



**REGIONAL WORKSHOP ON  
ENVIRONMENTAL  
PERFORMANCE  
INDICATORS**

**DAMASCUS - SYRIA**  
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"Type II indicators"  
(12/01/1996 - Damascus)

Growing concern over environmental issues in recent decades has driven the need for more comprehensive and reliable environmental information. The aims are to satisfy national policy makers' needs for reliable information, to contribute to the identification of priority fields and to facilitate comparisons of environmental conditions, stage, and progress towards sustainability among nations.

### **The objective**

The general objective is to be able to identify *progress achieved for environment quality* in the different countries. "*Environment quality*" refer to conservation of natural resources, with sustainability of uses by human activities, preventing degradation by pollution, overexploitation ; it refers also to land use with its urban, rural and ecosystemic components.

"Progress for environment quality" implies to answer to some questions :

- What do we know about the environment, its specificities, its weakness? Is it changing?
- What do we know about the users of natural resources? Are they pressurizing the environment?
- What do we do to prevent, mitigate pressures on the environment? (actions, policies etc.)

There are important gaps in our understanding of the facets of environmentally sustainable development, and there are also areas where the collection of data could be streamlined. decision making and planning for selected priority issues implies reliable information on :

- the state of knowledge on status, pressures, and their trends of change for the issue
- actions taken to reduce pressures and degradations and assess their usefulness

Type II indicators aims to contribute to "environment : situation and trends reporting effort". They follow up relevant information that help to understand and assess selected environmental issues. They contribute to the development of an empirical base of information for decision making, planning, policy development and review.

Different users have different needs of information. Thus the appropriate set of indicator has to correspond to concrete and specific goal (problem, actor, decision, geographical level, choice of measurable and dynamic tools). The choice of such evaluative tools depends enormously upon the organization of the decision-making process for environmental matters and development, and on the participation of the specific actors in each country. In the work of BP/RAC for the Mediterranean region, stress is put on dynamic assessment of past, current and future trends.

### **The approach**

All actors involved in environmental management from decision makers to the public should share both common knowledge and responsibility. An open discussion about links among indicators currently available, Mediterranean and countries most pressing concerns is therefore an essential step to frame a network of "environment and development assesment and reporting efforts" throughout the region.

#### **1. At regional level (Blue Plan)**

As a user of indicators, BP/RAC position is that more can and should be done with available information (even if imperfect), and that we can start using at least rough indicators to spot

light whether environmental conditions are improving or worsen. A regional agreed framework of indicators is a first step towards promoting dialogue between users and compilers of information, technical ground, researchers and decision makers.

Observation and assessment of Mediterranean state of the environment requires in parallel an approach to apprehend situations and environmental issues together with the improvement of the knowledge of the institutions concerned with those issues. Institutions by their existence, (or lack), their capacity, their performance (or lack of performance), are helping or blocking technical solutions. The proposal of BP/RAC is to integrate the institutional dimension in "the state of the environment reporting effort" and to look at institutional practices in the different countries. we should get a first image of "who is doing what" on environment at the state level in the countries.

## **methodology**

This communication is a brief summary of the elements provided as background documents (set of indicators and milestones for environmental performance). In these documents, a first set of environmental indicators is proposed to help to answer to priority actions areas identified by all the countries within METAP III : 1)What do we do for integrated water and coastal resources conservation? 2)Are we arresting and preventing pollution at hot spots? 3)Are we strengthening the capacity and rôle of environmental institutions?

The first document aims to illustrate how even rough indicators, today available, can yield analytical insight and help establish near-term priorities for management, basic research, including state of knowledge efforts through data definition, compilation and modeling. The interpretation of indicators with an objective of performance evaluation calls for reference values and thresholds and the choice of performance milestones. Exemples of international and national reference values are provided in the second document.

For each issue selected, reference is made to the corresponding chapters of Agenda 21 and eventually of Agenda MED 21. Each section containing the thematic indicators is preceded by an introduction presenting the issues in the Mediterranean as well as the main parameters that allow to grasp country specific contexts.

- For the first two issues, the PSR framework is used. Indicators here proposed have been selected according to different criteria: pertinence to the Mediterranean context, availability of data in the different countries, feasibility for the short term.

