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SUSTAINABILITY OF SAP

GUIDELINE FOR ECONOMIC INSTRUMENTS FOR THE PREPARATION OF THE SAP/NAP TO ADDRESS MARINE POLLUTION FROM LAND-BASED ACTIVITIES IN 12 GEF ELIGIBLE COUNTRIES

In cooperation with

GEF

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PRIORITY ACTIONS PROGRAMME

GEF

SUSTAINABILITY OF SAP

GUIDELINE FOR ECONOMIC INSTRUMENTS FOR THE PREPARATION OF THE SAP/NAP TO ADDRESS MARINE POLLUTION FROM LAND-BASED ACTIVITIES in 12 GEF ELIGIBLE COUNTRIES

Priority Actions Programme
Regional Activity Centre
Split, July 2003

Contents

1. Introduction

With support from the Global Environment Facility (GEF), a project has been initiated for the determination of Priority Actions for the further elaboration and implementation of Strategic Action Programme (SAP) to address pollution from land-based activities for the Mediterranean Sea (SAP MED). The overall goal of this three-year project is to improve the quality of the marine environment in the Mediterranean region by a better shared-management of land-based pollution through improved international co-operation.

The Priority Actions Programme Regional Activity Centre (PAP/RAC) is implementing this project, which is expected to assist in the development of administrative, legal and fiscal mechanisms for the sustainable financing of the implementation of SAP at country level. One of these mechanisms is the use of economic instruments to channel economic activities in directions that use natural resources in an environmentally and financially sustainable manner. These activities will be undertaken in close co-operation with country partners, relevant international organisations and institutions, and relevant regional experts.

In the framework of this project, the second analysis of the use of economic instruments (EIs) has been carried out by an international team of experts in economic instruments. Five pilot projects and one case study on introducing new/adapted economic instruments have been developed and prepared for implementation. Seven international experts in economic instruments are directly involved in the pilot projects. Four training courses have been held from October 2002 to January 2003 (Croatia, Albania, Bosnia and Herzegovina, and Algeria). The implementation stage of all projects started in January 2003.

As part of the following stage of the project, proposals for introducing new or/and adapting the existing economic instruments to address marine pollution from land-based sources, in GEF eligible countries, will be prepared and introduced to the National Action Plans (NAPs). In order to facilitate this process, it was recommended that guidelines should be given to the countries in the preparation of proposals for the introduction of economic instruments.

NAPs should ensure the attainment of the targets proposed within the SAP MED project, for the following:
1. Urban environment
   - municipal sewage (section 5.1.1, page 8)
   - urban solid waste (section 5.1.2, page 9)
   - air pollution (section 5.1.3, page10)
2. Industrial development (section 5.2, page 11)
   - persistent organic pollutants (section 5.2.1, page 15, 16)
   - heavy metals and organometallic compounds (section 5.2.1, page 17, 19, 20)
   - organohalogen compounds (section 5.2.3, page 23)
   - radioactive substances (section 5.2.4, page 24)
   - nutrients and suspended solids (section 5.2.5, page 26, 27)
   - hazardous wastes (section 5.2.6, page 29, 30, 31)
3. Physical alterations and destruction of habitats (section 5.3, page 32)

In order to be in line with the SAP MED targets and objectives, the instruments that are to be proposed for implementation in the framework of the NAPs could be divided into three groups:
- economic instruments that are to be introduced in the short term - by 2007;
- economic instruments that are to be introduced in the medium term - by 2015; and
- economic instruments that are to be introduced in the long term - by 2025.

NAP is to address in detail the instruments that are to be introduced in the short term. Detailed instructions on how to do this are provided in the following chapter.

In the case of economic instruments that are to be introduced in the short term, all the sections of the Proposal have to be filled in (guidelines are given in the following part of this document, chapter 3).

However, as far as the instruments that are to be introduced in the middle and in the long term are concerned, project managers will be asked to provide answers only to the first two sections of the Proposal *(I. Introduction and 2. Statement of EIs).*

Draft guidelines are structured as follows: Section 2 identifies the main issues that policy makers need to address in preparing the proposal – the objectives, key performance indicators, monitoring of progress, the consultation process, the administrative and legal procedures that have to be followed and arrangements for reviewing the results. These are discussed in the context of the pollution problems as laid out above and drawing on the lessons learnt through the current round of EIs that are now being implemented. Section 3 provides guidance on how the overall proposal should be structured, taking into consideration a log frame within which the information should be provided. This has the advantage of ensuring uniformity in the submission of proposals, as well as guaranteeing that all the key issues are addressed (each 'box' has to be filled or some information provided as to why it should not be filled). The aim should be to keep the document to 10-15 pages, but to structure it in such a way that all key bits of information are provided and extraneous data are excluded.

