

1) INFORMATIVE ELEMENTS**Exercise 1**

Mark the following informative elements with numbers according to their grade of aggregation/communication (increasing order)

• Protected terrestrial areas	
• The level of human (civil and agricultural) contamination of bathing waters	
• Ambient Air quality: PM10 particulate matter	

Exercise 2

Mark the following informative elements with numbers according to their grade of analytic/objectivity (increasing order)

• Road accident number	
• Marine trophic index (TRIX) (To determine the trophic index of coastal seawater)	
• Municipal waste pro-capite	

Exercise 3

Choose the category of following informative elements:

Informative Elements		Parameter	Indicator	Index
1	Number of daily overcomings of alarm limit of Ozone concentration			
2	CO ₂ concentration in atmosphere			
3	Greenhouses gas emissions (CO ₂ , CH ₄ , N ₂ O, HFC _s , PFC _s , SF ₆)			
4	Use of pesticides			
5	Number of livestock breeding farms			
6	Number of farms implementing ecologically oriented			
7	Eco-efficiency in agriculture			
8	Final energy intensity (Amount of energy per GDP)			
9	Gross electricity production from renewable sources			
10	Energy product prices			
11	Passenger transport demand and intensity			
12	Tourist intensity			
13	Proportion of vehicle fleet meeting certain emission standards			
14	Air temperature			
15	Number of tourist arrivals per population			
16	State of approval of the municipal noise abatement plans			
17	Index of bacteriological quality (IQB)			
18	Number of NUNI-EN-ISO 14001 certifications			
19	Number of network laboratories for environmental controls			
20	Bathing water quality			
21	Number of environmental-related publications			
22	Radon indoor concentration			
23	Chemical state of underground waters (CSUW)			
24	Potential years of life lost (PYLL) for road accidents			
25	Level of threat for animal species			
26	Protected terrestrial areas			
27	Human pressure on wetlands of international importance			
28	Number of forests fires			
29	Defoliation of the tree canopies of forest species			
30	Number of landfills			

Exercise 4**Find and underline the informative elements contained in the following article**

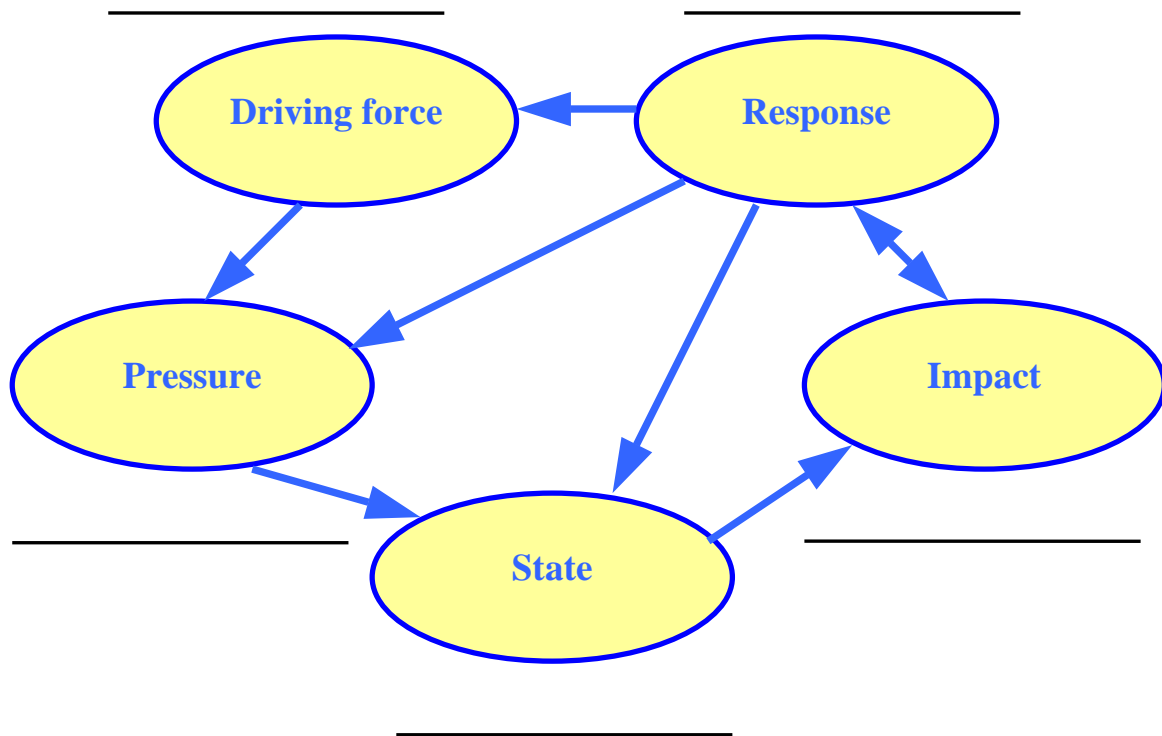
With the increase in Egypt's population by more than a double and a half over the last forty years, the increase in population density in urban areas, especially in metropolitan cities, and the change in the consumption patterns in urban and rural areas alike, many pressures on the environment and public health have exacerbated, including the solid waste problem, whose harmful symptoms became clearly evident throughout the country. Existing conventional waste management methods have become incapable of meeting society needs with its different groups, in terms of maintaining a reasonable level of cleanliness, controlling health hazards and adverse environmental impact and providing a generally civilized appearance for the country. Total waste quantities collected never exceeded in the best scenarios 77% of the wastes generated. Large amounts of wastes piled up in streets and vacant areas between buildings, in addition to the spread of informal dumpsites in a number of central areas. Open burning as a means of waste disposal has become one of the main sources of air pollution in Egypt. The government had, therefore, to take action to find a suitable solution for this aggravating problem and to implement the integrated waste management initiated in 2001.