We should keep in mind that they should be accessible, easily understandable and used by planners and decision-makers. Reference is made to existing performance milestones to be used as reference values if necessary.

- As regards the third issue, Institutional factors, the proposal contains not real indicators (as these should be quantitative) but rather benchmarks (comparable to parameters), as one of the tools in the process of performance evaluation.

## **Example of water issues**

Under the general title of "integrated water resources and coastal conservation", we focus upon three questions clearly stressed upon in the Agenda 21 (chapter 17 and 18) : what do we know upon water resources? how do we use water resources? what do we know about water management?

The objective of the regional set of indicators is to get an idea of where we stand for these three questions, identifying common problems and country specificity in the natural context, socio-economic practices and management policies. Our interest is to monitor changes of water resources status, uses and actions taken to improve water management for the Mediterranean region.

A reduced set of data and indicators is proposed using the PSR framework and providing background information. The question on water management is within the group of "institutional factors" and the tools proposed are mostly benchmarks (response and evaluation).

## **2. At national level : looking at three case studies**

National case studies were asked for to four countries : Egypt, Morocco, Turkey, Syria but Morocco was unable to attend the meeting. Each country was provided the two regional background documents cited above. The purpose was to test the usefulness and practicability of the regional set of indicators in a national context and complement it. As one of the major limit to the feasibility of environmental indicators, the environmental information system and existing network was described.

### **2.1 Egypt**

Two representants of the EEAA presented their experience in selecting environmental indicators for selected environmental issues : water, air, land, waste management. These indicators are tools for decision making.

#### **Background information**

Very few detail on the Egyptian environmental information system, monitoring networks and network of information providers and users were given.

#### **Methodology**

EEAA adopted a national monitoring network (according to the law n°4 concerning the environment and its executive regulations) and developed monitoring stations for water and air pollutants all over the country. The ministry do not monitor but relay on research centres providing the data. Indicators selected in the communication contribute to the assessment of environmental problems. The PSR framework was not used except for the study on hospital waste.

#### **Examples of indicators useful for environmental reporting (type II)**

- Proposal of environmental indicators for water is focusing on two issues : water quality and withdrawal of users. The indicators are organised in four groups : 1) fresh water quality, 2) toxic contaminants in the freshwater ecosystem and determinant of the maximum permissible limit ., 3) marine environment quality (discharge, contaminant level), 4) water user (withdrawal total and sectorial, recycling).
- Proposal of environmental indicators for air use the results of an exhaustive study to define air quality standards for car exhausts. Four groups are proposed corresponding to four environmental issues: 1) climate change, 2) stratospheric ozone depletion, 3) radiation exposure, 4) urban area air quality.
- Proposal of environmental indicator for land is focusing on five issues : 1) protected areas, 2) urbanization, 3) agriculture, 4) soil salinization, 5) rate of desertification.
- Proposal of indicators for solid waste management stress upon the waste production and disposal.
- A set of socioeconomic indicators is also proposed to set the context of environmental indicators : population growth, economic activities growth, structural changes, awareness, physical features.
- the case study on hospital waste management is developed as a capacity building issue. The contamination problem (indicator of environmental pressure and of environmental conditions) pushed the government to set up management plans (indicator of societal response). Results of these actions have to be assessed (education, segregation, minimization, treatment) thanks to indicators of performance evaluation.

## 2.2. Syria

The presentation by the Ministry of environment provides a good overview of relevant set of indicators for the different purposes :

- to be used in environmental assessment reporting effort at national, regional levels (type II) :
- to be used in the follow up of long term policy and actions (mainly response indicators) (type I)
- to be used for the follow up of a specific project (type III)

### **Background information**

At present no environmental information system exist in Syria, it is to be established to gather existing information and connect the ministry of environment to information providers at national and international level. Network of the environmental information system will be developed with the contribution of UNDP.

A comprehensive study about the sustainable development network was prepared on the following themes : population and urbanisation, water scarcity, air pollution, waste disposal, soil erosion and desertification, sustainable agriculture, marine and coastal pollution, and strategy of the host country.

