in the European Community Business Nomenclature (NACE rev. 3):

- 74 Services provided mainly to companies
- 741 legal, accounting, business and management consultancy activities
- 742 Architectural and engineering activities and related technical consultancy
- 743 Technical testing and analysis
- 744 Publicity
- 745 Labour recruitment and provision of personnel
- 746 Investigation and security activities.
- 747 Industrial cleaning
- 748 various services provided mainly to companies (photography, conditioning, secretariat, translation)

Added value is the wealth created by a company during a given period. Gross added value is equal to the amount of production less the value of intermediate consumption.

4 Data sources identified and possible:

Ministry for the Economy.

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	-	-	-

68- EXISTENCE OF LEGISLATIONS ON THE HYPERMARKET SETTING UP RESTRICTION		
CHAPTER 3 ECONOMIC ACTIVITIES AND SUSTAINABILITY	THEME 5 SERVICES AND COMMERCE	CATEGORY R

1 Definition:

This indicator shows the existence (or otherwise) of legislation limiting the set-up of hypermarkets in the country.

2 Unit:

Yes / No, if so, join a descriptive sheet of the regulations.

3 Methodological description:

Some countries, in order to protect small town centre retailers, make legal arrangements to prevent or restrict the setting up of hypermarkets, for example by subjecting setting up to prior administrative clearance, or by setting a maximum number of operations over the whole territory.

Such arrangements (like for example in France with the Loi Raffarin) are listed in this indicator.

A hypermarket is defined as a store selling foodstuffs and non-food items in self-service, and whose retail area is greater than 2,500 m².

4 Data sources identified and possible:

National and local governments.

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	-	-	-

69- ENERGY INTENSITY		
CHAPTER 3 ECONOMIC ACTIVITIES AND SUSTAINABILITY	THEME 6 ENERGY	CATEGORY P

1 Definition:

This indicator is defined as the proportion of total national energy consumption per GDP unit and per annum.

2 Unit:

Tons of oil equivalents per thousand US Dollars.

3 Methodological description:

Values for energy consumption are stated as tons of oil equivalent in accordance with the International Energy Agency (AIE) conversion factors stated in its 1996 statistical yearbook.

The consumption calculated is "apparent" consumption: production + imports - exports - bunkers - (+/-) stocks.

National energy consumption combines four main types of sources:

- Solid fuels (coal, etc)
- Liquid fuels (oil, etc.)
- Gas fuels (natural gas, etc.)
- Primary electricity.

GDP is an aggregate of National Income Accounting, providing a measurement of the added value created by income earning activity in the economy within a country. For this indicator, GDP is expressed in constant US dollars, that is to say GDP in current values adjusted by a deflator. The consumer price index is suggested for use as a deflator.

4 Data sources identified and possible:

International Energy Agency (IEA): Statistical Yearbooks.

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	-	-	-

70- ENERGY BALANCE		
CHAPTER 3 ECONOMIC ACTIVITIES AND SUSTAINABILITY	THEME 6 ENERGY	CATEGORY P

1 Definition:

This indicator is defined by two sub-indicators:

- i) The spread of natural primary energy production by major source types: solid fuels (coal etc.), liquid fuels (oil, etc.), gas fuels (natural gas, etc.), and primary electricity,
- ii) The spread of natural primary energy consumption by major source types: solid fuels (coal etc.), liquid fuels (oil, etc.), gas fuels (natural gas, etc.), and primary electricity.

2 Unit:

Percentage.

3 Methodological description:

Solid fuels include: coal, browncoal, peat, briquette, coke, shale and asphaltic sands.

Liquid fuels include: crude oil, liquid natural gas, gas condensates, natural petrol, oil products, aviation gasoline, motor gasoline, jet fuel, kerosene, gas oil, residual fuel oil, liquid petroleum gas, refinery gas, refinery supply products, naphtha, special essences, lubricants, bitumen, paraffin wax, petroleum coke and other oil products.

Gas fuels include: Natural gas, gas-works gas, coke-works gas, and blast furnace gas.

Primary electricity is defined as that of geothermal, hydraulic, nuclear, solar, tidal energy, wind or wave-power origin.

It is suggested that the International Energy Agency (AIE) conversion factors stated in its 1996 statistical yearbook be used to convert the values for energy consumption and production into comparable units (tons of oil equivalent for example).

4 Data sources identified and possible:

International Energy Agency (IEA): Statistical Yearbooks.

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	-	-	-

71- SHARE OF CONSUMPTION OF RENEWABLE ENERGY RESOURCES		
CHAPTER 3	THEME 6	CATEGORY
ECONOMIC ACTIVITIES AND SUSTAINABILITY	ENERGY	R

1 Definition:

This indicator measures the proportion of country's total energy consumption, which is ensured by renewable energy resources.

2 Unit:

Percentage.

3 Methodological description:

Renewable resources refer to "energy collected from current ambient energy flows or from substances derived from them."

Renewable energy sources are biofuels (fuelwood, charcoal, bagasse, peat, industrial wastes and municipal wastes) and electricity derived from solar power, wind power, wave power, hydropower, geothermal aquifers, and nuclear power (United Nations definition).

According to this definition, nuclear energy is considered as "renewable". However, it is peculiar because of associated risks, problems of waste and of the concentration of energy sources within a territory.

In the same way, bio-fuels are renewable only if there is enough wood available to ensure renewal by natural means. The overexploitation of wood cannot be either sustainable or renewable.

Consumption relates to "apparent consumption", derived from the formula "primary production + imports – exports – bunkers - (+/-) stock changes".

Unit conversion rate recommended (United Nations, Energy Statistics Yearbook):

- TCE= ton of coal equivalent; 1 TCE = 0,7 TOE (ton of oil equivalent).
- Fuelwood: 0.33 TCE/m³
- Charcoal: 0.986 TCE/m³
- Bagasse: 0.264 TCE/m³
- Hydro-electricity and wind energy: estimated efficiency 100%, 0.123 TCE/1000 kW.
- Nuclear energy: estimated efficiency 33%, 0.372 TCE/1000 kW.
- Geothermal energy: estimated efficiency 10%, 1.228 TCE/1000 kW.

4 Data sources identified and possible:

United Nations, Energy Statistics Yearbook.

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	-	-	-

72- AVERAGE ANNUAL DISTANCE COVERED PER PASSENGER CAR		
CHAPTER 3 ECONOMIC ACTIVITIES AND SUSTAINABILITY	THEME 7 TRANSPORTS	CATEGORY P

1 Definition:

This indicator corresponds to the average distance travelled each year by the country's passenger cars

2 Unit:

Kilometres per year per passenger car.

3 Methodological description

Passenger cars are those with no more than 9 seats including hire cars, cabs, jeeps, estate cars and other multi-purpose utility vehicles.

4 Data sources identified and possible:

International Road Federation database, World Road Statistics.

Ministry of Transports

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	-	-	-

73- STRUCTURE OF TRANSPORT BY MODE		
CHAPTER 3 ECONOMIC ACTIVITIES AND SUSTAINABILITY	THEME 7 TRANSPORTS	CATEGORY E

1 Definition:

This indicator shows the spread of journeys per person within a country as a percentage over three modes of transport: Road (public and private), Rail and Air (internal flights).

2 Unit:

Respective percentage of the three transport modes.

3 Methodological description:

Journeys are measured in passenger x kilometres for each mode of transport.

4 Data sources identified and possible:

United Nations Statistical Yearbook.

International Road Federation database, World Road Statistics.

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	YES	-	-

74- DENSITY OF THE ROAD NETWORK		
CHAPTER 3 ECONOMIC ACTIVITIES AND SUSTAINABILITY	THEME 7 TRANSPORTS	CATEGORY E

1 Definition:

This is the proportion of the total length of roads in a country (motorways, trunk or national roads, secondary or regional roads and other roads) to the total area of the country.

2 Unit:

km / km².

3 Methodological description:

The ministries in charge of transport and infrastructures generally know the carriageway lengths, from motorways to small secondary roads.

Road lengths may also be calculated using a geographic information systems or from recent road maps.

4 Data sources identified and possible:

International Road Federation database, World Road Statistics.

National and local organizations for maintenance and construction of roads can also hold this information.

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	YES	YES	-

75- SHARE OF COLLECTIVE TRANSPORT		
CHAPTER 3 ECONOMIC ACTIVITIES AND SUSTAINABILITY	THEME 7 TRANSPORTS	CATEGORY R

1 Definition:

The share of collective transport is the ratio of the number of movements using collective transport on the total number of movement.

2 Unit:

Percentage.

3 Methodological description:

The means of public transport taken into account are road transport by bus, rail transport and domestic air transport. In certain cases, transport by sea or river may be included.

All modes of transport include the means of public transport referred to above with the addition of individual road transport (private cars, motorcycles, etc.)

4 Data sources identified and possible:

Ministry of Transports.

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	YES	-	-

76- NUMBER OF NIGHTS PER HUNDRED INHABITANTS		
CHAPTER 3 ECONOMIC ACTIVITIES AND SUSTAINABILITY	THEME 8 TOURISM	CATEGORY P

1 Definition:

This indicator is defined as the number of national and international overnight stays in hotels and similar establishments (H&A) compared annually with the number of inhabitants in a country.

The formula is:
$$\frac{\text{National and international tourist overnight stays} \times 100}{\text{total national resident population}}$$

2 Unit:

Number per hundred inhabitants.

3 Methodological description:

Hotels and similar establishments (H&A) are denoted by the fact:

- That they are made up of rooms greater than a stated minimum;
- That they come under single management;
- That they have certain services available, especially including: Service in rooms, bed-making each day and cleaning of sanitation facilities;
- That they are grouped into classes or categories according to the facilities and services on offer, and
- That they do not form part of any special establishments;
- This accommodation category has been picked out amongst other because of the greater availability of information.

4 Data sources identified and possible:

World tourism Organization (WTO): Compendium of tourism statistics.

Ministry for Tourism.

United Nations: World Population Prospect, 1998.

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	YES	-	-

77- NUMBER OF SECONDARY HOMES OVER TOTAL NUMBER OF RESIDENCES		
CHAPTER 3 ECONOMIC ACTIVITIES AND SUSTAINABILITY	THEME 8 TOURISM	CATEGORY P

1 Definition:

This indicator is defined as the ratio of the number of second homes to the total number of dwellings.

2 Unit:

Percentage.

3 Methodological description:

The total number of dwellings is equal to the sum of main and second homes. Vacant dwellings at the time of the survey are not taken into account.

Main homes are those dwellings occupied on a permanent basis and as the main lodging by households. They are declared as such by their owners or tenants. They mainly comprise lodgings in individual houses or in collective blocks, residential homes for the elderly, farms, rented furnished accommodation, and lodgings at the workplace.

Second homes or dwellings are those dwellings that are used for weekends, leisure or holidays. In theory, those dwellings should be declared as such by their owners.

This indicator has much to gain from being represented in regional or sub-regional administrative units (NUTS 3) in order to highlight potential population fluctuations, especially during the summer period.

4 Data sources identified and possible:

National and local tourism organisations.

Population census - Households surveys.

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	YES	-	-

78- NUMBER OF BED-PLACES PER HUNDRED INHABITANTS		
CHAPTER 3 ECONOMIC ACTIVITIES AND SUSTAINABILITY	THEME 8 TOURISM	CATEGORY P

1 Definition:

This is the number of beds in hotels and similar establishments (H&A) compared to the population annually.

The formula is:
$$\frac{\text{Number of beds (H\&A)} \times 100}{\text{Total national resident population}}$$

2 Unit:

Number per hundred inhabitants.

3 Methodological description:

Hotels and similar establishments (H&A) are denoted by the fact:

- That they are made up of rooms greater than a stated minimum;
- That they come under single management;
- That they have certain services available, especially including: Service in rooms, bed-making each day and cleaning of sanitation facilities;
- That they are grouped into classes or categories according to the facilities and services on offer, and
- That they do not form part of any special establishments.

This accommodation category has been picked out amongst other because of the greater availability of information.

4 Data sources identified and possible:

World tourism Organization (WTO): Compendium of tourism statistics.

Ministry for Tourism.

United Nations: World Population Prospect, 1998.

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	YES	-	-

79- PUBLIC EXPENDITURE ON TOURISM DEVELOPMENT		
CHAPTER 3 ECONOMIC ACTIVITIES AND SUSTAINABILITY	THEME 8 TOURISM	CATEGORY P

1 Definition:

This indicator is defined by the annual amount of public expenditure (government and local communities) devoted to the development of tourist activities in the country.

2 Unit:

Current US dollars.

3 Methodological description:

The indicator relates to the public management of collectively-owned tourism property as well as investment in promotion (publicity) or property acquisition for tourist use.

The public expenditure gathers government expenditure as well as those of local communities.