2. Key Issues

The key issues that must be addressed in any proposal are:

i. Overall Development Objectives
ii. Key Environmental Objectives
iii. Key Financial Objectives
iv. Key Equity Objectives
v. Consultations of Stakeholders
vi. Administrative and Legal Issues that Need to be Addressed
vii. Design of Instrument
viii. Arrangements for Final Review

These can be divided into two groups: Issues (i) to (iv) relate to the objectives of introducing the instrument; and issues (v) to (viii) relate to the implementation of the instrument. In Section 3, where a log frame is presented, these two sets of issues are dealt with separately.

Before we go into these in detail, it is useful to provide an overview of the classification and definitions of economic instruments, as, well as of the areas of concern that SAP MED aims to address and, in each case, the kinds of EIs that could make a contribution to solving that problem. These are given in Annex I. The table lists a number of common EIs that have been used in various countries for precisely these kinds of problems and may offer some guidance on what is available for the EIs in the programme countries.

2.1 Overall Development Objectives

This is the highest level of objective for any policy and in the SAP MED context the identified ones include:

- Improving living standards for local communities;

- Improving the delivery and efficiency of specified public services in the region; and
- Creating sustainable livelihoods for communities through the sustainable exploitation of local natural resources.

Whatever objectives are chosen, the proposal must provide some information on **key indicators** for measuring the achievement of the objectives (performance indicators) and information on how these will be **monitored**. It should also indicate what critical assumptions have been made about the impact of the EI on the development objectives. For example, the objective may be to increase incomes of small fishermen by setting up an enterprise fund financed through the establishment of local charge on large trawlers that enter coastal waters. Performance indicator would be the real income of the selected community and this would be monitored through a Living Standards Measurement Survey. Critical assumptions to the success of the development objective are: (a) that large trawlers will simply not enter the waters; and (b) local opportunities exist that can indeed be exploited by these communities, i.e. they have the skills, etc.

It goes without saying that the objective of increasing real incomes will be influenced by many factors, of which the EI is but one. Ideally one should have some way of measuring the contribution of the project to the indicator, in a dynamic context. This can be quite a challenge and one that will almost certainly require both monitoring as well as some modelling of sources of income. The proposal should at least give this some thought and consider what measures can be put in place for such an assessment.

2.2 Key Environmental Objectives

It is important to state explicitly the key environmental objectives of the programme. Again, drawing on the SAP MED documentation these could be one or more of the following:

- Reduce degradation of coastal and marine systems;
- Prevent unsustainable exploitation of coastal and marine resources;
- Arrest loss of habitats supporting living resources;
- Arrest decline in biodiversity, loss of endangered species;
- Reduce hazards and risks to the coastal zone and marine environment; and
- Improve the local environment (landscape, solid waste disposal, air quality, delivery of acceptable water to households).

As with the higher level objective, the proposals should provide information on how the state of the environment with respect to the objective is measured, and how it will be monitored. Any critical assumptions on how this objective will be met from the EI should be stated. Taking the same example as in the previous section, the environmental objective could be to reduce unsustainable exploitation of coastal fishery resources. The performance indicator would be some measure of fish populations, which would be monitored as part of some programme focusing on the affected area. Critical assumptions are: (a) trawlers will indeed reduce their activity; and (b) local fishermen will not make up the 'gap'. Note that what is critical to success here – that trawlers reduce activity can be critical to failure for the previous objective – if there is too large a fall, charge revenues will be low. The design of the EI has to find a balance between these, which is why it helps to lay out these assumptions.

In some cases the environmental objective could be quantitative, as, for example, in the case of air quality there is a target of meeting quality standards as specified in the Land-based Sources (LBS) Protocol by 2025. Similar targets exist for sewerage, solid waste, etc. Of course, there is no reason for the EI to be solely responsible for such a target. It may be part of a package of measures, in which case the contribution of the EI in meeting the target may

be difficult to estimate, posing a similar problem to the one identified in the previous section. Although it is not straightforward, the proposal should give some consideration as to how the team will make an assessment of the impact of the project on the indicator.