### **Methodology**

The ministry of environment in cooperation with the scientific Centre carried out a study on air pollutants in the main cities of the country. The WHO standards were used.

For water resources, monitoring is under the responsibility of the directorate of water pollution prevention of the ministry of irrigation.

For land, studies on fertilizers are undertaken by the directorate for land of the Ministry of agriculture in cooperation with the ministry of environment, and also by the scientific environmental research centre.

### **Examples of indicators useful for environmental reporting (type II)**

Based on the monitoring and case studies, sets of environmental indicators are proposed following the PSR framework for the following issues : 1) water resources in Damascus governorate, 2) "hot spots in agglomerated cities, 3) capacity building indicators

### **Examples of benchmarks of policy / actions towards sustainable development (type I)**

The most important policy actions undertaken by the ministry of environment are the following :

- 1) environmental legislation (standards definition, implementation),
- 2) water safety (coordination, awarness, pollution prevention, training),
- 3) air safety (legislation development, implementation, coordination with industries, quality control),
- 4) protection of environment from industrial and energy pollution (EIA development and implementation, renawable energies, international agreements respect),
- 5) protection of soil and its safety (law development, awareness, rational nutrients use, desertification...)
- 6) population and the environment (population growth policy, illegal housings cp,trol, emigration....

### **Examples of indicators for monitoring projects development (type III)**

Proposal of set of evaluation indicators are proposed for two projects : 1) use of treated water of Damascus treatment plant , 2) master plan for integrated pollution control in Aleppo.

For each project, the evaluative tools are classified in the four categories : inputs (human and financial resources needed), ouputs (training, control, EIA establishment of EIA), linkage (legislation, land use strategies,...), multiplier effects (link with health coats, work efficiency, work opprtunities etc.).

## 2.3 Turkey

The Turkish case study was presented in two phases : a general overview on the framework of environmental information system in Turkey and the existing environmental indicators, a detailed analysis of solid waste indicators for Turkey. The indicators useful for the follow up of METAP III projects were also addressed. The reports provided are very rich and complete, just a brief summary will be provided thereafter.

### **Background information**

In 1983, the environment act of Turkey came into force, demanding monitoring and environment data. Reliable environmental data and indicators was felt necessary for pollution monitoring, sound investments and integrated management by various ministries as the Ministry of environment (established in 1991 but existing since 1978 as an undersecretariat).

A lot of information on environmental issues is already available in related ministries and institutions as detailed in a table (such as the state hydraulic works and the bank of province for water, the ministry of forestry for forest data, the ministry of environment for marine pollution specially protected areas).

The State institute of Statistica (SIS) founded in 1990 a division for environmental statistics. It is working under the OECD guidelines and methodology, and publish environmental indicators and indexes for public use.

### **Methodology**

#### *Environmental information system*

The SIS uses various methodologies for each survey : census, pools, investigations, monitoring systems, remote sensing and GIS. Methodology, questionnaire and manual of each survey are prepared by the coordination of SIS with working groups formed by the experts about the related topics from the state planning organisation, the ministry of environment, other governmental organisations, the municipalities, the private sector and universities. SIS frequently relies on data collection and reports by other agencies.

Final outputs of SIS studies are reports, lists, maps, tables with environmental data, environmental indicators, environmental information, environmental indexes.

#### *Network of statistical data collection system*

Collaboration for data gathering is developed by SIS with competent governmental organizations in various environmental fields as for air pollution statistics, emission inventory from industries, solid waste inventory, municipal environmental inventories. In this network, the institutions providing information are listed with some basic informations : subject of the data, the data collection area, the duration of data collection, the methods for data collection, the situation of database, the frequency of data collection. SIS is linked to Internet and Olis.

#### *Development of an Environment and development observatory*

The ministry of Environment, in coordination with the State Planning Organization and SIS is preparing a project of establishment of a the Turkish Environment and Development Observatory" sponsored by the Life Program. Its main objective is to improve the knowledge and integration of economic, social and ecological information in order to supply decision makers with objective and dynamic information to gear their decisions towards sustainable development.

Through its cross-analysis of sectorial data available in the Environmental information system, this Observatory will provide a clear and realistic dynamic picture on the state of the environment. It will work in close collaboration with the networks of information providers and users, at national, regional and local level. Dissemination of such information is a necessary tool for sensibilisation, and incentives.