Expenditure are the flow of funds that reflect the total value of the capital good in the year of acquisition and must be clearly distinguished from annual costs that take into account the lifetime of capital goods

The net amount of expenditure is calculated according to the following formula:

- (Investment expenditure + Current expenditure + Subsidies to private sector) - (Receipts from by-products + Fees/charges from private sector);
- Investment expenditure: outlays and enhancement of durable goods financed by the public sector;
- Current expenditure: processing, rents, wages, energy, maintenance costs, purchase of goods and services, for patrimony under public management;
- Public subsidies: financial transfers of the public towards the private one, aiming at tourist development;
- Receipts from by-products: where expenditure for tourist development, under public management, entails receipts from selling a by-product of this activity, these receipts must be deducted from gross expenditure incurred;
- Fees: Financial transfers from private tourist "enterprises" to the public sector.

Cf. indicator n°125 for more definition on the expenditure.

4 Data sources identified and possible:

Ministries of Culture, Economy, Tourism and Environment are possible data sources at national level.

Local governments and regional communities are possible data sources at local level.

Cultural affairs - Historic buildings.

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	YES	-	-

80- NUMBER OF INTERNATIONAL TOURISTS PER 100 INHABITANT		
CHAPTER 3 ECONOMIC ACTIVITIES AND SUSTAINABILITY	THEME 8 TOURISM	CATEGORY P

1 Definition:

This indicator is defined by the number of arrivals by international tourists compared annually to the number of inhabitants in a country.

Formula:
$$\frac{\text{International tourist arrivals} \times 100}{\text{Total national resident population.}}$$

2 Unit:

Number per hundred inhabitants.

3 Methodological description:

International tourists are the persons who go to another country than that of their habitual residence, for a period of at least one night and of no more than 12 months, and whose main purpose in visiting is not that of carrying on a paid activity in the visited country.

4 Data sources identified and possible:

World tourism Organization (WTO): Compendium of tourism statistics.

United Nations: World Population Prospect, 1998.

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	YES	-	-

81- SHARE OF TOURISM RECEIPTS IN THE EXPORTATIONS		
CHAPTER 3 ECONOMIC ACTIVITIES AND SUSTAINABILITY	THEME 8 TOURISM	CATEGORY E

1 Definition:

This is the proportion of international tourism income expressed as a percentage of the export of goods and services in a country.

Formula:
$$\frac{\text{Amount of income from international tourism} \times 100}{\text{Total amount of exports of goods and services}}$$

2 Unit:

Percentage.

3 Methodological description:

Income from international tourism is the expenditure made in the receiving country by international visitors, including payment for their international transport to domestic transport companies. It should also include any other prior payment for goods and services, collected in the destination country.

Exports of goods and services represent the value of all goods and other market services supplied to the rest of the world. These include the value of goods, freight, insurance, travel and other services.

Receipts and exports amounts must be expressed in the same currency.

4 Data sources identified and possible:

World tourism Organization (WTO): Compendium of tourism statistics.

World Bank and OECD.

National account.

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	-	-	-

82- CURRENCY BALANCE DUE TO TOURISM ACTIVITIES		
CHAPTER 3 ECONOMIC ACTIVITIES AND SUSTAINABILITY	THEME 8 TOURISM	CATEGORY E

1 Definition:

This indicator is defined as the amount of net profits in currency deriving from international tourism for a country.

2 Unit:

Current US Dollars.

3 Methodological description:

Profits in currency are calculated by subtracting from the profits in currency deriving from international tourism, expenditure in currency that is inherent in imports made to meet international tourism requirements.

These imports involve both investment expenditure in equipment for international tourism (acquiring and improving assets) and current import spending (imported foodstuffs, imported maintenance products and equipment, various services, etc.). For each country it would be useful to state the list of "imports".

4 Data sources identified and possible:

Ministries for Tourism and Economy.

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	-	-	-

83- PUBLIC EXPENDITURE ON TOURISM SITES CONSERVATION		
CHAPTER 3 ECONOMIC ACTIVITIES AND SUSTAINABILITY	THEME 8 TOURISM	CATEGORY R

1 Definition:

This indicator is defined by the amount of total net public expenditure allocated to the conservation, management or development of places of interest (cultural, historical and natural patrimony).

2 Unit:

Current US dollars.

3 Methodological description:

The places of interest are "classified" historic buildings, museums, natural parks, etc. As each country may have a different definition of a "place of interest", it will be useful for this definition to be given.

The public expenditure gather government expenditure as well as those of local communities.

Expenditure are the flow of funds that reflect the total value of the capital good in the year of acquisition and must be clearly distinguished from annual costs that take into account the lifetime of capital goods.

The net amount of expenditure is calculated according to the formula:

- (Investment expenditure + Current expenditure + Subsidies to private sector) - (Receipts from by-products + Fees/charges from private sector);
- Investment expenditure: Outlays and enhancement of durable goods financed by the public sector;
- Current expenditure: Processing, rents, wages, energy, maintenance costs, purchase of goods and services, for heritage under public management;
- Public subsidies: Financial transfers of the public towards the private one, aiming at tourism sites conservation;
- Receipts from by-products: where expenditure for tourism sites conservation, under public management, entails receipts from selling a by-product (postcards, book, etc) of this activity, these receipts must be deducted from gross expenditure incurred;
- Fees: Financial transfers from private tourist "enterprises" to the public sector. Only taxes that are directly used for financing conservation and value enhancement expenditure by the public sector are included.

cf. indicator n°125 for more precision on the expenditure.

Note: Do not confuse this indicator with the heritage indicator (indicator n°10). The property of the heritage is not necessarily exploitable for tourism.

4 Data sources identified and possible:

Ministries of Culture, Economy, Tourism and Environment are possible data sources at national level.

Local governments and regional communities are possible data sources at local level.

Cultural affairs - Historic buildings.

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	-	-	-

84- EXPLOITATION INDEX OF RENEWABLE RESOURCES		
CHAPTER 4 ENVIRONMENT	THEME 1 FRESHWATER ET WASTE WATER	CATEGORY P

1 Definition:

This indicator measures the relative pressure of annual production on conventional renewable natural fresh water resources.

Formule : $(P / R) \times 100$

2 Unit:

Percentage.

3 Methodological description:

P: The sum of the volumes of annual conventional renewable natural fresh water production for all uses including losses during conveyance, referring to a specific year.

R: The volume of average annual flows of renewable natural water resources. Resources in each country are defined by surface run-off and underground flows formed or entering the territory, measured on a hydrological database, referring to a period long enough so that the average values used can be considered as being stable, and without double accounting for surface and ground waters.

The questionnaire distributed to the countries within the project MEDSTAT can contribute to the calculation of the variables of the indicator. Refer to the chapter: Inland water, Tab 1, 2 and 3.

4 Data sources identified and possible:

Blue Plan: MARGAT (J.), VALLEE (D.) – Water Resources and uses in the Mediterranean Countries: Figures and Facts, 2000.

The items necessary to the indicator calculation are contained at least partially in the Eurostat/OECD questionnaire on the Environment, which can provide methodological complements. These items of calculation will be partly gathered during the MEDSTAT Environment project (12 Mediterranean countries, 1999-2002).

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	-	-	-

85- NON-SUSTAINABLE WATER PRODUCTION INDEX		
CHAPTER 4 ENVIRONMENT	THEME 1 FRESHWATER ET WASTE WATER	CATEGORY P

1 Definition:

This indicator measures the proportion of the total annual water withdrawals (including losses during transport) deriving from fossil aquifer reserves or from the overexploitation of groundwater, expressed as a percentage.

Formula:
$$\frac{V_f \times 100}{P}$$

2 Unit:

Percentage.

3 Methodological description:

V_f: Annual volumes withdrawn in aquifers with non-renewable resources (fossil waters) or deriving from the overexploitation of renewable groundwater, in hm³ per annum; overexploitation being defined as when withdrawals exceed national average renewal.

P: Total annual water withdrawals, in hm³ per annum.

4 Data sources identified and possible:

Blue Plan: MARGAT (J.), VALLEE (D.) – Water Resources and uses in the Mediterranean countries: figures and facts, 2000.

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	-	-	-

86- SHARE OF DISTRIBUTED WATER NOT CONFORM TO QUALITY STANDARDS		
CHAPTER 4 ENVIRONMENT	THEME 1 FRESHWATER ET WASTE WATER	CATEGORY E

1 Definition:

This is the proportion of drinking water distribution units, which fail, at least one conformity to drinking water quality standards analysis per year as set by national legislation or, failing this, by the World Health Organization (WHO).

If the population connected to each distribution unit is known, this indicator can be converted to the percentage of population served by water that has failed quality standard tests.

2 Unit:

Percentage of the total number of drinking water distribution units (and, better, expressed as a percentage of the total population).

3 Methodological description:

The principal parameters considered are:

- Bacteriological parameters (mainly E Coli)
- Salinity
- Nitrates
- Iron
- Aluminium
- Fluorine
- Turbidity

Among the organisms indicating contamination of faecal origin (faecal coliformes where the coliforme is heat-resistant, faecal streptococcus, spores of sulphite-reducing clostridium), E coli is generally regarded as the most specific indicator. The additional presence of faecal streptococcus is also frequently required.

Recall of WHO standards: Limit values:

Microbiological parameters: - total coliformes: 0-10/100

Nitrates: 50 mg/l NO₃

Iron: 0,3 mg/l Fe

Aluminium: 0.2 mg/l Al

Fluorine: 1.5 mg/l F

Turbidity: 4 Jackson Units.

A European Directive (80/778 Drinking water) also sets threshold values for 67 control parameters.

A distribution unit is regarded as non-conform as soon as at least one parameter in the course of one analysis exceeds the permissible standard during the year.

This definition is severe since just one failure can downgrade the distribution unit; it is also governed by the frequency of control, so that the more frequent the control the more chance there is of failure.

4 Data sources identified and possible:

National and local governments being responsible of Human Health.

Water distribution societies.

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	YES	YES	-

87- WATER GLOBAL QUALITY INDEX		
CHAPTER 4	THEME 1	CATEGORY
ENVIRONMENT	FRESHWATER ET WASTE WATER	E

1 Definition:

Bearing in mind the difficulties in defining and comparing the general quality of water in a single index over time and space, it is suggested here that each country selects representative measuring stations in which the parameters (physical, chemical and biological) will be monitored over time.

2 Unit:

mg/l (or later, % of samples complying with a standard)

3 Methodological description:

The indicator involves surface and ground fresh water.

The assessment of fresh water quality presupposes overcoming several difficulties:

1. Defining quality: for what use? According to what criteria? With what threshold values for those criteria?
2. Totalling values over time: quality can vary very significantly over time: average annual values give no information about pollution incidents, and quality usually drops at low water...
3. Totalling values over space: quality varies very significantly in accordance with the sampling point: upstream or downstream from a discharge, before or after dilution by confluence... In addition, how does one account for an overall (national) position, that is to say how does one make totals over space for the values supplied by scattered samples...

Quality classes:

The "overall quality" index suggested here for a watercourse or an aquifer does not refer to any particular use; it builds in several criteria, which describe an aquatic environment in overall terms; all these criteria (organic and oxidizable matter, suspended solids, salinity, nitrates, phosphorus, chlorophyll, metals) are integrated in a summary form in a quality grid defined at national level. In this way, each sample taken and analysed in the field can, in accordance with the most downgrading criterion during analysis, be assigned to a quality class in relation to that grid. When there are an adequately large number of samples (over space and time), values can be interpolated and water resources mapped each year in accordance with the various grids (by linear sections of watercourses or by areas of even quality in water tables). If this data is available, statistics can be drawn up on changes in quality classes (what length of a watercourse went from one class to another in any given period for example), even if those statistics may be difficult to apply to the volumes of water involved.

Nevertheless, this kind of result is rarely available in the countries, because of the small number of analyses carried out or of the absence of quality class definitions.

In the absence of anything better:

In this way the suggested approach will consist of, initially, setting up measuring stations at national level at representative sites: on 3 rivers and 3 water tables and presenting the measurement result time series, criterion by criterion, as an annual average. One can focus on a few criteria: Biochemical Oxygen Demand or salinity for water tables.

PARAMETERS	Unit	PARAMETERS	Unit
	Annual average		Annual average
Flow	m ³ /s	Chlorophyll a (summer)	mg/l
Temperature	°C	Fecal coliformes	n/100 ml
Acidity	pH	MÉTAUX (f)	
Dissolved Oxygene	mg O2/l	Total arsenic	mg As/l
Oxygene Saturation	%	Total cadmium	mg Cd/l
DBO (20 °,5j)	mg O2/l	Total chrome	mg Cr/l
DCO (K2Cr2O7)	mg O2/l	Total copper	mg Cu/l
Suspended solid	mg/l	Total lead	mg Pb/l
Dissolved solid	mg/l	Total mercury	mg Hg/l
Total nitrogen	mg N/l	Total nickel	mg Ni/l
Nitrates (NO3)	mg N/l	Total zinc	mg Zn/l
Ammonium (NH4)	mg N/l	Cyanides	mg CN/l
Total phosphorus	mg P/l	Organochlorine	mg/l
Ortho phosphate	mg P/l		

Abstract of Table 8 Inland Water, Quest. MEDSTAT

This approach is based on the EUROSTAT/OECD/Environment questionnaire, on the topic of "Inland Water", tables 8 and 9. In those tables, it is suggested that various physico-chemical and biological criteria be monitored.