2.3 Key Financial Objectives

For many EIs, there is a key financial objective, which can be either to mobilise a certain amount of funds for certain purposes, or to ensure that any subsidy paid out as part of the programme does not exceed a certain sum. For some instruments the objective may be fiscal neutrality. For example, a higher tax on leaded petrol my be accompanied by a slightly lower tax on unleaded petrol leaving total revenue unchanged. Of course, this is not necessary – the government might want to increase total tax revenue by this means. Whatever the objective, it should be stated clearly and the EI be designed in a manner consistent with that objective.

Different EIs do have different objectives. Whatever objective is chosen, the proposers need to state what the performance indicator is for that objective, and how it will be monitored. Some thought needs also to be given to what critical assumptions hold for the EI to meet its financial objective. As an example consider a charge on disposal cans. The financial objective could be ensure that revenues cover the additional costs of collection that improper disposal places on the local authorities. The indicator would be total revenues and total spending on collection and the monitoring effort would have to go into collecting the information on what is actually spent collecting improperly disposed cans. This may not be easy – some 'short cut' or approximation may be necessary. In any event some plan for how this will be done has to be introduced.

One addition piece of information that should be supplied here is which financing principle the EI intends to follow. Broadly the options are: (a) Polluter Pays Principle (PPP); (b) User Pays Principle (UPP); and (c) Budget or External Funding. If the charge is imposed on the polluter **and if the revenues are not recycled back to him**, we can say that the full PPP is applied. If revenues are recycled, we have a partial PPP. If a charge is imposed on local communities who use, say, a park or a beach, to clean up the waste dumped by outsiders, then we have a case of UPP. If on the other hand the government supplements the costs through the general budget we have partial UPP and partial budget financing. A breakdown along these lines would be useful but is not essential for the proposal. For details see Markandya (2002).

2.4 Key Equity Objectives

Frequently the EI will have specific equity objectives (e.g. to increase incomes among poor people close to a protected area). In other cases, the EI may not have an equity objective but it has to be mindful of any negative equity impacts and the EI has to be designed to prevent them.

The most frequent problem of equity arises when a charge or tax is imposed and it has to be paid by the poor, who cannot afford it. In such circumstances some form of social protection has to be put in place. The design of this will depend on who is affected and how much is the impact. Schemes that are available are discussed in World Bank (2000) and Markandya and Streimikiene (2003). For example, it is possible to introduce 'life line' rates for low levels of supply of municipal services (i.e. low rates that apply for small amounts of water/waste, etc.). Alternatively, exemption schemes can be drawn up based on income and other 'means' tests. In any event, the proposer has to indicate (a) what measures will be taken to determine whether there is an equity issue (b) what plans are being made to address the issue and (c) how it will be monitored. These correspond to the performance indicators referred to in previous sections. The plans for addressing it will be presented in greater detail under 2.7, where issues of design are discussed.

Other equity issues that may need to be addressed are:

- EIs that tackle industrial pollution, where the level of the charge could be such as to make the enterprise uncompetitive *vis-à-vis* other producers who are not so taxed.
- Product charges (e.g. on fertilisers or materials that are costly to dispose such as batteries), where there may be an impact on low income households.
- Programmes that specifically seek to raise incomes in poor communities through a charge on tourists or other users of natural resources in the area, where it is critical to lay out what will be the performance indicator and how it will be monitored.

As a preliminary step it is advisable to collect as much data as possible on the likely impacted groups. If this is sufficient to provide a baseline, then a major tool for the monitoring of success of the EI has been laid. If such data are not available, some measures will have to be put in place to collect it, prior to the introduction of the instrument.

This completes the review of the objectives of the EI. The next four issues relate to the implementation of the EI itself.

2.5 Consultations of Stakeholders

The first stage of the implementation of the EI consists of consultations with stakeholders. This is a critical step in the whole process. Groups with whom the programme should be discussed include:

- Political bodies that will be responsible for approving any EI;
- Government agencies who will be responsible for implementing it; and
- Individuals and organisations that will be impacted by the EI.

The proposal should state what plans are in place for such consultations in the first place. Each group will have to be provided with key information about the proposal, what its objectives are and what its impacts are likely to be. This will be necessarily approximate, as the full analysis will not have been done. Furthermore, as is likely, consultations will result in some modifications of the programme, it may be necessary to confirm these changes with the stakeholders, although a full second set of consultations should not generally be necessary.