## **Examples of indicators useful for environmental issues reporting (type II)**

Since 1990, SIS has developed a core set of environmental indicators following the OECD methodology : state of the environment and natural resources, pressure on the environment, societal responses. It obeys also the UN/ECE statistical classifications on environmental topics.

### *Set of environmental indicators used by SIS*

SIS uses indicators to publish information on :

- 1) air status, pollutants emissions in the air ;
- 2) integrated water resources management ;
- 3) solid waste management ;
- 4) land use, desertified areas, agricultural patterns (productions, fertilizer and pesticides consumption), 5) flora and fauna (plant and animal species, endangered, declining, vulnerable) ;
- 6) forest (amount, population, growth and depletion)
- 7) energy (primary energy consumption, end use, fuel type )
- 8) tourists number, number of cars, population

### *Case study on waste management*

A exhaustive case study on solid waste management in Turkey was presented. It provides a concrete exemple of the use of indicators to describe the problem and compare situations in the different regions, present the waste treatment strategies, and the policies. In particular they are useful to follow up the changes in waste management practices focusing on garbage generation, garbage collection methods, recycling and alternative treatment strategies.

## **Examples of indicators for the follow up of projects (type III)**

Five projects were proposed in the METAP III portfolio for the three priority field areas : capacity building, integrated water resource management, arresting and preventing pollution at hot spots.

The set of indicators proposed for the follow up of the projects are divided in two groups depending on the manager objective : 1) check that the project is developing properly ; 2) assess the results of the project towards environment quality and institutional development. They are mainly pressure and response indicators. They are not formally organised in the METAP classification (input, output, linkage, multiplier effect) but provide useful indicators to assess outputs and linkages of the projects.

These assesment should be related to the previous set of indicators setting the environmental context at a national (regional and local level).

Performance milestones criteria of accomplishment are proposed for the five projects but no scheduling of the steps necessary to reach the final step.

Following these presentations, a summary of the proposal made was drawn. The priority in this session was given to indicators useful for "reporting on environmental issues : situation and trends of changes" (Type II).

Identification and selection of relevant indicators is dependant on existing environmental and socio-economic information in the different countries. National case studies provided a quick overview on their status of environmental information system and network of suppliers and users. Proposal of set of indicators is determined and limited by the availability of data and monitoring systems, and the homogeneity and comparability of data in each country and at the Mediterranean level.

The following table summarised the proposal of the different case studies and the objective they wish to answer to. National case studies provided also elements of response on the benchmarks for the follow up of actions towards sustainable development (type I) and indicators for the follow up of projects implementation (type III).

<b>Proposal of indicators in Case studies</b>	<b>Background information</b>	<b>Objective to be answered to</b>			<b>presentation of indicators Use of PSR framework</b>
		<i>environmental information system and network</i>	<i>assessing situation and trends of environmental issues</i>	<i>assessing policies and actions towards sustainable development</i>	
Mediterranean by BP/RAC	no (presented the 13/01/96)	-water resources, water use, water management -air pollution at hot spots -institutional environmental framework			yes
Egypt by the EEAA	(not detailed)	-e.g fresh and marine water, air, solid waste, land, socio-economic, -hospital waste			no yes + evaluation of societal response
Syria by the Ministry of environmental affairs	yes	- water resources in Damascus governorate -hot spots in agglomerated cities -capacity building	-environmental legislation -water safety, air and energy safety, pollution prevention, soil protection, public awareness	-reuse of treated water of Damascus plant -master plan for integrated pollution control in Aleppo	yes except for projects (input, output, linkage, multiplier effect)
Turkey by the State Institute of Statistics	yes	- air , -integrated water resources management ; - solid waste management ; - land use, desertification -agricultural patterns -flora and fauna - forest -energy, tourists , cars, population	-development of environment and development observatory	- environmental data base and monitoring -integrated water management in 3 catchment areas -environmental compliance plan for the leather industries -soild waste project -clean fuel substitution for air pollution abetment in 5 ciities	yes