If this is interesting for any given measuring station, but already with the limitation of presenting annual averages which do not mean a great deal, this approach does not give any data on the overall health status of the aquatic environment since it depends on the selection of the stations. In order to better grasp the overall quality of continental water, much work on methods and many measurement networks are still needed.

The presentation of the indicator in the form of a map is recommended. It will be useful to supply the components (coordinates, values, etc.) required for compiling the national maps.

4 Data sources identified and possible:

Ministries for Environment and Health.

Agency or organisation for water resources management.

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	-	YES	-	-

88- SHARE OF COLLECTED AND TREATED WASTEWATER BY THE PUBLIC SEWERAGE SYSTEM		
CHAPTER 4 ENVIRONMENT	THEME 1 FRESHWATER ET WASTE WATER	CATEGORY R

1 Definition:

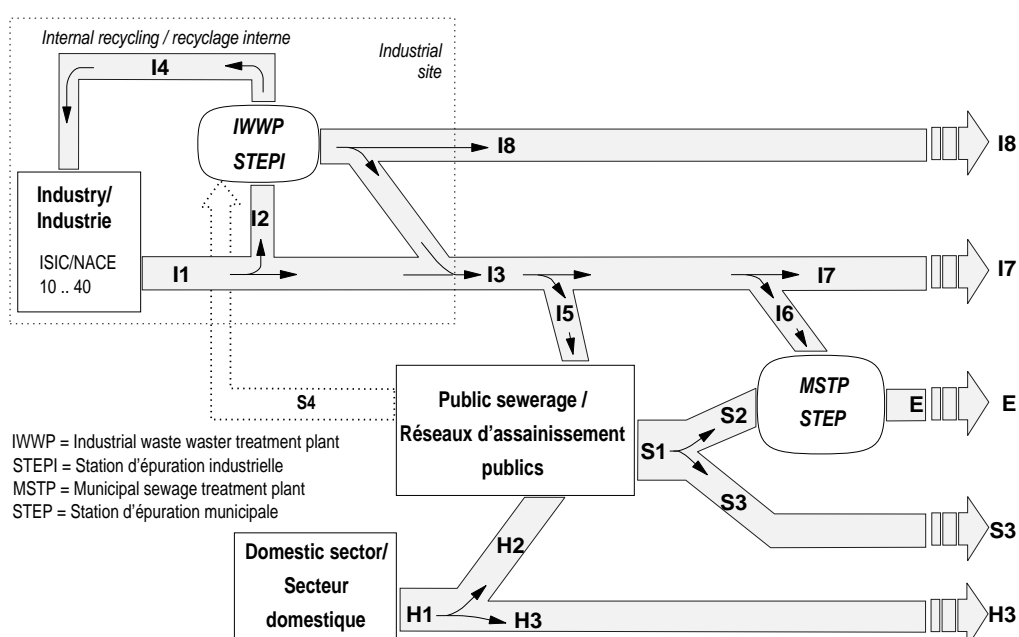
This is the proportion of wastewater produced that has been subject both to collection from a collective network (from households, local authorities or industry) and has been adequately treated to allow its discharge into the environment without impacting human health or ecosystems.

2 Unit:

Percentage.

3 Methodological description:

Refer to the diagram (OECD-Eurostat questionnaire, 1998, Inland Water, Tab 4,5, 7,1) for a better understanding of the indicator.



The total volume of wastewater produced is equal to the volume produced by the domestic sector (H1) to which the volume (I3) produced by industry and not directly treated on site is added (also listed in indicator n°91).

The volume of treated wastewater (S2+I6) is the volume of water collected that is conveyed to other sites where it is treated (excluding treatment on industrial sites see indicator n°91).

The indicator represents the ratio: $(S2+I6)/(H1+I3)$.

This can be built up in two stages, without affecting the result, by multiplying the two following sub-indicators:

1. The proportion of waste water produced that is collected by public networks $(H2+I5)/(H1+I3)$ and
2. The proportion of wastewater collected by the public network and which is connected to a treatment plant $(S2+I6)/(H2+I5)$.

Strictly speaking, the indicator should be weighted by the yield R_i for the various treatment plants i , in order to actually measure the percentage of domestic waste water (and industrial waste water connected to the domestic network) that has been subjected to adequate treatment to allow discharge into the environment without resulting in any environmental impact.

The notion of treatment brings together a wide range of processes (mechanical, biological and biochemical) that allow greater or lesser sanitation.

4 Data sources identified and possible:

National water companies and services of public utility.

Authorities responsible for hydrological basin.

Municipal authorities.

The items necessary to the indicator calculation are contained at least partially in the Eurostat/OECD questionnaire on the Environment, which can provide methodological complements. These items of calculation will be partly gathered during the MEDSTAT Environment project (12 Mediterranean countries, 1999-2002).

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	YES	YES	-

89- EXISTENCE OF ECONOMIC TOOLS TO RECOVER THE WATER COST IN VARIOUS SECTOR		
CHAPTER 4 ENVIRONMENT	THEME 1 FRESHWATER ET WASTE WATER	CATEGORY R

1 Definition:

This indicator gives information about the existence of economic instruments (levies, taxes, duties and other) used to cover the cost of water (withdrawals, upstream treatment, distribution and sanitation) for users in various sectors.

2 Unit:

Yes / No, if so, join a descriptive sheet of economical tools.

3 Methodological description:

The sectors involved are the public sector (central and local administrations and local authorities) and the private sector including companies and households.

It is proposed to handle the indicator and fill out answers in accordance with the following template:

Phases:	Withdrawal Upstream Treatment	Distribution And Use	Downstream Sanitation
Sectors:			
Sectors:Public (administrations,etc.)			
Agricultural enterprises			
Trading companies			
Industry			
Households			

For each box, or set of boxes as appropriate, state the type of economic tool. It would be useful to attach a brief definition and aims for each economic tool, because each country may have differing concepts and approaches to application.

4 Data sources identified and possible:

Ministries of Economy, Environment and Agriculture.

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	-	-	-

90- DRINKING WATER USE EFFICIENCY		
CHAPTER 4 ENVIRONMENT	THEME 1 FRESHWATER ET WASTE WATER	CATEGORY R

1 Definition:

This is the proportion of drinking water produced and distributed that is paid for by the user.

Ratio = $V1 / V2$ where

- $V1$ = volume of running water invoiced and paid for by the user
- $V2$ = total volume of running water produced and distributed.

2 Unit:

Percentage.

3 Methodological description:

The indicator measures both the physical efficiency of drinking water supply networks (rate of loss) and economic efficiency that is the ability of network managers to recover costs from the user.

In the way, $V1$, the volume of drinking water invoiced and paid for takes into account both of: Volume $V1d$, distributed to the user (measured by a metering system) which includes leaks at the user premises, the proportion Pf of that volume which is subject to invoicing and lastly the proportion Pr of that invoiced volume that is actually recovered from the user:

$$V1 = V1d * Pf * Pr.$$

These three sub-indicators may also be supplied separately. $V2$ is the volume of drinking water produced upstream of the distribution system and includes distributed water + leaks in the transport and distribution network. An estimate by water distributors may be supplied.

This indicator may take urban and rural areas into account.

4 Data sources identified and possible:

National water companies and services of public utility.

Authorities responsible for hydrological basin.

Municipal authorities.

The items necessary to the indicator calculation are contained at least partially in the Eurostat/OECD questionnaire on the Environment, which can provide methodological complements. These items of calculation will be partly gathered during the MEDSTAT Environment project (12 Mediterranean countries, 1999-2002).

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	-	-	-

91- SHARE OF INDUSTRIAL WASTEWATER TREATED ON SITE		
CHAPTER 4 ENVIRONMENT	THEME 1 FRESHWATER ET WASTE WATER	CATEGORY R

1 Definition:

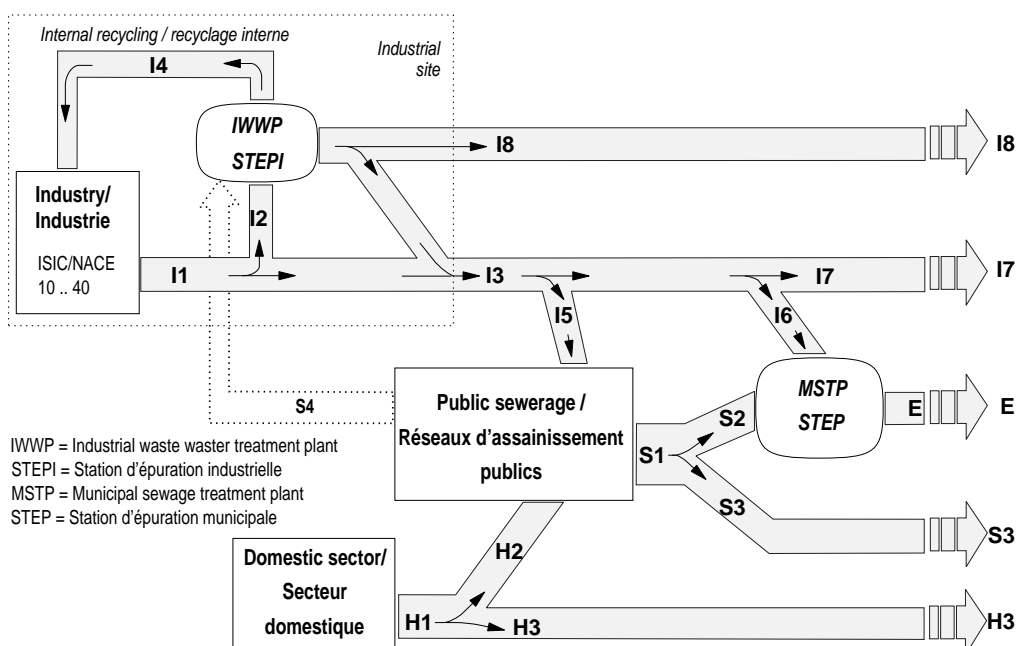
This is the proportion of wastewater produced by industry and receiving autonomous treatment that is adequate to allow it to be discharged into the environment without impacting human health or ecosystems.

2 Unit:

Percentage.

3 Methodological description:

For the definition of the proportion of treated industrial water, this will be restricted to the volumes treated by direct connection to autonomous treatment plant, on site (excluding the volumes of industrial waste water flowing through collective networks, described in indicator n°88).



Refer to the diagram OECD-Eurostat questionnaire, 1998, Inland Water, tab 7.1

The total volume of wastewater produced by industry is (I1).

The volume of industrial wastewater treated by non-public treatment plants (industrial STEP I) is equal to volume (I2).

The indicator then represents the ratio: I2/I1

Strictly speaking, the indicator should be weighted by the yield R_i for the various treatment plants i , in order to actually measure the percentage of domestic waste water (and industrial waste water connected to the domestic network) which has been subjected to adequate treatment to allow discharge into the environment without resulting in any environmental impact.

The notion of treatment brings together a wide range of processes (mechanical, biological and biochemical) that allow greater or lesser sanitation.

For autonomous industrial wastewater treatment, this indicator supplements the indicator for the proportion of wastewater collected and treated by the public system (indicator n 88).

4 Data sources identified and possible:

National water companies and services of public utility.

Authorities responsible for hydrological basin.

Municipal authorities.

The items necessary to the indicator calculation are contained at least partially in the Eurostat/OECD questionnaire on the Environment, which can provide methodological complements. These items of calculation will be partly gathered during the MEDSTAT Environment project (12 Mediterranean countries, 1999-2002).

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	YES	YES	-

92- RATIO OF LAND EXPLOITATION		
CHAPTER 4 ENVIRONMENT	THEME 2 SOILS, VEGETATION AND DESERTIFICATION	CATEGORY P

1 Definition:

This indicator is defined by reference to the area of agricultural land over the potential cultivable surface.

2 Unit:

Percentage

3 Methodological description:

Agricultural land corresponds to the total of the FAO's "Arable land" and "Permanent crops".

"Arable land" is land given over to temporary crops (double-cropped areas are counted only once), temporary meadows for mowing or grazing, land under market and kitchen gardens and land temporarily fallow (less than five years). The abandoned land resulting from shifting cultivation is not included.

"Permanent crops" (FAO) are "land given over to crops that occupy the ground for long periods and need not be replanted after each harvest (vines, fruit trees...)".

The main difficulty with this indicator is in assessing the area of land that has the potential to be cultivated. This estimate must be made by the country according to criteria, which reflect the pedological features of the soil (fertility) and current growing techniques, in order to ensure economically viable production. The country should state the approach used in making this assessment.