2) INDICATORS FRAMEWORK

Exercise 5

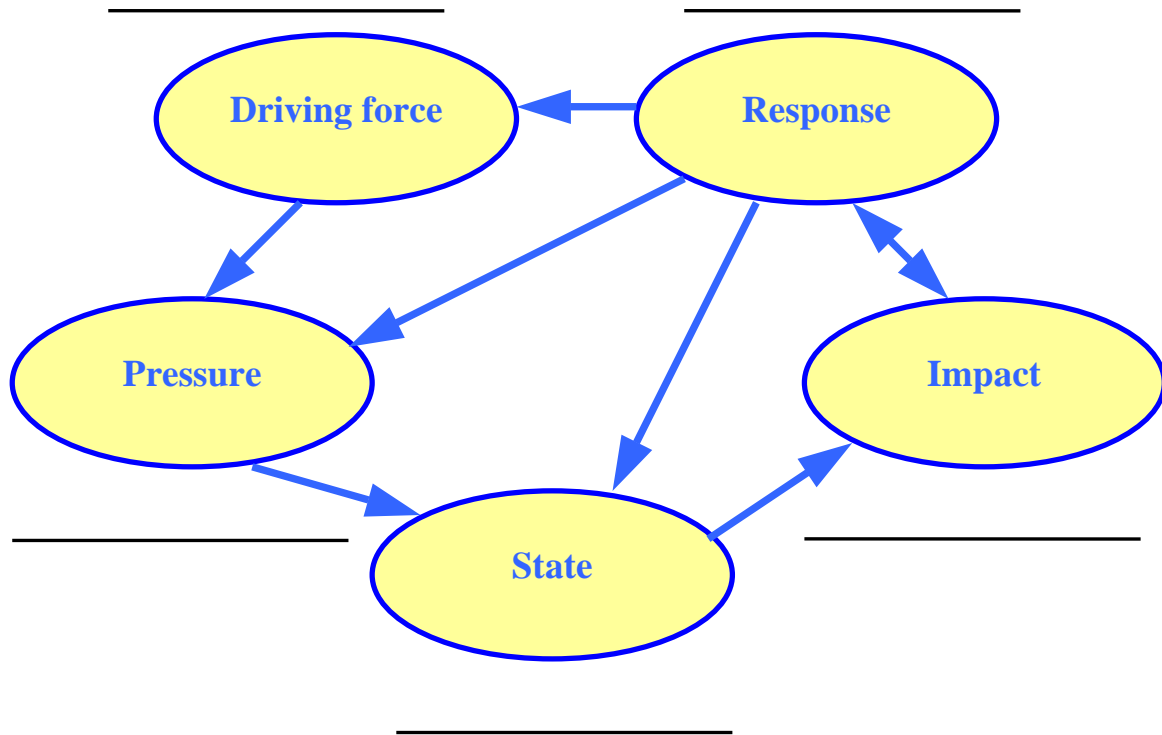
Build the scheme DPSIR to represent the integration factors between the environment and industry sector, using the elements written in ANNEX 1
Comment on your choices

a) Identify the main casual factors



Comments

b) Associate the indicators put in ANNEX 2 with these factors (using their number) and put them in decreasing order of importance.

