



A SUSTAINABLE DEVELOPMENT FOR THE MEDITERRANEAN

Progressing toward the "good practices"

Project Feasibility - Summary

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Project aims

Collecting regularly environmental information and socioeconomic data gives a descriptive snapshot of a particular situation or a specific sector. It even allows to highlight the progress by comparing two years or more countries evolution. However consolidate such information in order to assess the "sustainable" character of a development process remain controversial. The Blue Plan's ambition is to contribute to this reflection in the Mediterranean area by providing tools that allow to observe development trajectories. Two directives make it possible:

- Using the existing indicators that are known and recognized as a mean to follow-up the sustainable development evolution.
- Implementing methods to measure the countries global sustainable development performances.

Beyond the common use of indicators, the Blue Plan aims at **producing and diffusing a regular classification of the Mediterranean countries according to the progress realized towards a sustainable development**. On that way, the purpose is to **use multicriteria analysis methodologies in order to assess countries performances on sustainable development**. Two stages are required as follows:

- Organizing into a hierarchy of indicators the various prerogatives matching with a sustainable development according to the Mediterranean priorities.
- Rating countries and sorting them into categories bounded by predefined profiles.

Through its transverse intervention the Blue Plan acts on each of the main topics of the sustainable development (environmental, economic, social) and defines indicators to estimate their effects on life quality and welfare. In this prospect, a feasibility test was realized to experiment the application of multicriteria analysis on the sustainable development ground. It is important to notice that such a methodology was formerly used in management of projects and business activities. It will now be applied to follow-up the Mediterranean Strategy of Sustainable Development (MSSD).

The results are mostly significant and show that the methodology proposed agrees with the assessment of countries convergence towards predefined references as well as the estimation of their evolution through a comparative approach. In the long run, the final objective is to implement a decision making aid process for sustainable development. This exercise could be useful especially to follow-up the progress realized on national and regional scales toward "good practices".

Working assumptions

The project foreseen intends to report the MSSD accomplishment levels on its 9 priority topics (water, energy, transport, tourism, agriculture, urbanization, coast, regional cooperation and human resources). A set of 130 Indicators for the Mediterranean Sustainable Development (MSDI) was introduced in 1997 with the MED 21 Diary to follow-up the sustainable development in the Mediterranean region.

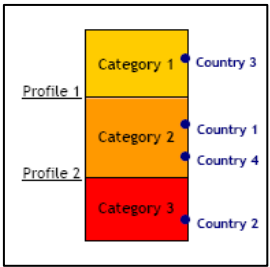
The Blue Plan emphasizes 34 priority indicators annexed to the MSSD. Actually, 30 indicators were collected from the available international data bases (UNSD, FAO, WDI, WRI) and allowed to cover as far as possible the subjects handled by the MSSD (19 are priorities, 5 are substitutes and 6 are complements). These indicators were selected so that they are measurable, comprehensible, transparent and analytically relevant in order to get more credibility.

Methodology steps

The evaluation performed agrees with the perspectives of assessing countries progresses regarding the MSSD by identifying "good practices" as references and relevant indicators as key-signals. The methodology used allies benchmarking and rating processes. Mediterranean countries are ranked on an increased axis according to their performance levels. They are also compared with two predefined profiles. Each indicator was weighted in order to give a priority scale to the MSSD directives. The weighting system was built from statistical studies and adjusted if necessary to obtain a relevant hierarchy.

Indicators impacts on sustainability were therefore explained by a "cause and effect" relationship linking the strategy implementation (reflected by the MSDI) with its consequences on welfare and environment quality (reflected by the E-HDI). We underline that E-HDI is a synthetic indicator specially created for the feasibility study to have a variable resuming the 3 spheres of the sustainable development (environment, economy, social). This indicator consisted in 2/3 of the HDI of the UNDP and in 1/3 of the ecological footprint of the WWF (including a "water" component that have been added specially for the feasibility test).

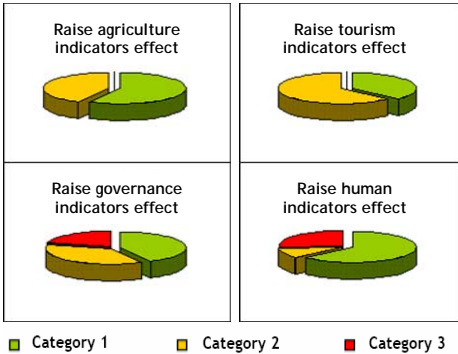
Countries were sorted in three categories bounded by two profiles. These benchmarks were selected to reflect two levels of "good practices" inspired from concrete situations. Besides the central category volume is more important than the two other extremes. A country ranked within category 1 (best) outstrips profile 1 and, by the way, "do better" than 70% of the Mediterranean references. A country which is a part of category 2 outstrips 30% of the high references and is outstripped by 30% of the bottom references. Finally, a country ranked within category 3 (worst) is outstripped by the second profile and "do worse" than 70% of the Mediterranean references.