4 Data sources identified and possible:

United Nations - FAO.

Ministries for Environment and Agriculture.

The items necessary to the indicator calculation are contained at least partially in the Eurostat/OECD questionnaire on the Environment, which can provide methodological complements. These items of calculation will be partly gathered during the MEDSTAT Environment project (12 Mediterranean countries, 1999-2002).

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	-	-	-

93- LAND USE CHANGE		
CHAPTER 4 ENVIRONMENT	THEME 2 SOILS, VEGETATION AND DESERTIFICATION	CATEGORY E

1 Definition:

This indicator describes changes, over time, in the distribution of land use categories within a country.

It actually consists of a matrix of transition indicators, for a given period, from a type of land use towards another type of land use, expressed in area units.

2 Unit:

km² and percentage.

3 Methodological description:

Nomenclatures of the land use classifications are numerous. In the interest of harmonization and simplification, the nomenclature suggested in the questionnaire Eurostat-OCDE, 1998 is proposed:

1. Agricultural land
2. Forest and wooded land
3. Build-up land
4. Open wetlands
- 5+6. Open land
7. Water

This nomenclature resembles the first levels of Corine Land Cover nomenclature, used by many countries, especially European countries:

1. Artificialized land
2. Agricultural land
3. Forest and milieu
4. Wetlands
5. Water Surfaces

The indicator is presented in the form of a table showing category changes for a given period. Column headings are the 5 main types of use at the beginning of the period; the line headings are the 5 main types of use at the end of the period.

This table makes it possible to calculate the losses or gains for each of the above category, expressed as a percentage of the category.

Information on land use changes can be extracted from periodic work of cartography and monitoring, from remote sensing data, supported by on land checks or land use periodic surveys.

4 Data sources identified and possible:

National governments for European countries, the updated project of Landcover (CLC2000) could also provide elements to calculate these matrices.

The items necessary to the indicator calculation are contained at least partially in the Eurostat/OECD questionnaire on the Environment, which can provide methodological complements. These items of calculation will be partly gathered during the MEDSTAT Environment project (12 Mediterranean countries, 1999-2002).

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	YES	YES	-

94- "ARABLE LAND" CHANGE		
CHAPTER 4 ENVIRONMENT	THEME 2 SOILS, VEGETATION AND DESERTIFICATION	CATEGORY E

1 Definition:

This indicator is defined as the ratio of the area of arable land in a year X_n over the area of the arable land in a reference year X_0 .

Formula:
$$\frac{\text{area of arable land in year } X_n}{\text{area of arable land in year } X_0}$$

If this is greater than 100, that expresses an increase in arable land;
If this is less than 100, that expresses a decrease in arable land.

2 Unit:

Percentage.

3 Methodological description:

"Arable land" is land given over to temporary crops (double-cropped areas are counted only once), temporary meadows for mowing or grazing, land under market and kitchen gardens and land temporarily fallow (less than five years). The abandoned land resulting from shifting cultivation is not included.

4 Data sources identified and possible:

FAO Statistical Yearbook.

FAO on-line database, 1999: [http : // www.fao.org](http://www.fao.org).

The items necessary to the indicator calculation are contained at least partially in the Eurostat/OECD questionnaire on the Environment, which can provide methodological complements. These items of calculation will be partly gathered during the MEDSTAT Environment project (12 Mediterranean countries, 1999-2002).

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	YES	-	-

95- WETLAND AREA		
CHAPTER 4 ENVIRONMENT	THEME 3 BIOLOGICAL DIVERSITY, ECOSYSTEMS	CATEGORY P

1 Definition:

This indicator measures the total area of wetlands in the country.

It includes the area of national sites classified in the list of internationally significant wetlands in the RAMSAR Convention.

2 Unit:

Square kilometres.

3 Methodological description:

The list of RAMSAR sites is updated every two years and can be obtained from the Convention secretariat.

The list of sites includes various types of wetlands (coastal, flood plains, marshes, lakes...) for which data is available and harmonised.

The total area of national wetlands can be determined by the use of the following definition, in accordance with the 1998 Eurostat-OECD questionnaire on the environment; land use.

Wetlands are there defined as: "Non-wooded area either partially, temporarily or permanently water-logged, the water of which may be fresh, brackish or saline, on blanket or raised peatlands. The water may be either stagnant or running, and is usually shallow".

4 Data sources identified and possible:

Secretariat of the RAMSAR Convention.

Ministry for the Environment.

Eurostat-OECD Environment questionnaire, 1998 or, failing this, Corine Land Cover database for the countries it covers: point 4 of the nomenclature, wetlands.

The items necessary to the indicator calculation are contained at least partially in the Eurostat/OECD questionnaire on the Environment, which can provide methodological complements. These items of calculation will be partly gathered during the MEDSTAT Environment project (12 Mediterranean countries, 1999-2002).

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	YES	YES	-

96- NUMBER OF TURTLES CATCHED PER YEAR		
CHAPTER 4 ENVIRONMENT	THEME 3 BIOLOGICAL DIVERSITY, ECOSYSTEMS	CATEGORY P

1 Definition:

The number of marine turtles caught in the Mediterranean defines this indicator.

2 Unit:

Number.

3 Methodological description:

Two species of turtle, which reproduce in the Mediterranean, are threatened by certain fishing activities, and are:

- The green turtle, *Chelonia mydas*.
- The hawksbill, *Caretta caretta*.

4 Data sources identified and possible:

Regional Activity Centre / Specially Protected Areas (RAC/SPA).

World Wild Fund.

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	-	-	-

97- SHARE OF FISHING FLEAT USING BARGE		
CHAPTER 4 ENVIRONMENT	THEME 3 BIOLOGICAL DIVERSITY, ECOSYSTEMS	CATEGORY P

1 Definition:

This indicator is defined by the ratio of engine power (steam horse power) of trawlers out of the total engine power for the motor fishing fleet.

2 Unit:

Percentage.

3 Methodological description:

The International Fishing Boat Statistical Classification (CSIBTP) is used.

Trawlers correspond to class 01 plus classes 08.2 Trawler-Seiners and 08.3 Trawler-drifters.

Only motorboats are taken into account.

4 Data sources identified and possible:

United Nations, FAO: Fishery fleets statistics.

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	-	-	-

98- THREATENED SPECIES		
CHAPTER 4 ENVIRONMENT	THEME 3 BIOLOGICAL DIVERSITY, ECOSYSTEMS	CATEGORY E

1 Definition:

This indicator measures the number of threatened species in proportion to the total number of native species.

Threatened species are those at risk of extinction, and include endangered, vulnerable, rare, and indeterminate species as defined by International Union for Conservation of Nature. Extinction means no longer existing anywhere in the world, at least in the wild, and must be distinguished from extermination which means no longer existing in the country or area of interest. The species concerned are natives and have not been introduced; they are described at the third level of taxonomic hierarchy: the class.

2 Unit:

Percentage.

3 Methodological description:

Because the total number of living species is not exactly known, this indicator must be calculated for classes where the total species number is well known. It is recommended that four sub-indicators be taken into account:

1. Percentage of the vascular plants species threatened, in the whole of classes;
2. Percentage of the threatened species, in each class of vascular plants;
3. Percentage of the vertebrate species threatened, in the whole of classes;
4. Percentage of the threatened species, in each vertebrate class;

Data for each of the four sub-indicators of the species threatened of extinction and the species threatened of extermination can be established separately.

4 Data sources identified and possible:

National sources: Organizations responsible for the management of savage fauna and flora and/or the Implementation for Convention on biological diversity.

International source: World Conservation Monitoring Centre (WCMC).

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	-	-	-

99- TOTAL EXPENDITURE ON PROTECTED AREAS MANAGEMENT		
CHAPTER 4 ENVIRONMENT	THEME 3 BIOLOGICAL DIVERSITY, ECOSYSTEMS	CATEGORY R

1 Definition:

This indicator is defined as the total maintenance expenditure and material, human and financial investment expenditure, devoted to the management of protected areas.

2 Unit:

US dollars.

3 Methodological description:

Expenditure on protected areas management includes: expenditure directed at protection and rehabilitation of species, landscapes and habitats in the protected area; expenditure for the related activities of monitoring and administration. Excluded are expenditures of which the immediate aim is not the safeguarding of species or their habitat, but is mainly for technical, hygiene or internal security reasons.

The expenditure can be given for:

- The total national protected area, including protected areas according to nomenclature I to VI from the IUCN, but also other types of protected areas like some of the "Specially Protected Areas" (SPA). The surface of each type of area and the amount allocated to its management are required. This field makes it possible to highlight national or Mediterranean specificities (SPA) of protection and management of protected areas;
- More specifically, for the 6 IUCN categories, detailing: their surface and the expenditure devoted to their management, by category. This separation gives a better comparison at international level.

Management expenditure must include those of all public and private sites.

The *public sector* includes central and local governments and communities; the public sector includes expenditure by government agencies and other public bodies financed or controlled by municipalities.

The net amount of area management expenditure by the public sector is calculated according to the formula: (Investment expenditure + Current expenditure + Subsidies to the private sector for area management) - (Receipts from by-products + Fees/charges from private sector).

The *private sector* includes various national associations and international subsidiaries, as well as any private company in charge of protected area management.

The net amount of area management expenditure by the private sector is calculated according to the formula: (Investment expenditure + Current expenditure + Fees/charges paid to public sector) - (Receipts from by-products + Subsidies from public sector).

Current expenditure: expenditure of management related to i) own production of services: salaries and wages, rents, energy, maintenance costs and other intermediate consumptions; ii) purchase of services and goods.

- Investment expenditure: acquisition (purchases and own production) of lands and new durable goods added to the stock of fixed assets, for management objectives.
- Current expenditure: expenditure of management related to i) own production of services: salaries and wages, rents, energy, maintenance costs and other intermediate consumptions; ii) purchase of services and goods.
- Public subsidies: financial transfers of the public towards the private aiming at protected area management.
- Receipts from by-products: Where management activities entails receipts from selling a by-product of this activity (for example, entrance price to a natural park), these receipts must be deducted from gross expenditure incurred.
- Fees: Financial transfers from area under private management to the public sector. Only taxes that are directly used for financing conservation and value enhancement expenditure by the public sector are included.

This indicator is linked with indicator n°125 - Public expenditure on environmental protection.

4 Data sources identified and possible:

International Union for Nature Conservation.

Regional Activity Centre / Specially Protected Areas.

Ministry of Environment and/or Agriculture.

Association of protected areas management.

The items necessary to the indicator calculation are contained at least partially in the Eurostat/OECD questionnaire on the Environment, which can provide methodological complements. These items of calculation will be partly gathered during the MEDSTAT Environment project (12 Mediterranean countries, 1999-2002).

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	-	-	-

100- GENERATION OF MUNICIPAL SOLID WASTE		
CHAPTER 4 ENVIRONMENT	THEME 4 SOLID, INDUSTRIAL AND HAZARDOUS WASTE	CATEGORY P

1 Definition:

This is the production of municipal solid waste weighted at the place of production.

2 Unit:

Tonnes per inhabitant and per year.

3 Methodological description:

The definition of solid waste varies according to country, but it can be described as material, which has no further useful purpose and must be discarded. It does not have any commercial value for the producer, even if it can be reused by other activities.

Municipal waste refers to waste collected by or on behalf of municipalities. It includes waste originating from households, municipal services (roadway, parks), similar waste from commerce and trade, office buildings, institutions like schools, hospitals, government buildings, and small businesses whose waste is treated in the same installations as those collected by the municipalities. The definition excludes waste from municipal sewage network and treatment, as well as municipal construction and demolition waste.

"Households waste" generally includes domestic waste (normal and special), bulky waste and animal corpses.

4 Data sources identified and possible:

International level, this information is required in the questionnaire OECD-Eurostat 1998, Wastes, Tab 1c according to an harmonized nomenclature being under revision.

National level: Ministries responsible for the urban businesses and the environment; statistical organizations; municipalities.

The items necessary to the indicator calculation are contained at least partially in the Eurostat/OECD questionnaire on the Environment, which can provide methodological complements. These items of calculation will be partly gathered during the MEDSTAT Environment project (12 Mediterranean countries, 1999-2002).

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	YES	YES	-

101- GENERATION OF HAZARDOUS WASTES		
CHAPTER 4 ENVIRONMENT	THEME 4 SOLID, INDUSTRIAL AND HAZARDOUS WASTE	CATEGORY P

1 Definition:

This indicator is defined by the total volume of hazardous waste produced per year by industrially generated waste or other waste, established in accordance with the Basle Convention definition of waste and other related conventions.

2 Unit:

Tonnes per year.

3 Methodological description:

The Basle Convention defined hazardous wastes as "Wastes that belong to any category (Y1 to Y45) contained in Annex I, unless they do not possess any of the characteristics contained in Annex III. They are also "Wastes that are not covered under previous definition but are defined as, or are considered to be, hazardous wastes by the domestic legislation of the country".