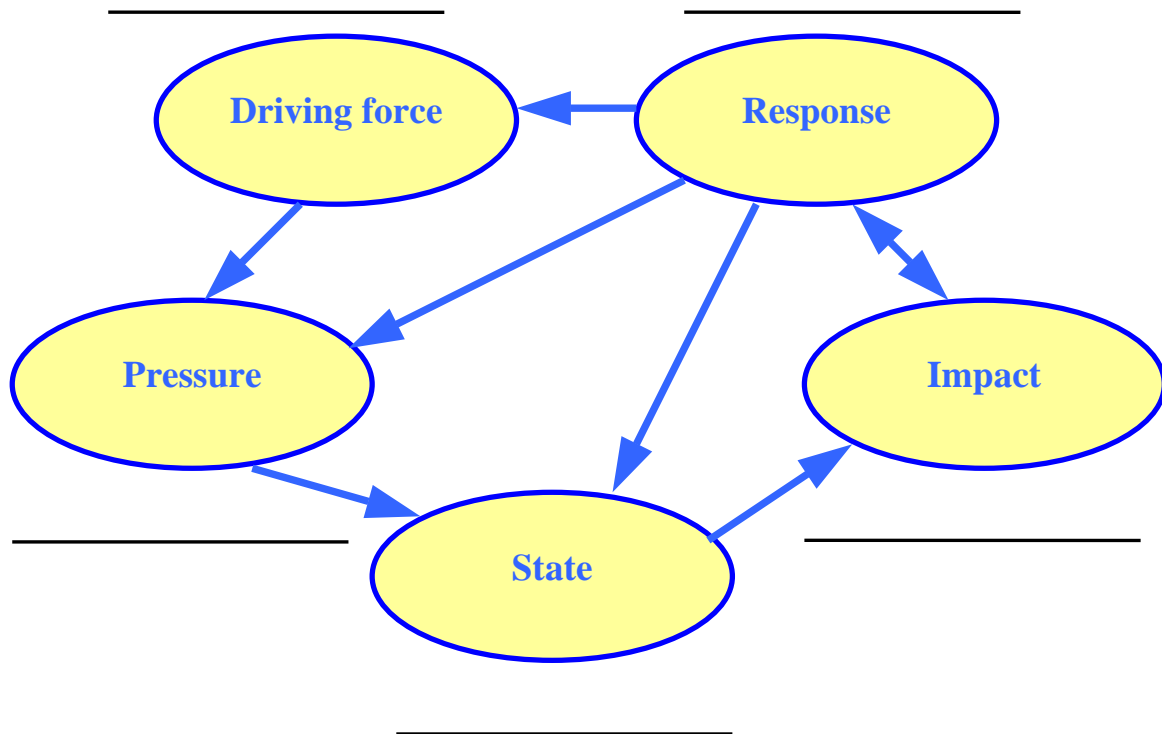


Comment on your choice:

