

ECONOMICS & ICZM

factsheet

Bite-sized introductions to
Sustainable Development
themes

SMAP III Technical Assistance
www.smap.eu

This project is funded by the European Union



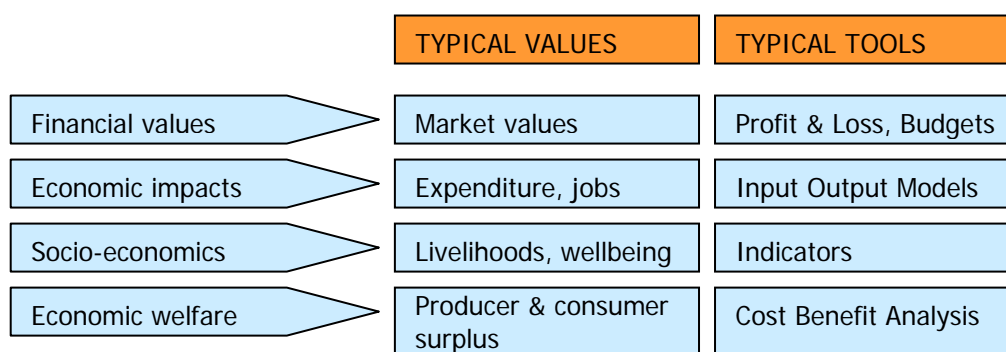
Environment & Sustainable Development
in the Mediterranean Region



WHAT ?

'**Economics**' is a social science concerning the study of production, distribution and consumption of 'goods' and 'services'. It involves assessing human behaviour and choices in order to make better decisions regarding the allocation of limited resources that have competing uses. The overall aim is thus to maximise benefits to society, which is, in theory, completely aligned to the goal of integrated coastal zone management (ICZM).

In its widest sense, 'economics' relating to ICZM covers several alternative approaches that use different types of 'value' based approaches to support decision-making, as shown in the figure below. '**Financial analysis**' focuses on prices actually paid in markets to assess cash flows and the financial viability of companies, organisations and projects. '**Economic impact analysis**' is concerned with establishing the contribution to, or effect on, local, regional and national economies of expenditures, jobs and incomes from alternative projects and programmes. '**Socio-economic analysis**' assesses the social, economic, political and cultural aspects of individuals, organisations and communities, with a particular focus on livelihoods and wellbeing. Finally, '**economic welfare analysis**' is the main component of economics that helps guide the optimum allocation of scarce resources to maximise benefits to society. An increasingly important strand of welfare economics is '**environmental economics**', which recognises that 'the economy' and 'the environment' are connected.



As explained in the [Environmental Economics](#) SD factsheet there are three core aspects of environmental economics, each of which have significant potential relevance for implementing ICZM. These are '**environmental valuation**' (i.e. identifying and valuing environmental costs and benefits), '**market based instruments**' (i.e. changing the way the markets work to account for environmental values), and '**Green National Accounting**' (i.e. changing the way development is measured by accounting for changes in environmental stocks).

WHY ?

The coastal resources of the Mediterranean region are under significant threat especially from over exploitation, uncontrolled development and dredging, conflicting uses and pollution. This results in considerable loss of 'value' over the longer term at a local and national level. A key contributory factor is poorly managed coastal resources, exacerbated by a lack of management resources, inappropriate decisions being made because the true economic and socio-economic value of the environment is not fully considered, and the wrong economic incentives in place because environmental values are not reflected in market prices. Economic approaches can all add a powerful and important dimension to ICZM to help rectify these problems.

Financial analysis can be used to help ensure ICZM management bodies and coastal businesses are financially viable with an appropriate stream of sustainable revenues. **Economic impact analysis** can help ensure that the development options selected maximise long term revenues, jobs and leverage the most regional investment. **Socio-economic analysis** can help inform decisions to make sure that the poor and vulnerable are and catered for. **Economic welfare analysis**, can help ensure that alternative projects, programmes and policies provide the greatest long term net benefit to society from a national perspective. Typically Cost Benefit Analysis is used to assess overall costs and benefits, and the option with the greatest net benefit is selected. In addition, through an improved understanding of environmental values, new market based instruments can be adopted to change the way market incentive structures work (e.g. introducing tourism user charges and environmental taxes).

WHEN ?

Such economic approaches can be used at many stages of decision-making but are particularly useful:

- when undertaking option appraisals to assess alternative ICZM projects or programmes
- when considering policy reform relating to the coastal zone
- when considering sustainable financing of natural coastal assets and coast related environmental infrastructure (e.g. waste treatment plants)
- when determining the level of compensation for environmental damages.

The specific economic approach(es) used will depend on the nature and objective of the issue being evaluated. Note that when undertaking an Environmental Impact Assessment, it is usually necessary to incorporate an economic and/or socio-economic impact assessment as part of it.

WHO ?

It is usually government organisations (such as the Ministries of Environment, Transport or Tourism) or national and local agencies that commission economics studies. Increasingly non-governmental organisations such as WWF commission such studies to highlight the benefits of improved decision-making. Studies are generally undertaken by consultants, universities, NGOs and research institutions. Those that commission and undertake the study ideally need some experience and training in economics, or at least access to an appropriate level of expert advice.

HOW ?

Firstly, it is valuable to understand the different roles and outputs that alternative economic approaches provide. One should then ensure any planned economic study has clearly defined objectives. Finally, it is then important to select appropriate techniques to use and involve people with the right skills.

Data requirements are often extensive, meaning that a broad range of stakeholders should usually be consulted to obtain relevant data and opinions, generally using questionnaires, surveys and/or focus groups. For the more complex approaches and analyses where more rigorous results are required, it is sometimes necessary to use economic modelling and econometric analysis to predict regional economic impacts and understand the relationship between different variables. Costs vary considerably depending on the nature and extent of the study.

WHERE ?

Economic studies are increasingly being undertaken in the Mediterranean region to inform coastal zone management, and new market based mechanisms are slowly being adopted. Examples include:

- According to the World Bank and METAP (2002), coastal degradation in Tunisia may cause a loss of 0.2-0.3% GDP, for example through impacts on tourism and fisheries.
- An economic valuation of the Lebanese north coast for the SMAP III IMAC project used a Contingent Valuation Method survey (i.e. questionnaire to assess individuals' "willingness-to-pay" for a specific environmental asset) to estimate a regional value of 4.4 million euros per annum to preserve the coast (Doumani, 2007).
- A socio-economic study and institutional analysis was undertaken in Nador, Morocco to ascertain baseline conditions to inform improved coastal zone management (Khattabi et al, 2007).
- A Moroccan study identified potential market-based instruments to raise revenues for an environmental fund and improve environmental management and infrastructure relating to the coastal zone and associated aspects such as water, air, solid waste and landscape (Maktit, 2007).

SD LINKS

SMAP Factsheets: Environmental Economics & SD, ICZM Factsheets (series), Sustainable Finance

SUGGESTED READING

<http://go.worldbank.org/XBSSSHXD30>

http://www.adb.org/Documents/Guidelines/Eco_Analysis/default.asp

<http://www.jncc.gov.uk/page-4065>

[http://Inweb18.worldbank.org/mna/mena.nsf/Attachments/Sustainability+of+ICZM/\\$File/ICZM-skye.pdf](http://Inweb18.worldbank.org/mna/mena.nsf/Attachments/Sustainability+of+ICZM/$File/ICZM-skye.pdf)