Nuclear Waste and waste that derive from the normal operations of a ship is excluded of the Basle Convention because it is covered by another international instrument of control.

To present the data, the classification of the questionnaire Eurostat-OECD 1998 can be used; it shows, in particular, the classes Y1 in Y18 of the Basle Convention.

4 Data sources identified and possible:

Secretariat of the Basle Convention.

Questionnaire Eurostat-OECD 1998, Wastes, Tab 2a.

The items necessary to the indicator calculation are contained at least partially in the Eurostat/OECD questionnaire on the Environment, which can provide methodological complements. These items of calculation will be partly gathered during the MEDSTAT Environment project (12 Mediterranean countries, 1999-2002).

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	-	-	-

102- IMPORTS AND EXPORTS OF HAZARDOUS WASTES		
CHAPTER 4 ENVIRONMENT	THEME 4 SOLID, INDUSTRIAL AND HAZARDOUS WASTE	CATEGORY P

1 Definition:

This indicator is the total amounts of hazardous wastes subject to transboundary movements as defined by the Basle Convention.

2 Unit:

Metric tonnes per year.

3 Methodological description:

The import or export of hazardous waste is the total amount of hazardous waste subject to transboundary movements within the definition of the Basle Convention or any other constraining instrument, like the "Protocol on the Prevention of Pollution of the Mediterranean sea by transboundary movements of hazardous waste and their disposal".

The Basle Convention defined hazardous wastes as "Wastes that belong to any category (Y1 to Y45) contained in Annex I, unless they do not possess any of the characteristics contained in Annex III. They are also "Wastes that are not covered under previous definition but are defined as, or are considered to be, hazardous wastes by the domestic legislation of the country".

Nuclear Wastes and wastes that derive from the normal operations of a ship are excluded of the Basle Convention because they are covered by another international instrument of control.

4 Data sources identified and possible:

Secretariat of the Basle Convention (<http://www.unep.ch/basel>)

Questionnaire Eurostat-OECD 1998, Wastes, Tab 2b.

The items necessary to the indicator calculation are contained at least partially in the Eurostat/OECD questionnaire on the Environment, which can provide methodological complements. These items of calculation will be partly gathered during the MEDSTAT Environment project (12 Mediterranean countries, 1999-2002).

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	-	-	-

103- GENERATION OF INDUSTRIAL SOLID WASTE		
CHAPTER 4 ENVIRONMENT	THEME 4 SOLID, INDUSTRIAL AND HAZARDOUS WASTE	CATEGORY P

1 Definition:

The annual total production of solid waste by industry measured by weight at the place of production.

2 Unit:

Tonnes per inhabitant and per year.

3 Methodological description:

The annual total production of solid waste by industry measured by weight at the place of production. National nomenclature and definitions for industrial waste vary widely from one country to the next. It is suggested that the quantities produced be broken down in accordance with the nomenclature in the International Industry Classification by Type ISIC revision 3. This same nomenclature is used in the context of the OECD-Eurostat questionnaire, 1998, Environment, Waste.

Several classes are distinguished from one another, according to manufacturing activity (cat. 15-37) detailed below.

Industrial waste can be classified according to business codes (ISIC/NACE) for the manufacturing industries, which produces it as follows:

- 15-16 Manufacture of food products, beverages and tobacco products
- 17-18 Manufacture of textiles and wearing apparel; dressing and dyeing of fur
- 19 Tanning and dressing of leather; manufacture of luggage, handbags, saddlery, harness and footwear
- 20 Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials
- 21 Manufacture of paper and paper products
- 22 Publishing, printing and reproduction of recorded media
- 23 Manufacture of coke, refined petroleum products and nuclear fuel
- 24 Manufacture of chemicals and chemical products
- 25 Manufacture of rubber and plastic products
- 26 Manufacture of other non-metallic mineral products
- 27 Manufacture of basic metals
- 28-35 Manufacture of fabricated metal products, machinery and equipment
- 36-37 Other Manufacture of furniture.

Other waste nomenclature is available (European Waste Catalogue, which revision is planned, based on various criteria: nature of waste, business domain, dangerousness - inert, everyday, toxic-,....).

It is for the sake of simplification that the nomenclature above has been suggested.

We also refer to indicator n°101 “production of hazardous waste” which also contains certain toxic industrial waste.

4 Data sources identified and possible:

Ministries responsible for urban, industry and the environment, as well as the statistical organizations.

The items necessary to the indicator calculation are contained at least partially in the Eurostat/OECD questionnaire on the Environment, which can provide methodological complements. These items of calculation will be partly gathered during the MEDSTAT Environment project (12 Mediterranean countries, 1999-2002).

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	YES	-	-

104- AREA OF LAND CONTAMINATED BY HAZARDOUS WASTES		
CHAPTER 4 ENVIRONMENT	THEME 4 SOLID, INDUSTRIAL AND HAZARDOUS WASTE	CATEGORY E

1 Definition:

This indicator corresponds to the surface area of sites within a country contaminated by pollution related to the stocking of hazardous waste, and where no appropriate measures have been taken to prevent negative effects on human health and the environment. The term "hazardous waste" refers to definitions drawn up in the Basle Convention framework.

2 Unit:

Square kilometres

3 Methodological description:

The Basle Convention defined hazardous wastes as "Wastes that belong to any category (Y1 to Y45) contained in Annex I, unless they do not possess any of the characteristics contained in Annex III. They are also "Wastes that are not covered under previous definition but are defined as, or are considered to be, hazardous wastes by the domestic legislation of the country".

Nuclear Wastes and wastes that derive from the normal operations of a ship are excluded of the Basle Convention because they are covered by another international instrument of control.

Note: the surface is perhaps not the best impact indicator. There can be underground infiltration, in karstic zones or valley fillings, with a low surface area but in large volumes, in mountainous areas.

Suggestion: indicate at least the number of contaminated sites and their nature. Better still, indicate the surface, volume and tonnage. Tonnage is undoubtedly the best parameter for estimating the costs of depollution.

4 Data sources identified and possible:

Ministries in charge of agriculture, land use, planning and the environment, as well as the military authorities.

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	YES	-	-

105- DISTRIBUTION OF MUNICIPAL WASTES		
CHAPTER 4 ENVIRONMENT	THEME 4 SOLID, INDUSTRIAL AND HAZARDOUS WASTE	CATEGORY E

1 Definition:

This is the average composition of municipal waste expressed as a percentage of the various items which make it up, by weight.

2 Unit:

Percentage.

3 Methodological description:

Municipal waste is that collected by (or on behalf of) local authorities. It is made up of the waste produced by households, municipal departments (roads, green space, sanitation waste), by retail and industrial activities, by offices, institutions such as schools and administrative buildings and small companies whose waste is dealt within the same facilities as those collected by local authorities. Household waste is that produced by the domestic activity of households. These are made up of household waste and bulky wastes.

National definitions may vary.

The 1998 Eurostat-OECD questionnaire on the environment set out 7 major classes of waste as follows:

- Papers and paperboards
- Textiles and others
- Plastics
- Glass
- Metals
- Food waste
- Garden waste
- Others

4 Data sources identified and possible:

International: Eurostat-OECD Questionnaire; 1998; Waste, Tab3; OECD Data on the environment, Compendium 1997.

National: Municipalities and local authorities, Ministry for the environment.

The items necessary to the indicator calculation are contained at least partially in the Eurostat/OECD questionnaire on the Environment, which can provide methodological complements. These items of calculation will be partly gathered during the MEDSTAT Environment project (12 Mediterranean countries, 1999-2002).

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	YES	YES	-

106- MINIMISATION OF WASTE PRODUCTION		
CHAPTER 4 ENVIRONMENT	THEME 4 SOLID, INDUSTRIAL AND HAZARDOUS WASTE	CATEGORY R

1 Definition:

The indicator is a sheet that sets out if there are policies or measures taken in the country with the purpose of minimising waste production.

2 Unit:

Yes / No, if so, join a descriptive sheet of policies and regulations.

3 Methodological description:

The sheet may involve several types of waste (municipal, industrial etc).

Reduction of waste at source allows:

- Avoiding the waste of raw materials (and energy).
- Limiting the cost of waste management.
- Reducing the impact of waste on the environment and on human health.
- More easily reaching regulatory goals

As an example of policies for waste reduction at source, the following can be quoted:

- Clean technologies,
- Waste studies,
- Environmentally friendly products and ecological seals (European ecological seals, the French «NF environnement» label),
- Environmental management systems,
- Reference texts (ISO 14001 standard, European Eco-Audit regulations).

4 Data sources identified and possible:

Ministry for the Environment.

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	-	-	-

107- COST RECOVERY INDEX OF MUNICIPAL WASTES		
CHAPTER 4 ENVIRONMENT	THEME 4 SOLID, INDUSTRIAL AND HAZARDOUS WASTE	CATEGORY R

1 Definition:

This is the proportion of net costs (net costs = gross costs after deduction of onward sales proceeds) of collection, transport, treatment and disposal covered by taxes paid by users, which have the benefit of these services.

Important: The period taken into account is the public budgeting year since it is often local public authorities that carry out collection and treatment. In the case of composting, recycling and reclamation (incineration: Sale of energy recovered), it is important to deduct from costs the income generated by reinserting items made from household waste into flows in the economy.

2 Unit:

Percentage.

3 Methodological description:

Expenditures are flows of funds that reflect the total value of the capital good in the year of acquisition and must be clearly distinguished of annual cost that take into account the lifetime of capital goods.

Definition of "municipal waste" (OECD/Eurostat Questionnaire): This is waste collected by or on behalf of a local authority.

- - This includes waste produced by households, similar waste from retail activities, offices, institutions (schools and administrative buildings and hospitals) and small companies.
- It includes waste from these sources collected door to door or left in the same facilities as those collected by local authorities, in addition to those collected by separate collection with a view to reclamation activity (door to door or by voluntary contribution). It also includes similar waste from rural areas, even if the generators of that waste dispose them of.
- It also includes: (i) bulky waste (such as white goods, old furniture, mattresses, etc.), and (ii) residues from gardens and green space (leaves, grass cuttings etc.), waste from maintaining roadways (road cleaning, contents of public bins, market waste) if they are managed as waste.
- The definition excludes the waste arising from municipal wastewater sanitation (sewage treatment, water purification) and builder's waste and that from local authority demolition.

Details of the terms of the definition are (adapted from SERIEE 1994, Eurostat)

- *Waste collection and transport*: the activity is made up of the collection and transport of municipal waste, either by local authority departments or by similar public or private bodies, and their transportation to the place of treatment or disposal. Road cleaning is included for the part handling public bins and the collection of waste along streets. Snow clearing is excluded. Collection can be separate (i.e. involve only one type of product) or non separate (i.e. involve all types of waste at the same time).

- Waste treatment and disposal: waste treatment refers to processes aimed at changing the physical, chemical or biological features or composition of waste so as to neutralize it, make it environmentally safe or less dangerous during transport, suitable for reclamation or storage or reducing its volume. Waste can undergo several treatments. Recycling whose purpose is the protection of the environment is included.
 - Waste treatment includes the process of physical/chemical treatment, incineration of waste, biological treatment and any other treatment methods.
 - Incineration is the heat treatment of waste during the course of which the chemical energy contained in the substances burned is converted into thermal energy. The burned substances are converted into combustion gases and ash. Incombustible organic matter is changed into cinders and ash. Biological treatment is the treatment of waste in special facilities for the breakdown of organic matter using living micro-organisms.
 - Waste disposal consists of the final disposal of waste, on the surface or underground, in a controlled or uncontrolled manner, in accordance with public health, environmental and safety standards. The disposal of non-hazardous waste includes dumping, dumping at sea and other methods of disposal.

4 Data sources identified and possible:

Economy and Environment Ministries.

Communities and local governments.

The items necessary to the indicator calculation are contained at least partially in the Eurostat/OECD questionnaire on the Environment, which can provide methodological complements. These items of calculation will be partly gathered during the MEDSTAT Environment project (12 Mediterranean countries, 1999-2002).

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	-	-	-

108- DESTINATION OF HOUSEHOLD WASTES		
CHAPTER 4 ENVIRONMENT	THEME 4 SOLID, INDUSTRIAL AND HAZARDOUS WASTE	CATEGORY R

1 Definition:

This indicator is defined by the four respective proportions by volume of the production of household waste which are i) put in sanitary landfills ii) incinerated, iii) composted, iv) recovered for recycling (energy or substances).

2 Unit:

Percentage.

3 Methodological description:

Municipal departments usually carry out collection of this waste.

Recycling is liable to occur at various stages: on the site of production itself (within industry or households) or outside, under the form of organised processes or parallel markets.

The nature of recycled substances can be distinguished (metals, paper, glass...).

For incineration, wherever possible, one should state whether or not this is accompanied by energy recovery.

4 Data sources identified and possible:

International: OECD data on the environment, Compendium 1997.