Exercise 6

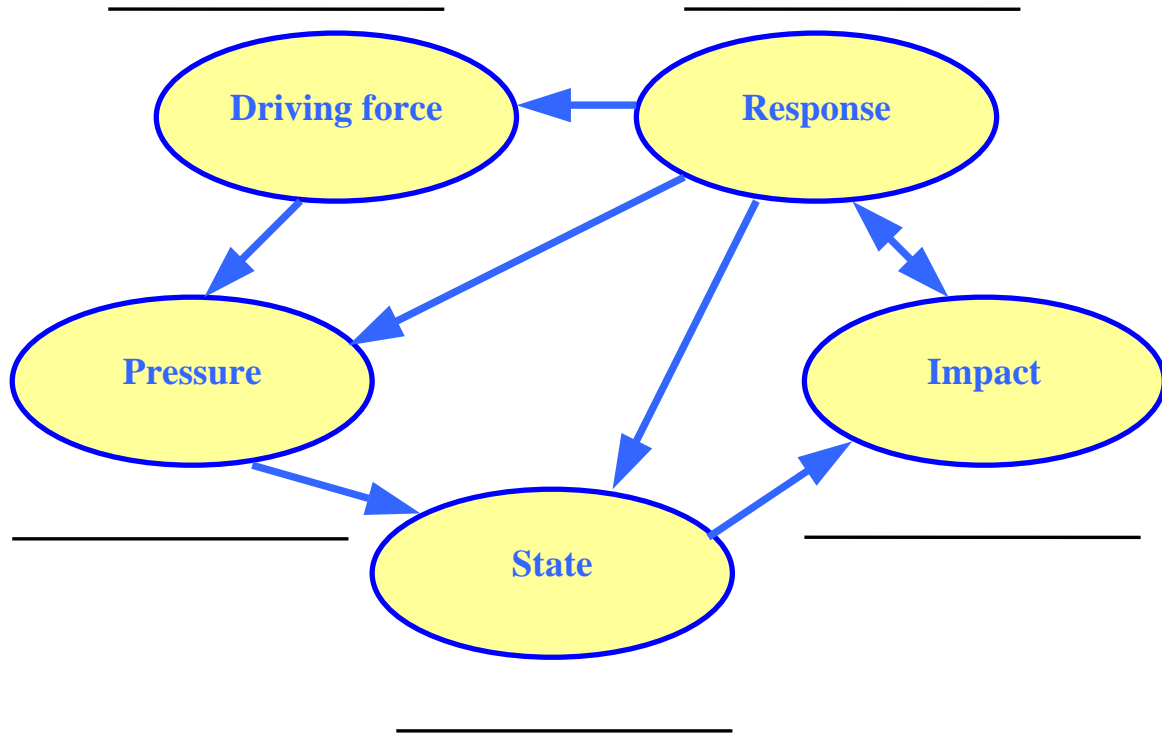
Build the scheme DPSIR to represent the integration factors between the environment and transport sector, using the elements written in ANNEX 1
Comment on your choices

a) Identify the main casual factors



Comments

b) Associate the indicators put in ANNEX 2 with these factors (using their number) and put them in decreasing order of importance



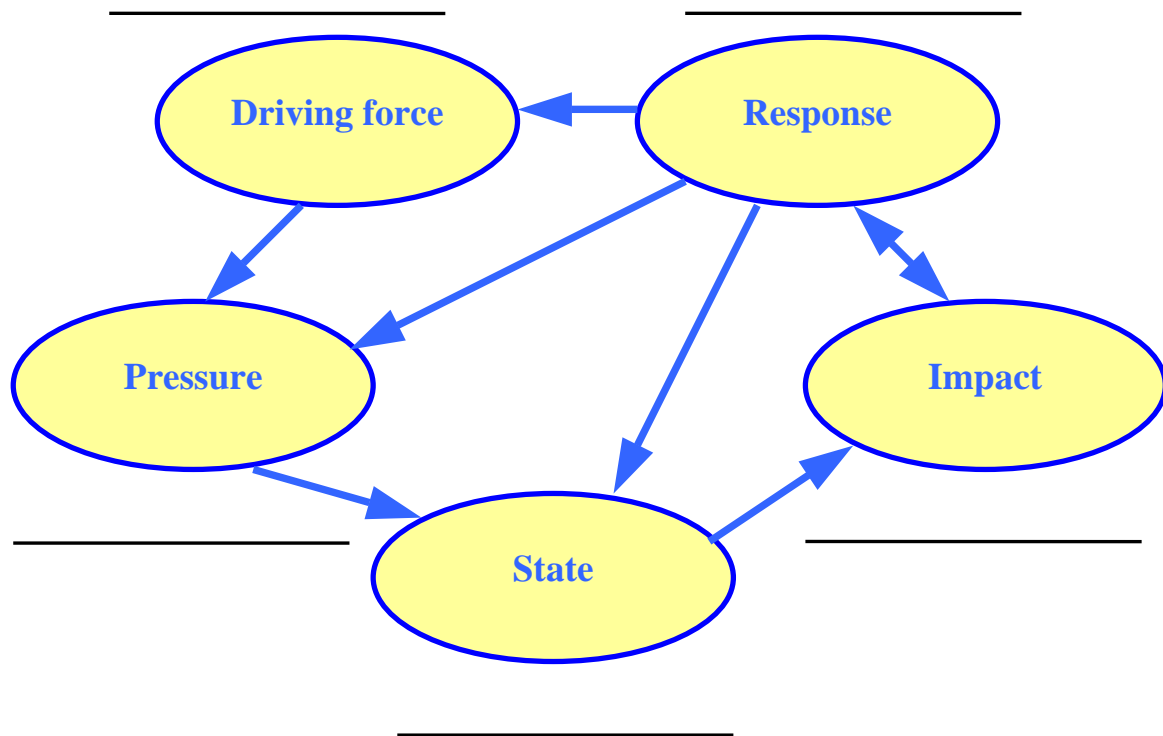
Comment on your choice and:

Exercise 7

Build the scheme DPSIR to represent the integration factors between the environment and energy sector, using the elements written in ANNEX 1

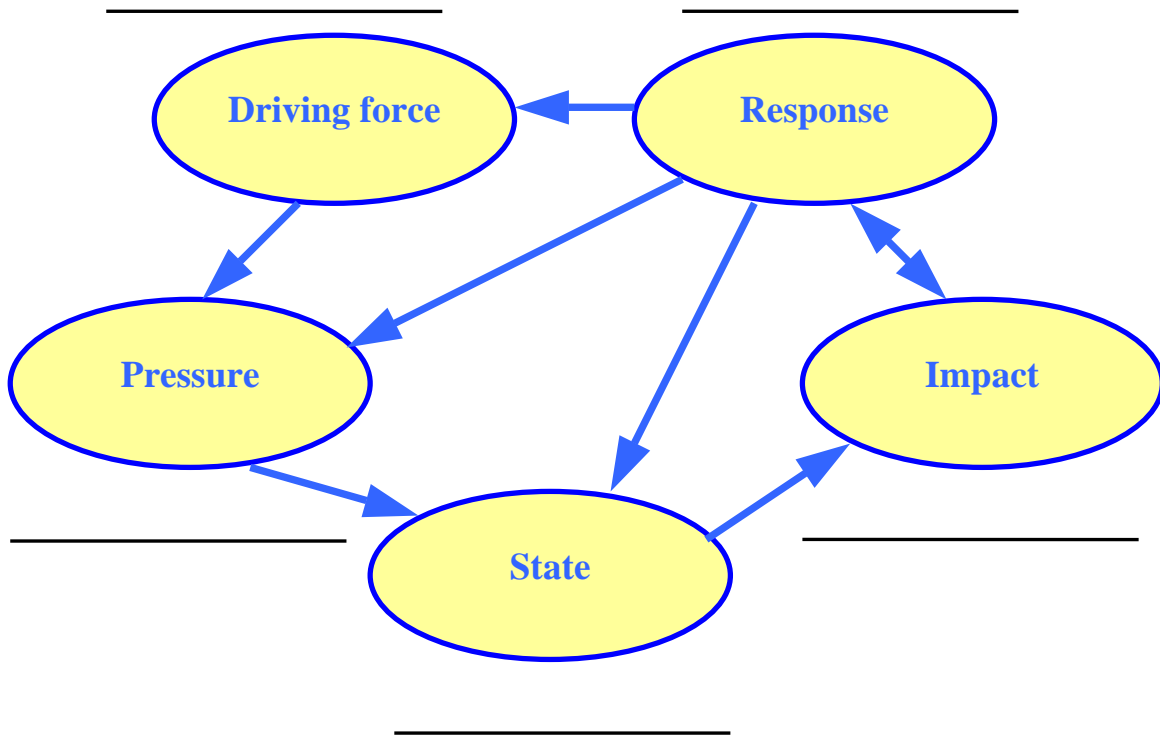
Comment on your choices

a) Identify the main casual factors



Comments

b) Associate the indicators put in ANNEX 2 with these factors (using their number) and put them in decreasing order of importance



Comment on your choice:

Exercise 8

Give to each indicator the respective category (multiple answers possible)

	Indicators	Driving force	Pressure	State	Impact	Response
1	Number of daily overcomings of alarm limit of Ozone concentration					
2	CO ₂ concentration in atmosphere					
3	Greenhouse gas emissions (CO ₂ , CH ₄ , N ₂ O, HFCs, PFCs, SF ₆)					
4	Bathing water quality					
5	Reduction of the use of pesticides					
6	Number of livestock breeding farms					
7	Number of farms implementing ecologically oriented					
8	Eco-efficiency in agriculture					
9	Gross electricity production from renewable sources					
10	Energy product prices					
11	Passenger transport demand and intensity					
12	Tourist intensity					
13	Proportion of vehicle fleet meeting certain emission standards					
14	Air temperature					
15	State of approval of the municipal noise abatement plans					
16	Number of NUNI-EN-ISO 14001 certifications					
17	Number of network laboratories for environmental controls					
18	Number of environmental-related publications					
19	Chemical state of underground waters (CSUW)					
20	Quality required for shellfish waters					
21	Radon indoor concentration					
22	Ecological state of rivers (ESR)					
23	Potential years of life lost (PYLL) for road accidents					
24	Level of threat for animal species					
25	Protected terrestrial areas based on Law quadro 394/91					
26	Human pressure on wetlands of international importance					
27	Number of forests fires					
28	Extent of forest fires					
29	Defoliation of the tree canopies of forest species					
30	Municipal waste generation					
31	Number of landfills					
32	Number of waste incineration plants					