Consultations should be widely advertised and any documentation relating to the EI be disseminated in a language that is understood by all key parties affected. A report on the results of the consultations and how the issues raised in them have been addressed is an expected output.

2.6 Administrative and Legal Arrangements

The second step in the implementation of the EI is to spell out the legal and administrative arrangements. Issues that need to be clarified are:

- Do any legal changes have to be introduced prior to implementation? If so, what steps have been put in place to introduce them?
- Which agency(ies) will be responsible for implementation? What will be the responsibility of each agency? What difficulties are anticipated in getting these bodies to co-operate? What actions are planned to overcoming these difficulties?

In some cases, specific technical assistance will have to be provided to the main agency that is responsible for implementation. If this is the case, plans for providing such assistance,

including sources of finance, have to be included in the dossier that is submitted with the proposal.

2.7 Design of the EI

The main activity in the design of the EI is the selection of values of the key parameters. These may include charge rates, criteria for selection of groups to which they apply (who if anyone will be exempt), sharing of revenues (e.g. what percentage goes to which agency), how long will the EI be in place, arrangements for revising the EI (when will there be a review of the impacts of the EI and what changes will be considered at that stage), and finally are there be any plans for the extension of the scheme beyond the group/area to which it is first applied?

To answer these questions the team may draw on one or more models that link the EI to the objectives described above. Examples of models are:

- A model to estimate the impact of the EI on environmental targets;
- A model to estimate the impact of the EI on economic targets – e.g. incomes of affected individuals and companies; and
- A model to estimate the effect of the EI on financial revenues of public agencies.

Critical to all the environmental issues will be the question of measurement. How will the variable that is to be the basis of the EI be measured? Are the methods reliable and robust? If not, what can be done to improve their effectiveness?

Not all these issues will be addressed by the use of models but where a model has been used, the proposal should describe its main features, and its advantages and limitations[1]. If a model is not used, some description of how the values of the key parameters have been chosen is required. They may be determined based on similar schemes applied elsewhere, or selected via a political compromise process, in which case some analysis will be required to see what the likely impacts will be.

The information on the design of the EI should be provided in the main report and in the log frame and is probably the most important part of the package of information in the proposal. Hence a substantial effort should go into this aspect.

2.8 Review Arrangements

The proposal should include some discussion of how it will be reviewed during and after the implementation period is complete. There could an annual review, for example, followed by a final review; or a mid-term and a final review. The section should describe who will conduct the review, who will be responsible for providing the information, and what actions, if any, will follow any review (e.g. change in the values of key parameters, stopping the implementation phase, extending it to other areas, etc.)

3. Structure of Proposal

The proposal should be completed out in the following sections:

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[1] In some cases the 'model' could be quite simple. For example, a 'demand' function linking amount of waste generated to the price charged per ton for its collection would constitute a model. On the other hand, the model could be quite sophisticated. An example would be a Computable General Equilibrium Model that includes economic and environmental variables and determines their values by looking at all markets simultaneously.

3.1 Introduction

Describe the issue being addressed, why it is important and what the background to the problem is.

3.2 Statement of EI

State exactly what the EI will consist of, to whom it will apply, and for how long it will be implemented.

3.3 Timetable

Provide a timetable for the following steps:

Table 1: *Timetable*

Initial discussions and approval in principle	
Consultations Period	
Legal Review and Clearance	
Administrative Plan	
Design of EI	
Implementation Period	
Review Period	

Times for some of these steps may overlap.

3.4 Objectives of the EI

Table 2: *Log Frame for Objectives*

Hierarchy of Objectives	Key Performance Indicators	Monitoring and Evaluation	Critical Assumptions (*)
Development Objective:			
Environmental Objective:			
Financial Objective:			
Equity Objective:			

(*) How EI will guarantee that objectives will be met

What are the objectives?