## WORKING GROUPS SESSION on indicators type II

### Objective

- discuss the proposal and choices made in regional and national case studies for the selection of set of indicators useful to monitor **environment situation (priority issues) and trends of changes**
- testing and complete the approach for a selection of relevant set of indicators with experience of other countries and in sub-regional groups

### Groups composition

Group 1 : Croatia, Slovenia, Albania, MAP/PAP/RAC, (BP and METAP temporarily)

Group 2 : Tunisia, Lebanon, OSS, BP, PNUD Algeria, PNUD regional,

Group 3 : Egypt, Palestine, Jordan, BP, (METAP temporarily), ACSAD, PNUD Egypt, Spain

Group 4 : Syria, Turkey, Cyprus, PNUD international, FAO,

### Tasks

The working groups carried out the following :

1. choose common problems :

*briefly review environmental issues for each country in the group to select common priority problems (on the base of the summary table of METAP III priority areas defined for each country)*

2. propose set of indicators relevant in your national and sub-regional context using PSR framework: *based on your country priorities, objectives and background information available* suggest a preliminary set of indicators within each of the METAP III priority areas :

-capacity building,

-arresting/preventing pollution at hot spots (urban environmental services, industrial pollution or energy and air quality

-integrated water management

(use as reference documents the two background documents provided by BP/RAC on regional set of indicators and the three national case studies)

## Results (groups presentation)

### **Group 1 : (Croatia, Slovenia, Albania)**

The review of the countries priorities for METAP III in Croatia, Slovenia, Albania lead the group to focus on **"hot spots" in coastal areas**.

Albania stressed upon pressures on the environment of hot spots in coastal urban areas, Croatia focused on one effect of hot spots (contamination of groundwater due to solid waste), finally Slovenia concentrated on the prevention of pollution from a coastal town.

### **Country proposal of indicators**

Three complementary questions were therefore dealt with :

- Do we know what are the environmental problems in coastal urban hot spots? (understanding of the problems, their effects, the responses to be taken)
- Do we monitor and understand groundwater contamination due to solid waste disposal? (monitoring the changes in quality, understanding the causes, developing response strategies)
- How do we prevent pollution from a coastal town? (type of pollution, effect, preventing measures)

Specific indicators based on those questions were proposed in each country as presented in the following three tables.

#### ALBANIA : Hot Spot for Coastal Urban Area (City of Vlora)

<i>Pressure</i>	<i>State</i>	<i>Response</i>
- Quantity of Untreated waste water	- Water Efficiency use	- Feasibility study for waste water treatment.
- Quantity of solid waste	- Microbiological Contamination of drinking water - Pollution of underground water	- Pricing of Urban services
- Immigration and Illegal Housing	- Number of illegal construction	- Urban Planning

#### CROATIA : Ground water contamination from solid waste

<i>Pressure</i>	<i>State</i>	<i>Response</i>
- Population growth and density - Industry - Number of Tourists (Seasonal Pressure)	- Concentration of contamination (Microbial, Nutrients, heavy metals, etc.) in ground water and soil	- Solid waste management (Number of sanitary landfills, incinerators i.e. waste treatment) - Health surveillance. - Environmental pollution monitoring - Tax incentives

SLOVENIA : Prevention of Pollution from town of Koper

<i>Pressure</i>	<i>State</i>	<i>Response</i>
<ul style="list-style-type: none"> <li>- Domestic and industrial water consumption</li> <li>- Seasonal concentration of tourists</li> <li>- Port's and marines' activities</li> <li>- Oil and hazardous chemical storage</li> <li>- Road traffic freight and passenger</li> </ul>	<ul style="list-style-type: none"> <li>- Concentration of contamination in air and waters and soil</li> <li>- Quantity of solid waste</li> </ul>	<ul style="list-style-type: none"> <li>- Number of waste water treatment plants (Rate of increase)</li> <li>- Contingency plan (port Road traffic)</li> <li>- Solid waste management</li> <li>- Environmental pollution monitoring</li> <li>- Taxes</li> </ul>

**Conclusive remark**

When looking through the three set of indicators, two types of indicators are available : some indicators are useful to describe the "hot spot" problem in general (common) , and other are more specific of the problem addressed in the three country. The following table gather a common set of indicators based on the three country sets.