National: Municipalities and local authorities.

Ministries for the Environment.

Eurostat/OECD questionnaire, tab.4, waste.

The items necessary to the indicator calculation are contained at least partially in the Eurostat/OECD questionnaire on the Environment, which can provide methodological complements. These items of calculation will be partly gathered during the MEDSTAT Environment project (12 Mediterranean countries, 1999-2002).

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	-	-	-

109- COLLECTION RATE OF HOUSEHOLD WASTES		
CHAPTER 4 ENVIRONMENT	THEME 4 SOLID, INDUSTRIAL AND HAZARDOUS WASTE	CATEGORY R

1 Definition:

This is the proportion by volume of the total production of household waste that is collected and that enters the treatment/storage processes organised by local authorities.

2 Unit:

Percentage or volume.

3 Methodological description:

“Household waste” includes domestic waste (normal and special), bulky waste and animal corpses. National definitions may vary (see indicator n 100).

4 Data sources identified and possible:

National: Municipalities and local authorities, Ministries for the Environment.

The items necessary to the indicator calculation are contained at least partially in the Eurostat/OECD questionnaire on the Environment, which can provide methodological complements. These items of calculation will be partly gathered during the MEDSTAT Environment project (12 Mediterranean countries, 1999-2002).

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	YES	-	-

110- EMISSIONS OF GREENHOUSE GASSES		
CHAPTER 4 ENVIRONMENT	THEME 5 AIR QUALITY	CATEGORY P

1 Definition:

National aggregate of main man-made Green House Gases (GHG) emissions: carbon dioxide (CO₂), methane (CH₄) and nitrous oxide (N₂O).

2 Unit:

Gigagrammes of CO₂- equivalent per 12 months period.

3 Methodological description:

Estimates of GES emissions are carried out according to IPCC methodology (International Panel one Climatic Change).

CH₄ and N₂O emissions are expressed in CO₂-equivalents using a 20 year Global Warming Potential (GWP) as an adjustment coefficient.

4 Data sources identified and possible:

Secretariat of the United Nation Frame Convention for Climatic Changes (UNFCCC) for the countries of Annex1: FR, IT, ES, GR, MC, SI. Data available by the on line database: <http://www.unfccc.de/>.

Blue Plan /METAP project: «Environmental Performance Indicators», 1998-99, for Southern an Eastern Mediterranean Countries (SEMC) and some countries in the Balkans.

The items necessary to the indicator calculation are contained at least partially in the Eurostat/OECD questionnaire on the Environment, which can provide methodological complements. These items of calculation will be partly gathered during the MEDSTAT Environment project (12 Mediterranean countries, 1999-2002).

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	-	-	-

111- EMISSIONS OF SULPHUR OXIDES		
CHAPTER 4 ENVIRONMENT	THEME 5 AIR QUALITY	CATEGORY P

1 Definition:

This indicator relates to national man-made sulphur oxide emissions (SO_x) expressed in sulphur dioxide (SO₂) equivalent tonnes released.

2 Unit:

Tonnes SO₂ equivalent / year.

3 Methodological description:

Generally, sulphur oxide emissions are calculated with the help of emission factors that reflect the presence of sulphur compounds in different types of fuels and other products:

Emission = (Emission factor) x (Activity level)

Emission are evaluated for stationary and mobile sources:

- Stationary sources may be disaggregated by fuels, facilities or economics sectors and must include power stations (gas, oil and coal), industrial processes (pollutants emitted in manufacturing products from raw materials), non-industrial fuel combustion, and other stationary sources (waste treatment and disposal, sewage treatment, agricultural activities and coal refuse burning).
- Mobile sources may be disaggregated by fuels and types of vehicles and must cover road traffic and other mobile sources (navigation, railways, air traffic and agricultural equipment).

Emissions from natural sources (forest fires, volcanic eruptions) must be excluded.

The European Program of monitoring and evaluation developed a serial of directives elaborated for the calculation and the notification of sulphur oxide national emissions within the framework of Protocols for the Transboundary Long Range Atmospheric Pollution Convention.

4 Data sources identified and possible:

Secretariat of United Nations Framework Convention on Climatic Change (UNFCCC).

National reports within the framework of International Conventions.

The items necessary to the indicator calculation are contained at least partially in the Eurostat/OECD questionnaire on the Environment, which can provide methodological complements. These items of calculation will be partly gathered during the MEDSTAT Environment project (12 Mediterranean countries, 1999-2002).

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	-	-	-

112- EMISSIONS OF NITROGEN OXIDES		
CHAPTER 4 ENVIRONMENT	THEME 5 AIR QUALITY	CATEGORY P

1 Definition:

This indicator measures the national man-made nitrous oxides (NO_x) emissions, expressed in nitrous dioxide (NO₂) equivalent tonnes released.

2 Unit:

Tonnes of NO₂ equivalent / year.

3 Methodological description:

Generally, nitrogen oxide emissions are calculated with the help of emission factors that reflect the presence of nitrogen compounds in different types of fuels and other products:

Emission = (Emission factor) x (Activity level)

Emission are evaluated for stationary and mobile sources:

- Stationary sources may be disaggregated by fuels, facilities or economics sectors and must include power stations (gas, oil and coal), industrial processes (pollutants emitted in manufacturing products from raw materials), non-industrial fuel combustion, and other stationary sources (waste treatment and disposal, sewage treatment, agricultural activities and coal refuse burning).
- Mobile sources may be disaggregated by fuels and types of vehicles and must cover road traffic and other mobile sources (navigation, railways, air traffic and agricultural equipment).

Emissions from natural sources (such as lightning) must be excluded.

The European Program of monitoring and evaluation developed a serial of directives elaborated for the calculation and the notification of nitrogen oxide national emissions within the framework of Protocols for the transboundary long-range atmospheric pollution convention.

4 Data sources identified and possible:

Secretariat of United Nations Framework Convention on Climatic Change (UNFCCC).

National reports within the framework of International Conventions.

The items necessary to the indicator calculation are contained at least partially in the Eurostat/OECD questionnaire on the Environment, which can provide methodological complements. These items of calculation will be partly gathered during the MEDSTAT Environment project (12 Mediterranean countries, 1999-2002).

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	-	-	-

113- CONSUMPTION OF OZONE DEPLETING SUBSTANCES		
CHAPTER 4 ENVIRONMENT	THEME 5 AIR QUALITY	CATEGORY P

1 Definition:

This indicator is defined by the total quantity of organic substances consumed annually containing chlorine or bromine that deplete the stratospheric ozone layer.

2 Unit:

Tons per year.

3 Methodological description:

Consumption corresponds to the total production and imports minus exports of substances listed and controlled within the meaning of the Montreal protocol.

The indicator is expressed in tons of substances depleting the ozone layer weighted by their depleting potential.

The organic substances taken into account are those aimed to the appendices A, B, C, E of the Montreal protocol: CFCs, Halons, the other CFCs, carbon tetrachloride, methyl chloroform, HCFCs and methyl bromide.

4 Data sources identified and possible:

The secretariat of the Montreal protocol diffuses the values of the ozone depleting potentials for each product controlled ([http://www.unep.org/ozone /](http://www.unep.org/ozone/)).

UNEP, Ozone Secretariat, 1999. Production and Consumption of Ozone Depleting Substances 1986 - 1998.

The items necessary to the indicator calculation are contained at least partially in the Eurostat/OECD questionnaire on the Environment, which can provide methodological complements. These items of calculation will be partly gathered during the MEDSTAT Environment project (12 Mediterranean countries, 1999-2002).

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	-	-	-

114- FREQUENCY OF EXCESS OVER AIR STANDARD (OZONE)		
CHAPTER 4 ENVIRONMENT	THEME 5 AIR QUALITY	CATEGORY E

1 Definition:

This is the number of days that undergo peak pollution by tropospheric ozone over one year.

2 Unit:

Number of peaks days / year/ measurement stations

3 Methodological description:

The statistic involves each ozone monitoring station in the country.

This has to do with accounting for each station, the number of days that have undergone peak pollution (at least exceeding recommended levels).

In the absence of national standards, the two following thresholds will be taken

- An average over one hour in excess of 180 $\mu\text{g}/\text{m}^3$, which is the population information threshold in Europe (EEC Directive 92/72).
- An average over one hour in excess of 360 $\mu\text{g}/\text{m}^3$, which is the alarm level.

Each of the two preceding threshold values will be subject to a special frequency, so that the indicator is made up of 2 sub-indicators.

Ozone has been selected for tracking because of its ability to reflect air pollution at a low cost.

4 Data sources identified and possible:

Health or Environment Ministries; Air monitoring network of cities

The items necessary to the indicator calculation are contained at least partially in the Eurostat/OECD questionnaire on the Environment, which can provide methodological complements. These items of calculation will be partly gathered during the MEDSTAT Environment project (12 Mediterranean countries, 1999-2002).

5 Indicator geographical coverage

Very often it is difficult to try and aggregate these statistics at national level. However, it may be useful to calculate each year the number of measuring stations, which have exceeded those threshold levels at least once in the year.

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	-	-	YES

115- EXPENDITURE ON AIR POLLUTION ABATEMENT		
CHAPTER 4 ENVIRONMENT	THEME 5 AIR QUALITY	CATEGORY R

1 Definition:

This indicator is defined as the investment and current expenditure actually incurred to prevent, reduce and eliminate air pollution, and carried out by public and private sectors. For the public sector, the expenditure relating to the general administration, the control of actions previously enumerated, as well as the monitoring of the environment, is included. Note: Initially, the indicator is limited to the public sector. The evaluation of private expenditure will be carried out later unless it is available immediately.

2 Unit:

US dollars.

3 Methodological description:

A) Expenditure

Expenditure for air Pollution Abatement and Control (PAC) must take into account (refer to the methodology of Eurostat-OECD, questionnaire 1998 sent to the countries):

- Monitoring and regulation of atmospheric pollution;
- Prevention of air pollution linked to the production process;
- Installation of non-polluting technologies (clean technologies and clean products used in the production process);
- Elimination of emissions at the source: dust removal equipment, filters.

B) Public and private sector

Public sector: federal and local governments and communities; the public sector includes expenditure by government agencies and other public bodies providing PAC services (e.g. sewage treatment plants) financed or controlled by municipalities.

Private sector: business sector + households.

Business sector: (based on ISIC rev. 3/NACE rev. 1) agriculture, forestry, hunting and fishing (ISIC 01-05); mining and quarrying (ISIC 10-14); manufacturing (ISIC 15-37); electricity, gas and water (ISIC 40-41); construction (ISIC 45); transport, storage and communications (ISIC 60-64); other services (ISIC 50-52, 65-67 and 9 except public sector as defined above).

Households: households (as consumers).

C) Mode of calculation

Expenditure is the flow of funds that reflect the total value of the capital good in the year of acquisition and must be clearly distinguished from annual costs that take into account the lifetime of capital goods.

The public expenditure of PAC gathers as well the expenditure of federal and local governments than those of communities. The net amount of expenditure by the public sector is calculated according to the formula: (Investment expenditure + Current

expenditure + Subsidies to private sector) - (Receipts from by-products of PAC activity + Fees/charges from private sector).

The net amount of expenditure by the private sector is calculated according to the formula: (Investment expenditure + Current expenditure + Fees/charges to public sector) - (Receipts from by-products of PAC activity + Subsidies from public sector).

Investment expenditure: outlays (purchases and own-account production) on land and on additions of new durable goods to the stock of fixed assets for PAC. There are two fundamental types of PAC investments:

- Curative/supplementary/end-of-pipe investments: These investments do not affect the production process itself; they only serve to abate pollution stemming from the production process and the entire outlays should enter as PAC expenditure;
- Process-integrated investments: These are investments that lead to a modified/adapted production process with the primary aim to reduce pollution. When a new production process is introduced, the PAC expenditure consists of the outlays over and above what would have been paid for a cheaper, viable, but less environmentally benign plant. Where an existing plant is modified, the environmental investment is equal to the total outlays for the modification for environmental purposes.

Current expenditure: PAC outlays for i) own production of environmental services: wages and salaries, rents, energy, maintenance expenditure and other intermediate inputs; and ii) environmental services and specific goods bought in from the market (e.g. a firm has its waste collected by a specialised enterprise).

Public subsidies: Financial transfers from the public sector to the private sector for PAC purposes.

Receipts from by-products: Where PAC activity entails receipts from selling a by-product of this activity (e.g. from the sale of processed waste), these receipts should be deducted from gross expenditure incurred. Note that:

- The receipts considered here are not revenues of specialised firms whose primary purpose is to deliver some environmental service or good. Receipts relate to revenues from by-products of PAC activity of non-specialised firms or the public sector which help to cover some of the cost for PAC;
- Receipts accruing to the public sector for PAC activity (e.g. fees for waste removal) do not enter this category as they arise directly from carrying out the PAC activity and not from selling a by-product.

