



MEDITERRANEAN ENVIRONMENTAL
TECHNICAL ASSISTANCE PROGRAM



MEDITERRANEAN
ACTION PLAN

METAP III

Regional Capacity Building Programme

Programme Performance Monitoring and Indicators

ENVIRONMENTAL PERFORMANCE INDICATORS

*Final Report
of the three sub-regional
Mediterranean Workshops
1998*



This note summarises the main conclusions and recommendations as they arose from three sub-regional workshops on Environmental Performance Indicators organised in 13 countries in the Mediterranean by the Blue Plan/MAP together with the METAP.

1 Context and General Objectives

The activities described below have been jointly undertaken by METAP and the Blue Plan in 13 Mediterranean countries in order to strengthen the capacity of managers and experts in the Mediterranean region to use and apply Environmental Performance Indicators (EPI) to measure the impact and performance of decisions and actions undertaken to safeguard the environment.

The activities developed in 1998 follow two Regional Workshops (Damascus in January 1996 and Beirut in December 1997) which initiated the work on EPI: adoption of common concept and methods, clarifying the role of EPI in decision making process.

As a follow-up to Beirut, a series of three sub-regional workshops has been organised in order to expand the discussion on indicators with a larger group of thematic experts and to sharpen a common set of thematic prime indicators on 4 specific topics, namely: **(1) air pollution, (2) solid waste, (3) water resources and demand, and (4) water pollution.**

2 Organisation of 3 sub-regional Workshops

THE 3 SUB-REGIONS:

The Blue Plan organised 3 workshops bringing together experts from 4/5 countries.

These were held :

- in Rabat, from the 26th to the 28th September 1998, bringing together participants from Morocco, Tunisia, Algeria, and Lebanon, (in French)
- in Cairo, from the 8th to the 10th of November with participants from Egypt, Syria, Cyprus, Jordan, Palestinian Authority, and a Lebanese observer from the Rabat workshop, (in English)
- In Split, from the 26th to the 28th November with participation from Croatia, Slovenia, Albania, and Turkey, and an Egyptian observer from the Cairo workshop, (in English)

This grouping of countries allowed the number of countries represented to be limited and therefore the issues to be better described. Participation was also increased by avoiding interpretation delays.

QUESTIONNAIRES

A detailed questionnaire was sent out 2 months prior to each workshop, for each of the 4 topics, to the future workshop participants. Work was placed under the responsibility of a national co-ordinator.

The questionnaires were devised by Blue Plan staff and split into 3 main parts :

1. A description of the main issues related to each topic in Mediterranean Countries (What should indicators measure ?)
2. A proposed list of relevant indicators (Which indicator(s) should be monitored ?)
3. Definition sheets for 10 or so pre-selected indicators (On computing & communications: What data is necessary? Is data available?). These sheets were based, as much as possible, on existing definitions from UN-CSD, Eurostat, EEA, ...

Participants were asked (1) to comment on or modify the description of issues in their countries, and to mention current policies. They were then asked (2) to comment on the relevance of the indicators proposed. Finally they were asked (3) to comment on indicator definitions, and (4) to provide data on the limited number of indicators (10 or so) for which definition sheets were put forward by Blue Plan.

This preliminary work, although quite long and exhaustive, appeared to be very useful in targeting discussions on specific issues, so that time was used intensively.

Nevertheless, due to time constraints, some countries have still to produce information and it was thus not possible to analyse all the data provided, especially that provided during (or awaited after) the workshops.

WORKSHOPS ORGANISATION

These 3 workshops brought together around 90 experts representing 13 Mediterranean countries and had the benefit of technical back-up from outside experts, observers from previous workshops, an expert from the World Bank and three Blue Plan experts.

They each followed the same type of Agenda : after a brief reminder of the context and some definitions and methods, followed by an awakening to the usefulness and limitations of applying Environmental Performance Indicators through a few examples taken from specific countries, main working was carried out in 4 thematic sub-groups focusing on EPIs at national level.