**common set of indicators for hot spots in coastal zones**

<i>Pressure</i>	<i>State</i>	<i>Response</i>
<ul style="list-style-type: none"> <li>- Domestic and industrial water use and discharge</li> <li>- Seasonal concentration of tourists</li> <li>- Quantity of solid waste</li> </ul>	<ul style="list-style-type: none"> <li>- Concentration of contamination (microbial, nutrients, heavy metals etc.) in air, waters and soil</li> </ul>	<ul style="list-style-type: none"> <li>- Solid waste management (planning), types of treatments in % of population served...</li> <li>- waste water management (planning), types of treatments in % of population served...</li> <li>- Environmental pollution monitoring</li> <li>- Taxes incentives and pricing of urban services</li> </ul>

## **Group 2 : (Tunisia, Lebanon)**

After analysing the countries priority areas for METAP III, Tunisia insisted on water problems and Lebanon on industrial pollution.

They decided to stress upon two common issues : the capacity building in environmental management and the industry as a source of water contamination particularly in coastal areas. They worked on common sets of indicators, through two main questions.

- What has been developed through capacity building? (research, monitoring, management, training, implementation of legislation)
- What do we know about water pollution from industries? (industrial patterns, pollutants discharges, changes in water quality, pollution prevention tools)

### **Identification of a common set of indicators for capacity building on environmental management**

#### **Capacity Building indicators\***

- Number of specialised laboratories
- Number of specialised institutions
- Number of training and trainees
- Number of NGO
- Number of EIA realised by the country
- Number of employment in the environment field.

\*Most of the indicators proposed are under the response section.

### **Identification of a common set of indicators for monitoring water pollution by industrial hot spots in coastal areas**

<i>Pressure</i>	<i>State</i>	<i>Response</i>
- Number and types of industries - Volume of untreated and pretreated waste water	- "Usure" Index - Quality index / pollutants*	- Number of water treatment plant - Incentives (Y/N) - Taxes 5Y/N) - Establishment of Norms (Y/N)

\*The knowledge of the types of pollutants is needed in order to choose measures and index describing the quality of the marine water.

### **Remarks on the METAP III summary table on country priorities**

Some rectifications were proposed by the countries on the summary of country priorities for Metap III :

- Tunisia reminded that its country priorities for METAP III do not concern only capacity building but also some local projects.
- The strengthening of environmental management in Algeria is proposed at the Willaya level and also for a local case study.

## **Conclusive remarks**

As each country has its own specificities, specific sets of indicators should be developed for each country to complete the common regional set of indicators on selected issues.

## **Group 3 : (Egypt, Palestine, Jordan)**

After a brief review of their country priorities for METAP III, the three countries noticed that they have common priorities. They decided to stress upon one of their major urban problems: the municipal waste management considering that the Egyptian case study provided a good starting point.

The discussion started by a roundtable on perceived environmental problems linked to municipal waste management in each country. It was felt necessary to start by a short list of the environmental issues of municipal waste management and agree about it.

## **Short list on environmental issues proposed**

### Socio-Economy

- Improper Disposal Practices
- Free Riders
- Consumption patterns / life styles
- Population growth (Urban)
- Lack of Awareness

### Institutional

- Lack of approp. legislation
- Coordination
- Policy issues
- Funds and land facilities
- Enforcement

### Technical

- Know - how
- Equipment (Appropriate technology)
- O & M : Generation , Collection, Processing, Disposal

Three major problems should be taken into account when planning waste management policy and monitored when implementing it.

1. What are the socio-economic factors of growth in waste production and contamination risks?
2. Do we know which institutional factors are lacking or not sufficient?
3. What are the technical means available?

The set of indicators need to illustrate these three major preoccupations.