Fees: Financial transfers from the private sector to the public sector. Only taxes that are directly used for financing PAC expenditure by the public sector are included.

Household expenditure: it is suggested to include only the following items:

- Purchase, operation and maintenance of air pollution control devices for motor vehicles. Operation and maintenance expenditure include items such as price differentials for unleaded petrol or service costs for proper adjustment of engines;
- Payments by households for the provision of PAC services by private firms.

Note that for households no breakdown into investment and current expenditure is foreseen as, in line with national accounts, household expenditure on durable goods is not considered as investment.

4 Data sources identified and possible:

Ministries of Economy and Environment.

The items necessary to the indicator calculation are contained at least partially in the Eurostat/OECD questionnaire on the Environment, which can provide methodological complements. These items of calculation will be partly gathered during the MEDSTAT Environment project (12 Mediterranean countries, 1999-2002).

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	-	-	-

116- SHARE OF CLEAN FUELS CONSUMPTION IN TOTAL MOTOR FUELS CONSUMPTION		
CHAPTER 4 ENVIRONMENT	THEME 5 AIR QUALITY	CATEGORY R

1 Definition:

This is the proportion of fuels consumed by the motor vehicle fleet, which is made up of clean fuels.

2 Unit:

Percentage.

3 Methodological description:

“Clean” fuels include: unleaded petrol, liquid petroleum gas (LPG) and pressurized gas.

The motor vehicle fleet is made up of the passenger car fleet and the truck fleet.

Annual consumption statistics (national income accounting) should supply the components for calculating this indicator, using special processing (especially the conversion of values into the equivalent volumes).

Consumption is equal to production + imports – exports – (+/-) stock variations.

4 Data sources identified and possible:

National Statistics Department.

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	-	-	-

117- SHARE OF AGGLOMERATIONS OVER 100 000 INHABITANTS EQUIPPED WITH AN AIR POLLUTION MONITORING NETWORK		
CHAPTER 4 ENVIRONMENT	THEME 5 AIR QUALITY	CATEGORY R

1 Definition:

Portion of agglomeration with more than 100 000 inhabitants with an air pollution measurement network available.

2 Unit:

Percentage.

3 Methodological description:

This has to do with estimating the proportion of cities that have a network of fixed stations for air measurement available. The number of stations and the measurements monitored (SO₂, Particles, NO₂, Lead, Ozone) should be stated. One could also usefully refer to the description set out in the OECD-Eurostat questionnaire, Environment, Air Addendum, 1998.

4 Data sources identified and possible:

Ministries for Public Health or Environment; Cities Air Monitoring Network.

The items necessary to the indicator calculation are contained at least partially in the Eurostat/OECD questionnaire on the Environment, which can provide methodological complements. These items of calculation will be partly gathered during the MEDSTAT Environment project (12 Mediterranean countries, 1999-2002).

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	-	-	-

118- NUMBER OF SITES WITH HIGH RISK		
CHAPTER 4 ENVIRONMENT	THEME 6 NATURAL AND TECHNOLOGICAL RISKS	CATEGORY P

1 Definition:

This indicator is defined as the number of high-risk sites for the environment identified in national regulations.

2 Unit:

Number.

3 Methodological description:

The indicator measures the number of facilities deemed to be potentially dangerous in accordance with national regulations.

This notion depends to a very great extent on the regulations in force in the country. It would be useful to give references to the wording of laws, which define the businesses or company sites within the “at risk” class.

For example, it is widely acknowledged that nuclear sites, hydroelectric dams, underground hydrocarbon and gas storage sites, chemical and petro-chemical industrial facilities, are industrial facilities “at risk”. Certain trade activities require the use of storage sites for dangerous substances and may also be classed in the “at risk” category.

In European countries, the Seveso II Directive supplies a reference framework for the definition of certain risks and on the obligations deriving thereunder.

The number of high-risk sites has been preferred to the “proportion of high risk companies” because it better expresses the increase of technological risks on a given territory and it depends less on the manner in which the total number of companies is calculated.

At a later stage, it will be useful to assess the proportion of those high risk sites which are actually subject to risk prevention plans and measures (danger studies, prevention plans, ...) implemented by the management of those facilities.

4 Data sources identified and possible:

Ministries for Industry or Environment.

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	-	-	-

119- ECONOMIC IMPACT OF NATURAL DISASTERS		
CHAPTER 4 ENVIRONMENT	THEME 6 NATURAL AND TECHNOLOGICAL RISKS	CATEGORY E

1 Definition:

This indicator is defined as the annual cost of natural disasters at national or local levels, as a percentage of GNP.

2 Unit:

Percentage.

3 Methodological description:

Natural disasters may affect a whole country or restricted areas in its territory. Natural disasters taken into account are: storms and their direct manifestations (floods, hail, winds, tidal waves), lightning, drought, fires, ground movement (landslides, avalanches) and manifestations of the earth's internal energy (earthquakes, volcanic eruptions).

The economic cost of the disaster must take account of the physical damage caused at the time it takes place and must take into consideration estimates in terms of slowing of economic activity.

4 Data sources identified and possible:

Ministries for the Economy.

Insurance companies.

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	YES	-	-

120- BURNT AREA PER YEAR		
CHAPTER 4 ENVIRONMENT	THEME 6 NATURAL AND TECHNOLOGICAL RISKS	CATEGORY E

1 Definition:

This indicator is defined by the total areas burnt, which includes forests, scrub and pasture. When the burnt area is spoken of, that is the total area covered by the fire.

2 Unit:

Percentage.

3 Methodological description:

Burnt areas are assessed after every fire by local or national authorities that keep these figures in their archives.

4 Data sources identified and possible:

FAO /ECE, 1998, «Statistiques des incendies de forêt, 1994-1996», Bulletin du bois, Vol. L, No 4, 19p.

FAO /CIHEAM, 1998, «Utilisation des données sur les incendies de forêts pour la gestion de risque», Regional Workshop in Hammamet, Tunisia, from 24 to 28 March 1998.

Forest services of the countries.

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	YES	-	-

121- EXISTENCE OF INTERVENTION PLANS		
CHAPTER 4 ENVIRONMENT	THEME 6 NATURAL AND TECHNOLOGICAL RISKS	CATEGORY R

1 Definition:

This indicator has the purpose of stating the existence or otherwise, within a country's legislation, of regulations setting up an obligation to implement one or more special response plans for sites with major technological risks in order to best organise the application of assistance and control resources in the case of an accident.

2 Unit:

Yes / No, if so, join a descriptive sheet.

3 Methodological description:

Certain countries allow, in their legislation, for crisis management procedures for some facilities that present major technological risks.

These procedures may require an obligation for the state representative, to liaise with the appropriate authorities, to draw up a response plan for sites with major risks.

Such response plans address the hypothesis of an accident whose consequences may affect the outside environment. In order to better organise the application of assistance and control resources, they state the roles of the various actors on the intervention site and state the terms for conveying an alarm.

These response plans should be operating documents whose efficiency largely depends on the prior information of the population liable to be affected and to have to react in the case of an accident.

The facilities involved by these response plans can be: nuclear sites, hydroelectric dams, underground storage sites for hydrocarbons and gases, chemical and petrochemical industrial facilities.

Mentioning whether or not this type of procedure is required under national regulations should be necessary.

If this is the case, the sheet can be filled out by supplying the data on the assessment of the actual application of the regulations (percentage of plans passed in relation to the total number of sites subject to the requirements, for example).

This indicator should be compared with indicator n°118, which lists the total number of sites at risk, of which only some (those sites with major risks) are concerned by this indicator which involves measures applied by state authorities.

4 Data sources identified and possible:

Ministries for Industry or Environment.

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	-	-	-

122- NUMBER OF DIRECT EMPLOYMENTS LINKED TO THE ENVIRONMENT		
CHAPTER 5	THEME 1	CATEGORY
THE SUSTAINABLE DEVELOPMENT: ACTORS AND POLICIES	ACTORS OF THE SUSTAINABLE DEVELOPMENT	R

1 Definition:

This indicator is defined as the number of jobs directly connected to the environment in services, in industry and in farming expressed as a percentage of the total number of jobs.

2 Unit:

Number.

3 Methodological description:

Jobs directly connected with the environment involve all public and private bodies, which produce goods and services used directly for preserving the environment or for controlling pollution. These are also jobs in public bodies in charge of measuring, restricting, limiting or correcting damage caused to the environment. For example these involve: water, air and soil pollution, in addition to issues connected with waste and noise.

The standardised and harmonised European statistical nomenclature for environmental protection activities drawn up by the UN-EEC and Eurostat in March 1994 brings together environment-related activities into nine topics:

- Protection of the ambient air and climate
- Management of wastewater
- Management of waste
- Protection of the grounds and underground waters
- Reduction of the noises and vibrations
- Protection of the biodiversity and landscapes
- Protection against radiations
- Research and development
- Other activities of environmental protection

4 Data sources identified and possible:

Employment Agency.

Ministry of Environment.

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	-	-	-

123- NUMBER OF ASSOCIATIONS INVOLVED IN ENVIRONMENT AND/OR SUSTAINABLE DEVELOPMENT		
CHAPTER 5 THE SUSTAINABLE DEVELOPMENT: ACTORS AND POLICIES	THEME 1 ACTORS OF THE SUSTAINABLE DEVELOPMENT	CATEGORY R

1 Definition:

This indicator is defined by the number of national or local associations that have the purpose of promoting sustainable development or conserving the environment in general or of one of its components in particular (Fauna, Flora, habitats, air, waste, etc.).

2 Unit:

Number.

3 Methodological description:

By an association is meant any coalition, or any voluntary grouping set up by several persons who unite for a common activity. An association need not operate for purpose of gain or profit in which case it is deemed to be a company.

4 Data sources identified and possible:

Ministry for Environment.

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	YES	-	-

124- NUMBER OF ENTERPRISES ENGAGED IN "ENVIRONMENT MANAGEMENT" PROCESSES		
CHAPTER 5 THE SUSTAINABLE DEVELOPMENT: ACTORS AND POLICIES	THEME 1 ACTORS OF THE SUSTAINABLE DEVELOPMENT	CATEGORY R

1 Definition:

This indicator is defined as number of companies who have committed themselves to environmental initiatives. These initiatives are formalised by one of the current tools: The ISO 14000 standard series or the European Environmental Management System (SMEA or eco-audit).

2 Unit:

Number.

3 Methodological description:

The *ISO 14000 series* is a group of standards for environmental management, which have been developed by the International Standards Organisation (ISO), one of the world's main bodies for drafting voluntary standards. These standards offer a framework of management, of measurement, of assessment and of auditing that are acknowledged all over the world. Instead of setting goals in environmental performance terms, they represent to other bodies a means of assessing and controlling the environmental impact of their businesses, products and services. The ISO has given these standards enough flexibility for them to be applied by any organisations, regardless of size and area of business. ISO 14000 standards cover:

- Environmental management systems;
- Environmental auditing;
- Environmental labelling and declarations;
- The assessment of environmental performance;
- Life-cycle analyses.

The *European Environmental Management and Audit system* is also based on a voluntary approach by companies. This has the goal of promoting the continual improvement of the environmental performance of organisations which take part by the undertaking they make to define their environmental policy, to analyse the effect of their business on the environment, to draw up an environmental program and an environmental management system, to carry out environmental audits and to draft an environmental declaration accessible to the public.

Companies committed to these steps are registered or certified by an independent third party, called a "registrar". The "registrar" assesses and puts to an audit the company environmental management system (EMS) in order to check its compliance with the demands of the standard. Nevertheless, in the case of the ISO14000 series, some companies are just declaring themselves their EMS to be in compliance (this is "self-declaration").

4 Data sources identified and possible:

International or national "registrar" organizations.

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	-	-	-

125- PUBLIC EXPENDITURE ON ENVIRONMENTAL PROTECTION AS A PERCENT OF GDP		
CHAPTER 5 THE SUSTAINABLE DEVELOPMENT: ACTORS AND POLICIES	THEME 2 POLICIES AND STRATEGIES OF THE SUSTAINABLE DEVELOPMENT	CATEGORY R

1 Definition:

This indicator is defined as the amount of public expenditure devoted to environmental protection expressed as a percentage of Gross Domestic Product (GDP).

Environmental protection expenditure is the expenditure actually incurred to prevent, reduce and eliminate pollution, and other environmental damage. General administration expenditure, the costs of monitoring previously mentioned activities, and the costs of monitoring the environment, are all included.

2 Unit:

Percentage.

3 Methodological description:**A) Expenditure**

Environmental protection expenditure is defined as expenditure incurred as a direct consequence of industrial emissions and which are principally concerned with environmental protection. They include: expenditure on pollution abatement and control and on protection of nature.

- Pollution abatement and control (PAC) expenditure relates to all activity directed at the prevention, reduction and elimination of pollution or nuisances resulting from production processes or from the consumption of goods and services. Public sector, administrative, monitoring, and enforcement expenditure are included.
- Expenditure on nature protection includes expenditure used for the protection and rehabilitation of species, landscapes and habitats, national parks and wildlife, measures to prevent forest fires as well as for monitoring, management and administration.