Countries are compared with both of the two profiles then ranked within the three predetermined categories. Each country classification is independent from the others and has no influence on their sorting. Such a method allows to compare elements by pairs, taking into account uncertainty or indecision that may modify the process.

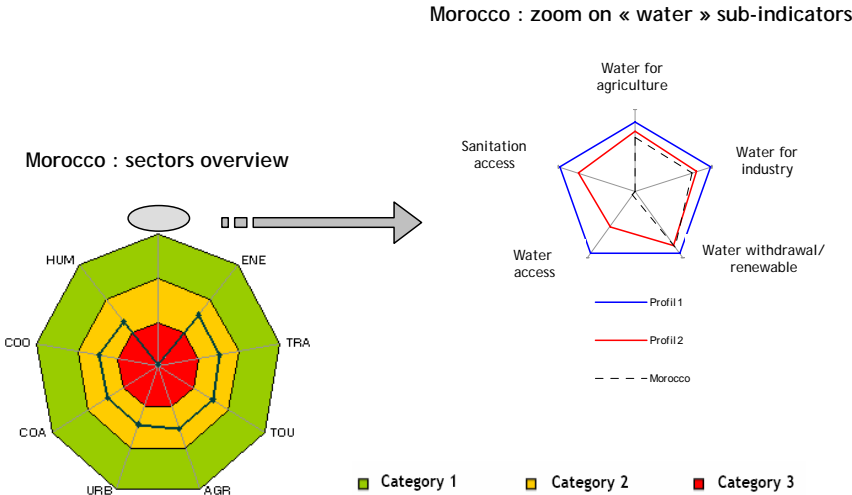
Application results

The results concern 19 Mediterranean countries from the North, South and East sides (2003 data). Model sensibility to weights variations was tested to individualize each indicator's effect on the final rating. The results show that "tourism" and "agriculture" sectors are the key-fields of the region (category 3 is empty) whereas "human development" and "governance" have to be improved (category 3 is significant).



A first table represents countries distribution on 3 groups around the profiles. It gives a snapshot of 3 possible sustainable development situations comparing to "good practices". A second table resumes E-HDI countries performances and shows that the gap between the Mediterranean sides is insignificant. Examining the problem through an MSDI/E-HDI angle allows to analyse it through a "cause and effect" approach and to foresee the MSSD impacts on environment and human welfare (view the tables on the right).

The results could be exposed also country by country. The situation is viewed through the MSSD topics in general and its sub-components in particular. Thanks to this distribution, it is possible to identify the domains which requires a more detailed study. A radar graph represents country's performances on each of 9 MSSD topics. So, it makes it possible to isolate a sector and to explain its sub-components. This practice is essential when a country emphasises some weaknesses on a sector in particular. Morocco weak-points in "water" sector is an interesting example (view the radar graph below).



Wider perspectives interest

The sustainable development became a major concern, pulling in parallel a strong information demand concerning its evaluation. The decision-makers seek for further assessment of reliable and synthesized information about environment. The aggregation obtained by combining two (or more) indicators allows to describe simply the reality of a complex concept. This practice, generally used by rating agencies, is certainly accessible to common people, but remains subject to criticism. Indeed, too much synthesized information means too less transparency and raises the risk of using "black box" processes. Aggregated indications are often qualified to be "opaque". It means that they are a mix in which it is impossible to distinguish precisely the effects of the various sub-components. It is also impossible to compare the performances on a criterion in particular.

Multicriteria analysis proposes a wider operational margin and is more pertinent. This type of method achieves notable advancements during the last twenty years and profoundly modifies the traditional tools on two levels: takes into account multiple objectives (comparing to monocriteria methods) and various preferences structures (comparing to optimization). It introduces indicators hierarchy through a weighting system as well as "benchmarks" through a set of profiles. Actually, multicriteria decision aid tools were used to manage large-scale projects. The *Washington Public Power Supply System* plan in the American energy sector is a good example (WPPSS-1974). It is also the case of the French transport sector with the extension of the subway network (RATP-1979).

The feasibility study allowed to test the possibility of applying multicriteria analysis as an innovative making decision assistant to sustainable development field. This methodology seems to be compatible with the Mediterranean sustainable development performances assessment. Such a tool allows to cover all of the MSSD aspects and to compare countries with references. All parameters and algorithms developed in this purpose were fitted to include environmental characteristics as well as the specificities of the region targeted. This first essay concerned a single year and gave encouraging results, opening the way to build-up more detailed studies. The aim is now to enlarge this basic feasibility project to a wider application. The prospect is to analyze the Mediterranean convergence dynamics on a decade (1995-2005) and update regularly the observed results.