On each of the 4 topics, discussions were conducted along the following stages¹:

1. An exchange on common problems and current strategies,
2. A discussion on the relevance of the proposed indicators, as they were described in the questionnaires,
3. The selection of 5 prime indicators,
4. Agreements on definitions, and data availability assessments for the 5 selected indicators,
5. An assessment of necessary follow-up action

¹ Air pollution, Municipal and hazardous waste, Water resources and Water pollution management

3 Main achievements

EXCHANGES ON COMMON PROBLEMS AND AGREEMENT ON A SET OF INDICATORS

At regional level, when comparing the output of the 3 sub-regional workshops, it was possible to highlight common issues between the 13 countries and to reach a consensus on a limited number of indicators per topic. Discussions were very rich. The State/Pressure/Response framework appeared very effective to structure discussions, although it was practically often used as a “Problem/Cause/Solution” framework.

Each of the 3 workshops managed to limit its selections to twenty or so prime indicators for these 4 subjects so that, in the whole process of 3 workshops, only 35 indicators were selected, with a maximum of 10 indicators/topic (see Appendix: final list of indicators selected).

The workshops, in addition to their preparatory questionnaires (sent out to each country and analysed by Blue Plan), also permitted an assessment of the availability of data for calculating these indicators to be made.

Detailed records of the 3 workshops (including summaries and evaluations) were distributed to all participants.

In conclusion, the workshops demonstrated the usefulness of a uniform approach in the Mediterranean to EPIs (harmonisation of lists and definitions) which must now take place over time.

NETWORKING AND CAPACITY BUILDING

These activities allowed to identify the main institutional partners involved in air, water and solid waste management in the 13 represented countries but also to network them with the staff from the Environment and Development National Observatories.

These partners are now familiar with Indicators (principle, usefulness, conceptual framework and various initiatives in the Mediterranean). Indicators are considered as a good process to set priorities and targets and to monitor environmental performance at national and/or project level.

Work in small thematic groups during workshops, bringing together experts in the same field, in a friendly atmosphere, will probably contribute to strengthening future networking in the Mediterranean.

It was considered that the inclusion of observers (from Lebanon and Egypt) from one of the previous sub-regional workshops, in subsequent ones was also a good means of networking between the 3 sub-regions.

4 Recommendations for Follow-up Activities

In order to be useful, the process started in the meetings referred to above, should continue, and preferably should involve the same experts. Recommendations were formulated by the participants in the various workshops to this end, which are summarised below².

One of the major recommendations which came out of the workshops was carrying work further at **national** level. This is in order to set up the tools required for EPI application to work, and for their calculation on a permanent basis.