	Indicators	Driving force	Pressure	State	Impact	Response
33	Total waste generation and by GDP unit					
34	Separate collection of municipal waste					
35	Recovery of packaging waste by type of material					
36	Power lines found to exceed the statutory electric and magnetic field limits, and relevant remedial actions					
37	Protected marine areas					
38	Fishing pressure					
39	Specific emissions in the chemical industry					
40	Hazardous and non hazardous waste generation					

Exercise 10

For each indicator select the corresponding typology (Descriptive, Performance, Efficiency)

	Indicators	Descriptive	Performance	Efficiency
1	Number of daily overcomings of alarm limit of Ozone concentration			
2	Greenhouse gas emissions (CO ₂ , CH ₄ , N ₂ O, HFC _s , PFC _s , SF ₆)			
3	Bathing, Valuation of the quality of bathing waters based on the applicable statutory regulations			
4	Use of pesticides			
5	The assent of farms to ecologically measures oriented			
6	Eco-efficiency in agriculture			
7	Final energy intensity (Amount of energy per unit of GDP)			
8	Passenger transport demand and intensity			
9	Tourist intensity			
10	Proportion of vehicle fleet meeting certain emission standards			
11	State of approval of the municipal noise abatement plans			
12	Specific emissions in the chemical industry			
13	Quality of waters needing protection to support the fish life			
14	Chemical state of underground waters (CSUW)			
15	Potential years of life lost (PYLL) for road accidents			
16	Acidifying substance (SO _x , NO _x , NH ₃) emissions: trends correlated to national reducing target			
17	Potential use of underground waters			
18	Extent of forest fires			
19	Number of forests fires			
20	Defoliation of the tree canopies of forest species			
21	Waste generation per unit of GDP			
22	Separate collection of municipal waste: achievement of targets established by D.Lgs. 22/97			
23	Power lines found to exceed the statutory electric and magnetic field			
24	Recovery of packaging waste by type of material: achievement of targets established by European normative			
25	Hazardous and non hazardous waste generation			

ANNEX**1**

1	Production
2	Climatic Change
3	State of environmental matrix
4	Consume
5	Impact on Health
6	Change of land use
7	Official regulations, legal rules, incentives
8	Transport of freight and passenger
9	Pollutant emissions
10	Change of biodiversity
11	International convention

ANNEX

2

1	Research and Development expenditure in the manufacturing industry
2	Traffic noise: exposure and disturbance
3	Industrial production by sector
4	Specific emissions in the chemical industry
5	Water quality
6	INES register: number of plants and IPPC activities
7	Lost of biodiversity
8	National Industrial production on GDP
9	SOx Emissions in the iron and steel industry
10	Energetic efficiency of industry sector
11	Air quality: benzene concentration
12	Vehicle fleet size
13	Proportion of vehicle fleet meeting certain emission standards
14	Freight Transport demand
15	Advancing of glacier fronts
16	Impact of Sickness caused by PM10 exposure
17	Access to transport services
18	Greenhouse gas emissions produced by transport
19	Reduction of the use of pesticides
20	Tourist intensity
21	Increasing of desertification areas
22	Passenger Transport demand
23	Hazardous and non hazardous waste generation
24	Total Energy Electric production
25	Sulphur dioxide emissions, in total and from energy-related processes
26	Percentage of energy produced by Aeolian power plant
27	Greenhouse gas emissions produced by energy processes
28	Temperature of big rivers
29	Extent of forest fires
30	Nitrogen oxide emissions, in total and from energy-related processes
31	External energy production costs
32	Air quality in neighbouring areas to energy plants
33	Gross electricity production from renewable sources
34	Percentage of commune whit noise zoning plants
35	Total energy consumption
36	Air polluting emissions by the transport sector
37	Air quality: PM10 concentration
38	Defoliation of the tree canopies of forest species
39	Packaging production
40	Areas of contaminated sites