### Identification of a common set of indicators for Municipal Solid Waste :

<i>Pressure</i>	<i>State</i>	<i>Response</i>
<ul style="list-style-type: none"> <li>- % of uncollected waste/ total generated waste</li> <li>- % of land lost due to crude dumping</li> <li>- Kg of waste production per capita</li> <li>- Urban Expansion</li> </ul>	<ul style="list-style-type: none"> <li>- Ground water quality (nitrates)</li> <li>- Air quality (Particulate, So2)</li> <li>- # of patients reported due to hepatitis</li> </ul>	<ul style="list-style-type: none"> <li>- Monitoring</li> <li>- Regulations</li> <li>- Awareness</li> <li>- Waste minimization policies</li> <li>- Eco instruments</li> <li>- Investments in Research</li> </ul>

### Conclusive remarks

One of the conclusion of the group disussion is that the choice of indicators need first to understand the country specificities, priority issues, major problems and availability of information. A prerequisite is a good definition and description of the system we referring to. Description of the natural conditions (state indicators) is the one first element to consider as they often constitutes constraints for development. It was proposed to use an State - Pressure - Response frame.

The second step will focus on analysing the issue and its different components. The third step can therefore look at illustrating the issue (problem, effect, response) through the use of indicator. The final set of indicators can therefore be a common set for a subregional group as proposed here and country set of indicators stressing on their major problems.

### Group 4 : (Syria, Turkey, Cyprus)

The brief review of the country priorities for METAP III, lead the countries to stress upon three issues : the health problems linked to waste, capacity building for environmental management, and quality of water resources

For the selection of indicators, the following questions were dealt with :

- what do we know about health risks due to waste and emissions?
- Can we assess changes in water quality and its affects?
- what need to be strenghten through capacity building?

### Identification of a common set of indicators for assessing health risks due to waste:

It was proposed to look at linkage and feedkack loop between pressure and state for both Waste <->Hepatitis and select indicators on that base.

<i>State</i>	<i>Pressure</i>	<i>Response</i>
Number of cases	Lashmania Hepatitis	Combustion plants
Number of people exposed to pollution	Lack of Legislation	Legislation discharge Permits
Summer Diarrhea	Non-Chlorinating of drinking water	Chlorinating
Population Air pollution	Low Generation of Power	Clean Technology FGD
So2 Cos TSP population affected 1.5	Transportation/Traffic Industry Heating	Directing Traffic Transport Trucks outside cities Establish standards of emissions

## Identification of a common set of indicators for assessing changes in water quality :

State	Pressure	Response
Salinization Eutrofication organic pollutants	Land going out of production	

A shortlist of benchmarks for capacity building to be followed was established.

### Benchmarks for capacity building

<i>Capacity building</i>	<i>Link with a PSR framework for problems assessment</i>
Coordination	<p><b>S</b> : EIA contributes to the building of a state of knowledge on natural conditions, situations, pressures on the environment from various activities</p> <p><b>P</b> : Monitoring provides the tool to identify trends of changes in the environment, to measure degradation, and follow up pressures (foreseen by EIA)</p> <p><b>R</b> : Management integrates the information provided by EIA, monitoring to stimulate the legislative, economic actors and implement responses (alternatives, corrective measure, prevention, use efficiency etc.)</p>
Legislation	
LABs	
EIA	
Institutions	
– Expenditure	
– Information	
– Monitoring	
– Hardware	
<b>Coordination</b>	
Funds	
Finance	
Management	
User	
Infrastructure	
Experience	

### Conclusive remark

The PSR framework offers a frame of thinking and is useful as a working tool to create a logic of linking cause and effect for a problem and giving elements of answers. The major idea is to understand the problem and what is done about it. (a lot of time was wasted when trying to agree on which indicator goes under pressure and state!)

The classification of indicators under Pressure, State, Response column is not always adapted. It was proposed to add when necessary a column for evaluation of societal response. The logical working frame becomes : State, Pressure, Response, Evaluation.

In conclusion, the set of type II indicators needs to be elaborate by each country, according their priorities and using a demand driven approach. Each issue has to be analysed, using the PSR framework and taking into account the local conditions.

The proposed steps for identification of relevant set of indicators :

- What is the problem? (its socio-economic, institutional, technical issues)
- What is the context (natural conditions, weakness etc.)?
- What are the priority issues to be faced?
- For each priority issue : What are the State, Pressure, Response indicators useful to monitor situation and trends of change of the issue.

Blue Plan could coordinate the elaboration and echanges on regional set of indicators with the different mediterrabnean countries. The aim is to be able to achieve comparable set of environmental information in time and space.