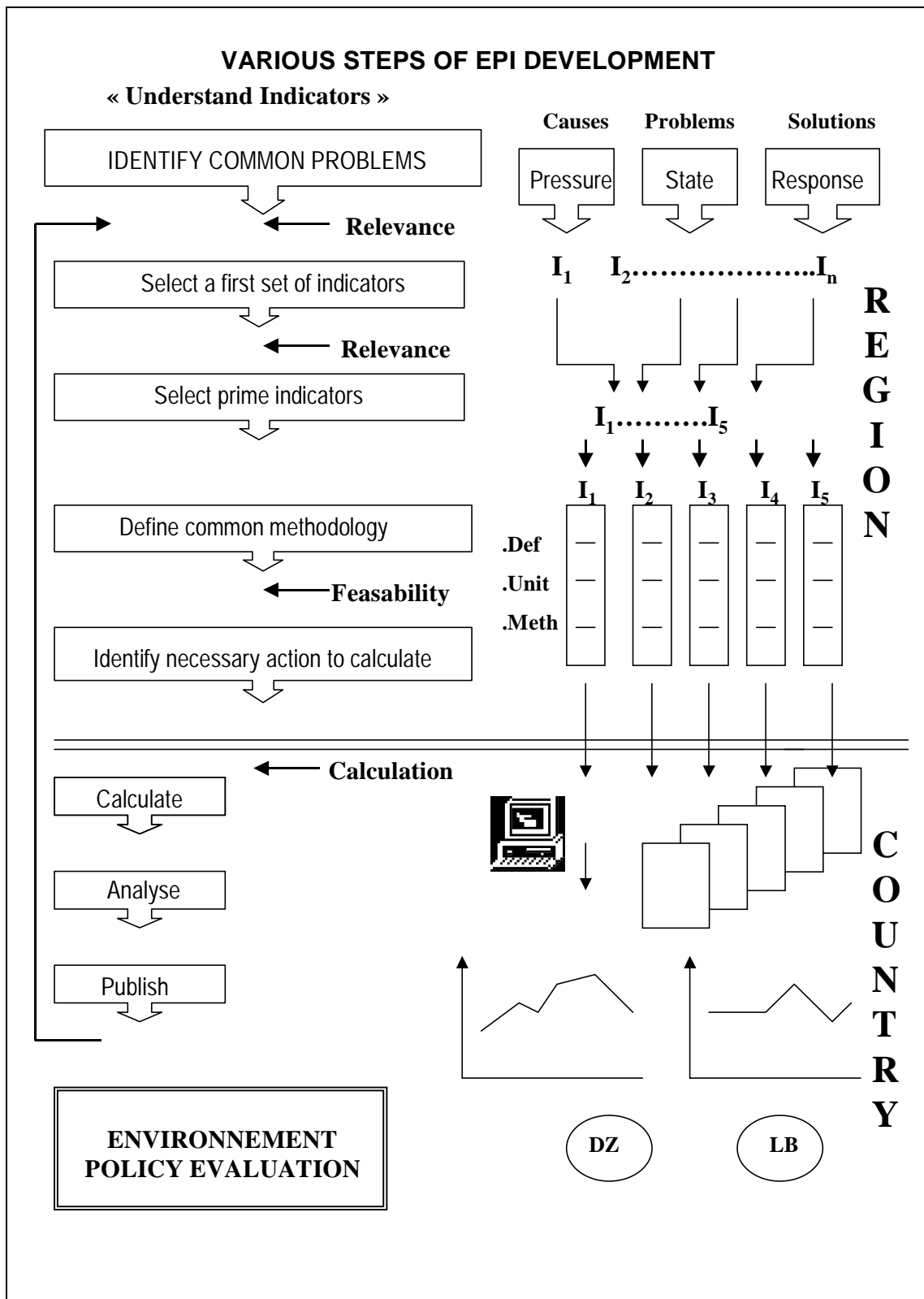
² See Appendix 1

RECOMMENDATIONS FOR FOLLOW UP ACTION
FOR EACH TOPIC : AIR POLLUTION, SOLID WASTE, WATER MANAGEMENT :

EP Indicator Main Chronological Development Stages	At Mediterranean Level	At National Level
1. Defining Strategies/Objectives (especially for air pollution and solid waste management)	<ul style="list-style-type: none"> • Comparing strategies at regional level • Summarising the various possible economic approaches to cost recovery 	<ul style="list-style-type: none"> • Assisting each country in devising its strategy in air pollution or solid waste management : <ul style="list-style-type: none"> – exchanges with more advanced countries ; seminars • Feasibility studies on possible means of implementation for cost recovery • Identifying actors and promoting inter-institutional co-ordination
2. Increasing Decision Maker Awareness of EPI usefulness	<ul style="list-style-type: none"> • Regional booklet on EPI usefulness 	<ul style="list-style-type: none"> • Workshops, booklets (in relation with Capacity 21)
3. Increasing Capacity Building on EPI practice	<ul style="list-style-type: none"> • Providing information on on-going works on indicators (Web) ; feedback on sub-regional workshops ; regional workshop • Handbook on EPI practice 	<ul style="list-style-type: none"> • Improving project design on existing on-going projects (involving national teams in the design process in EPI practise) for instance in Medbranch Projects
4. Assessing Relevance/ Selection	<ul style="list-style-type: none"> • EPI Workshops in 1998 	<ul style="list-style-type: none"> • Assessing political relevance of the 35 selected indicators
5. Setting Reference Values	<ul style="list-style-type: none"> • Comparing reference values in different countries 	<ul style="list-style-type: none"> • Assisting the country in quantifying objectives (planning)
6. Devising Approaches <ul style="list-style-type: none"> • Detailed definitions • Methods of data collection • Frequency 	<ul style="list-style-type: none"> • Harmonising and precise definitions 	<ul style="list-style-type: none"> • Testing definitions and comparing them with national indicators • Heightening the water resource exploitability concept
7. Assessing Data Availability : <ul style="list-style-type: none"> • Available data • Unavailable data <ul style="list-style-type: none"> – existing data – non-existent data 		<ul style="list-style-type: none"> • Assessing data availability for the selected indicators (at least 35) : identifying data sources
8. Collecting Available Data		<ul style="list-style-type: none"> • Collecting available data for selected indicators, Assessing quality