Items not included: development of natural resources such as drinking water supplies; expenditure not directly aimed at environment protection, but which meets mainly technical, hygiene or internal security needs.

The following expenditure categories should be taken into account (refer to the methodology of Eurostat-OECD, questionnaire 1998 sent to the countries):

1. Waste: For the purposes of the questionnaire wastes include municipal waste as well as industrial waste, which in turn include hazardous waste, ordinary waste and inert or heavy waste (waste from the extractive industries and power stations, demolition waste). It includes sewage sludge, but excludes wastewater. PAC expenditure for waste should comprise:

- Preventive measures to limit the amounts and harmful effects of waste generated by the final consumption of goods and to limit the production of industrial waste or lessen its harmful effects;

- Collection and transport;
- Treatment and disposal;
- Exploitation of waste: unprofitable operations with the purpose of replacing the disposal of waste (i.e. discharge into the environment) by processes for reinserting the corresponding objects or substances into the economic cycle (in the form of raw material or energy) and recovery (process integrated with activity concerned);
- Regulation and monitoring.

2. Water and Soil: PAC expenditure for water and soil should comprise:

- Collection and purification of waste water (in collective and public as well as individual systems): Transport of waste water, storm water systems, sewerage networks; waste water treatment plants (including pre-treatment plants and special plant for waste water from certain industrial processes);
- Combating pollution of the marine environment, including measures to combat discharges into the sea and the raising of wrecks (e.g. clean-up of oil spills);
- Prevention, control and monitoring of surface water pollution;
- Combating pollution of inland surface waters other than collection and purification of waste water;
- Prevention and combating of thermal pollution of water;
- Abatement of groundwater pollution;
- Abatement of soil pollution, including measures to combat uncontrolled releases and tipping and the resorption of pollutants.
- Regulation and monitoring.
- Expenditure related to the supply of drinking water should not be included.

3. Air: PAC expenditure for air should comprise:

- Monitoring and regulation of atmospheric pollution;
- Prevention of air pollution linked to the production process; installation of non-polluting technologies (clean technologies and clean products used in the production process);
- Elimination of emissions at the source: dust removal equipment, filters.

4. Noise: PAC expenditure for noise should comprise:

- Regulation and monitoring;
- Preventive action at source: soundproofing of machinery; use of soundproofed machinery and equipment;
- Construction of anti-noise installations: construction of buffer-zones or anti-noise screens around airports or other sources of noise; soundproofing work.

Excluded are measures mainly aimed at reducing industrial process noise for workplace protection.

5. Other: PAC expenditure related to other types of pollution control such as abatement and control of non-radioactive radiation, multi-functional PAC activity and general administration of the environment.

B) Public and private sector

Public sector: federal and local governments and communities; the public sector includes expenditure by government agencies and other public bodies providing PAC services (e.g. sewage treatment plants) financed or controlled by municipalities.

Private sector: business sector + households.

- Business sector: (based on ISIC rev. 3/NACE rev. 1) agriculture, forestry, hunting and fishing (ISIC 01-05); mining and quarrying (ISIC 10-14); manufacturing (ISIC 15-37); electricity, gas and water (ISIC 40-41); construction (ISIC 45); transport, storage and communications (ISIC 60-64); other services (ISIC 50-52, 65-67 and 9 except public sector as defined above).
- Households: households (as consumers).

C) Mode of calculation

Expenditure is the flow of funds that reflect the total value of the capital good in the year of acquisition and must be clearly distinguished from annual costs that take into account the lifetime of capital goods.

- The public expenditure of LCP gathers as well the expenditure of federal and local governments than those of communities. The net amount of expenditure by the public sector is calculated according to the formula: (Investment expenditure + Current expenditure + Subsidies to private sector) - (Receipts from by-products of PAC activity + Fees/charges from private sector).
- The net amount of expenditure by the private sector is calculated according to the formula: (Investment expenditure + Current expenditure + Fees/charges to public sector) - (Receipts from by-products of PAC activity + Subsidies from public sector).

Investment expenditure: outlays (purchases and own-account production) on land and on additions of new durable goods to the stock of fixed assets for PAC. There are two fundamental types of PAC investments:

- Curative/supplementary/end-of-pipe investments: these investments do not affect the production process itself; they only serve to abate pollution stemming from the production process and the entire outlays should enter as PAC expenditure;
- Process-integrated investments: these are investments that lead to a modified/adapted production process with the primary aim to reduce pollution. When a new production process is introduced, the PAC expenditure consists of the outlays over and above what would have been paid for a cheaper, viable, but less environmentally benign plant. Where an existing plant is modified, the environmental investment is equal to the total outlays for the modification for environmental purposes.

Current expenditure: PAC outlays for i) own production of environmental services: wages and salaries, rents, energy, maintenance expenditure and other intermediate inputs; and ii) environmental services and specific goods bought in from the market (e.g. a firm has its waste collected by a specialised enterprise).

Public subsidies: Financial transfers from the public sector to the private sector for PAC purposes.

Receipts from by-products: Where PAC activity entails receipts from selling a by-product of this activity (e.g. from the sale of processed waste), these receipts should be deducted from gross expenditure incurred. Note that:

- The receipts considered here are not revenues of specialised firms whose primary purpose is to deliver some environmental service or good. Receipts relate to revenues from by-products of PAC activity of non-specialised firms or the public sector which help to cover some of the cost for PAC;
- Receipts accruing to the public sector for PAC activity (e.g. fees for waste removal) do not enter this category as they arise directly from carrying out the PAC activity and not from selling a by-product.

Fees: Financial transfers from the private sector to the public sector. Only taxes that are directly used for financing PAC expenditure by the public sector are included.

Household expenditure: it is suggested to include only the following items:

- a) Purchase, operation and maintenance of air pollution control devices for motor vehicles. Operation and maintenance expenditure include items such as price differentials for unleaded petrol or service costs for proper adjustment of engines;
- b) Sewage treatment by private households (e.g. septic tanks);
- c) Payments by households for the provision of PAC services by private firms.

Note that for households, no breakdown into investment and current expenditure is foreseen as, in line with national accounts, household expenditure on durable goods is not considered as investment.

The GDP is an aggregate of the National account providing a measurement of the added value created by the productive activities of the economy inside the country.

4 Data sources identified and possible:

OECD; Eurostat.

National statistical organizations.

The items necessary to the indicator calculation are contained at least partially in the Eurostat/OECD questionnaire on the Environment, which can provide methodological complements. These items of calculation will be partly gathered during the MEDSTAT Environment project (12 Mediterranean countries, 1999-2002).

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	-	-	-

126- EXISTENCE OF ENVIRONMENT NATIONAL PLANS AND/OR SUSTAINABLE DEVELOPMENT STRATEGIES		
CHAPTER 5	THEME 2	CATEGORY
THE SUSTAINABLE DEVELOPMENT: ACTORS AND POLICIES	POLICIES AND STRATEGIES OF THE SUSTAINABLE DEVELOPMENT	R

1 Definition:

The purpose of this indicator is to present National Plans on the Environment or a national strategy on sustainable development.

2 Unit:

Yes / No, if so, join a descriptive sheet of plan or strategy.

3 Methodological description:

The publication of such documents demonstrates a willingness to recognise environmental problems and a general awareness of sustainable development at national level. The documents are based on environmental and sustainable development appraisals made by numerous experts and institutions as well as on the priorities that have been established.

Particular mention should be made of Agenda21, agreed after the Conference of Rio in 1992. It would be useful to compile a list of reference documents.

4 Data sources identified and possible:

Government services.

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	-	-	-

127- NUMBER OF AGENDAS 21 ADOPTED BY LOCAL AUTHORITIES		
CHAPTER 5 THE SUSTAINABLE DEVELOPMENT: ACTORS AND POLICIES	THEME 2 POLICIES AND STRATEGIES OF THE SUSTAINABLE DEVELOPMENT	CATEGORY R

1 Definition:

This indicator is defined by the number of Agenda 21 adopted by local authorities within a country.

2 Unit:

Number.

3 Methodological description:

In Rio in 1992, the United Nations Conference on Environment and Development (UNCED) adopted the principles and aims of Agenda 21.

States undertook to co-operate and to create, according to their special circumstances, conditions that are able to guarantee sustainable development for the future.

Certain states have formalised these terms in national programmes that define priorities and the initiatives to be carried out, in the form of official published Agenda 21. These types of national documents are not listed here, but are included in indicator n°126.

In parallel, some local authorities (regions, counties, cities, boroughs) may also commit themselves towards the establishment of such local Agenda 21 initiatives, involving local actors in a territorial project. This is the number of initiatives in the country that are to be listed here.

4 Data sources identified and possible:

Ministry for Environment.

Association of territorial communities.

National Commission for sustainable development.

Comities 21.

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	YES	YES	-

128- OPENNESS RATE OF GDP		
CHAPTER 6 EXCHANGES AND COOPERATION IN THE MEDITERRANEAN	THEME 1 INTERNATIONAL TRADE, FREE TRADE ZONE AND ENVIRONMENT	CATEGORY P

1 Definition:

This indicator is defined as total exports and imports of goods and services expressed as a percentage of national GDP.

2 Unit:

Percentage.

3 Methodological description:

Exports consist of the sale, barter, or gift or grant, of goods and services from residents of a given economic to non-residents.

Imports consist of the purchase, barter, or receipt of gifts or grants of goods and services, by residents from non-residents.

Goods include general merchandise, goods for processing, major repairs on goods, goods purchased in ports by carriers, and non-monetary gold.

Services include transportation, communication, travel, construction services, insurance, financial services, computer and information services, royalties and license fees, other business services, personal, cultural and recreational services, and government services.

In general, exports and imports of goods are recorded at the market value of the goods at the customs frontier of the economy from which they are exported.

GDP is an aggregate of National Income Accounting providing a measurement of the added value created by the income earning activity in the economy within a country.

The GDP used for this indicator is the sum of the final stage of goods and services (excluding intermediate consumption) valued at purchase price, less the value of imported goods and services. "The purchase price" of a product relates to production costs plus net taxes imposed on the product, plus commercial margins, plus transport charges and non-deductible VAT.

4 Data sources identified and possible:

National accounts of goods and services imports and exports.

National current balance of payment.

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	-	-	-

129- NET MIGRATION RATE		
CHAPTER 6 EXCHANGES AND COOPERATION IN THE MEDITERRANEAN	THEME 2 OTHERS MEDITERRANEAN EXCHANGES	CATEGORY P

1 Definition:

At national level, the indicator is defined as the ratio of net immigration to average population for a given period.

At sub-national level, the indicator is calculated from the difference between the recorded population growth rate in the area and the natural growth rate, again for a given period.

2 Unit:

Number per thousand inhabitants.

3 Methodological description:

Net immigration as transboundary population movement is the difference between the number of immigrants and the number of emigrants.

The population growth rate used is the one that is calculated from population surveys (censuses).

Natural growth rate is the difference between birth rate and mortality rate. Figures at national and sub-national level are those found in births, marriages and deaths registers.

4 Data sources identified and possible:

«World population prospects: The 1998 revision», Population Division, Department of Economic and Social Affairs of the United Nations secretariat.

Report to indicator n°1 for the population data.

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	YES	-	-

130- PUBLIC DEVELOPMENT ASSISTANCE COMING FROM ABROAD		
CHAPTER 6	THEME 3	CATEGORY
EXCHANGES AND COOPERATION IN THE MEDITERRANEAN	MEDITERRANEAN COOPERATION IN THE FIELDS OF ENVIRONMENT AND SUSTAINABLE DEVELOPMENT	R

1 Definition:

This indicator measures the amount of public assistance for development received by the country in the year involved.

2 Unit:

Million US dollars.

3 Methodological description:

Public assistance for development received by the country includes:

- Assistance / grants / subsidies.
- Soft loans (for example World Bank or IMF loans).

It can come from multilateral or bilateral cooperation.

It can take the form of direct financial transfers in kind (foodstuffs, equipment) or the wages of experts based in the country (technical co-operation). Converting all these transfers into current US\$ equivalents should be attempted.

Private aid (decentralised cooperation, NGOs) is not accounted for here because of the greater difficulty in identifying same, but this may also turn out to be highly significant also.

4 Data sources identified and possible:

Ministries of Foreign Affairs or Cooperation.

Embassies and permanent representations of the countries and the European Union.

Financial backers of multilateral fund financial backers (Banks: World, African of Development, BERD, program and agencies of the United Nations UNDP, international funds...).

OECD.

5 Indicator geographical coverage

MARINE AREAS	NATIONAL LEVEL	MEDITERRANEAN COASTAL REGION (NUTS 3)	COASTAL STRIP	MEDITERRANEAN SPOT
-	YES	-	-	-