EP Indicator Main Chronological Development Stages	At Mediterranean Level	At National Level
9 Assessing Conditions for Providing (non- available) Data on a Regular Basis		<p>Technical and institutional assistance :</p> <ul style="list-style-type: none"> • Feasibility study for the calculation of selected indicators on a regular basis : identifying the necessary means and the organisation to be set up
10. Improving Data Production and Processing Methods	<ul style="list-style-type: none"> • Developing standards and processes for data 	<ul style="list-style-type: none"> • On site visits to air quality measurement networks or sanitary landfill • Organise training on: <ul style="list-style-type: none"> – data collection and processing – optimising measurement networks – data computation and analysis – the use of health registers for monitoring the effects of air pollution
11. Improving Information Systems	<ul style="list-style-type: none"> • Developing standards for data exchanges 	<ul style="list-style-type: none"> • Assisting countries in project formulation for setting up information systems
12. Calculating Indicators		<ul style="list-style-type: none"> • Calculating indicators once data is available
13. Communicating, Publishing Indicators	<ul style="list-style-type: none"> • Publishing a regional booklet on current strategies and issues using already available indicators 	<ul style="list-style-type: none"> • Publishing a booklet on current strategies and issues using the calculated indicators
14. Revise Indicators ?		

APPENDIX 1 : DIAGRAM OF THE VARIOUS EPI DEVELOPMENT STAGES



**APPENDIX 2 : FINAL LIST OF INDICATORS SELECTED THROUGH THE ENTIRE
PROCESS OF THE 3 WORKSHOPS**

INDICATOR	PSR TYPE	N° OF THE QUEST. SHEET (*)	RABAT SELECTION (**)	CAIRO SELECTION (**)	SPLIT SELECTION (**)
AIR					
Green House Gas emissions	P	1	1	1	
SOx emissions	P	3	1	1	1
NOx emissions	P	4	1	1	1
Energy Intensity	P	7		1	
Frequency of Excess over Standards	E	9	1		1
Excessive Respiratory Disorders due to Air Pollution	R	10	1	1	
Role of Renewable Energies in Energy Balance	R	11	1		
Expenditures Devoted to Air Pollution Abatement	R	14			1
Proportion of Clean Fuels in Total Fuel Consumption		-	1	1	1
SOLID WASTE					
Municipal Solid Waste Generation	P	1	1	1	1
Composition of Municipal Waste	P	2	1		
Collection Rate of Municipal Waste	R	3	1	1	
Destination of Collected Municipal Waste	R	4		1	1
Hazardous Waste Generation	P	8	1	1	1
Contaminated Area	E	9			1
Proportion of MSW Treated in Discharges	R		1		
Cost Recovery	R	-	1	1	1

(*) N of the sheet : refers to the previous questionnaire; for new indicators, a new indicator sheet should be drawn up.

(**) : 1 : means selected

In bold, the common set for the 13 countries is shown

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INDICATOR	PSR TYPE	N° OF THE QUEST. SHEET (*)	SELECTION RABAT (**)	SELECTION CAIRO (**)	SELECTION SPLIT (**)
WATER RESOURCES AND DEMAND					
Water Mobilisation Rate	R	1'	1		
Aquifer Over Exploitation Index	P	4	1		1
Density of Hydrological Measurements Networks	R	5	1		
On-farm Irrigation Efficiency	P	10	1	1	1
Exploitation Index	P	11	1		1
Water final consumption index	P	12		1	
Index of Diversification of Water Supply	R	14	1	1	
Drinking Water Demand Efficiency	P	15	1	1	1
Water unit productivity in agriculture	R			1	
Cost Recovery Rate	P	-			1
POLLUTION AND WATER QUALITY					
Water Quality Indicator	E	1	1	1	1
Agro-Chemicals Use Indicators	P	2'	1	1	1
Drinking Water Supply Compliance Indicators	P	5	1	1	1
Waste Water Collection and Treatment Indicator	R	6'	1	1	1
Industrial Waste Water Treatment	R	8'	1	1	1
Pollution Flows	P		1		
Recovery Rate of Water Treatment and Protection	R		1		
Collective Treatment Efficiency	R		1		

(*) N of the sheet : refers to the previous questionnaire; for new indicators, a new indicator sheet should be drawn up.

(**) : 1 : means selected

In bold, the common set for the 13 countries is shown