- *Developmental* – Provide information on key indicators, and how they will be monitored, and what critical assumptions are made about the relationship between this objective and the EI. In other words, elaborate on the information given in the log frame.
- *Environmental* - Provide information on how the state of the environment with respect to the objective is measured, and how it will be monitored. Any critical assumptions on how this objective will be met from the EI should be stated. Where there is a quantitative target, this should be stated. Finally, how the impact of the EI on the objectives should be discussed.
- *Financial* – State the objective as precisely as possible and discuss what indicator will be used to monitor progress toward that objective. If possible, indicate what principle is being used for the financing dimension of the EI, PPP, UPP or Budget Support.
- *Equity* – If the EI has an equity objective, this needs to be discussed here. In some cases, this objective may be simply to prevent the EI having a negative

equity impact while it pursues other objectives. In that case, the measures to be introduced for this purpose should be presented here. As with the other objectives, plans for monitoring progress in this dimension should be presented.

3.5 Implementation Plan

Table 3: ***Log Frame for Implementation***

Activity	Actions/Inputs	Outputs	Critical Assumptions (*)
Consultations	**Meetings:** **Discussions:**	**Reports** **Publicity Documents**	
Administrative/ Legal Steps	**Legal Review** **Administrative Review**	**Legal approval** **Administrative Plan**	
Design of EI	**Modelling of links to objectives** **Selection of key parameters** **How to deal with special cases**	**Results of applying the model or alternative method of selection** **Report giving full design parameters**	
Review	**Plan for reviewing and monitoring**	**Report on review/ monitoring plan**	

(*) from outputs to objectives

- *Consultation* – Indicate with whom consultations are planned, what materials will be presented to the stakeholders and what allowance has been made for changes in the EI in the light of comments received. What difficulties are anticipated and what steps will be taken to address them?

- *Administrative and Legal Arrangements* – Give an outline of what the administrative plan will contain. Typically it should identify the agencies responsible for implementation, and how they will work together. Any arrangement to provide technical assistance to the agencies should be elaborated here.

- *Design of the EI* – This section should contain:
  - How values of main parameters (e.g. charge rates) will be determined? Discussion of models to be used should be provided here.
  - Criteria for selection of groups to which they apply and who will be exempted.
  - How revenues will be shared?
  - Arrangements for revision of parameters or design more generally.
  - Plans for extension (if any).

- *Review Arrangements* – Provide details on how the project will be reviewed during and after the implementation period is completed.

3.6 Budget

Give the expected costs, including the minimal costs of the preparation, implementation and enforcement of the EI.6.

Conclusions

These guidelines have been prepared based on a review of the SAP MED programme and experience with the initial EIs, as well as wider experience of the author in the design and implementation of EIs. They were revised and discussed at the Meeting on Implementation and Evaluation of EIs and preparation of NAPs, held in Split, in March 2003. These

guidelines are to be used for the preparation of the NAPs for economic instruments to address marine pollution from land-based activities.

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ANNEX I

Classification and definitions of economic instruments

One definition of the term "economic instruments" is: *"Any instrument that aims to induce a change in behavior of economic agents by internalizing environmental or depletion cost through a change in the incentive structure that these agents face (rather than mandating a standard or a technology) qualifies as an economic instrument."*

Currently, diverse definitions of various types of economic instruments for environmental policy are in use. The most widely used classification of economic instruments for pollution control and natural resources management is the one developed by OECD. This classification is also used for our survey. The following list provides for the OECD typology:

- **Emission charges/taxes*:*** Direct payments based on measurements or estimates of the quantity and quality of a pollutant. Emission charges can cover only one pollutant or include a wide range of pollutants. In some countries, emission charges are used in combination with non-compliance charges (see below).
- **User charges/taxes*:*** Payments for the cost of collective services. They are primarily used as a financing device by local authorities, e.g. for the collection and treatment of solid waste and sewage water. In the case of natural resources management, user fees are payment for the use of a natural resource (e.g., minerals, park, fishing or hunting).
- **Product charges/taxes*:*** Payments applied to products that create pollution when they are manufactured, consumed or disposed of (e.g., fertilizers, pesticides, packaging material, batteries, etc.). Product charges are usually intended to modify the relative prices of the products and/or to finance collection and treatment systems.
- **Non-compliance fees*:*** Payments imposed on polluters who do not comply with environmental or natural resources management requirements and regulations. They can be proportional to selected variables, such as damage due to non-compliance or profits linked with non-compliance. Non-compliance fees are sometimes also referred to as "fines" or "penalties".
- **Deposit-refund systems*:*** Payment made when purchasing a product (e.g. glass or plastic bottles). The payment (deposit) is fully or partially reimbursed when the product is returned to the dealer or a specialized treatment facility.
- **Marketable (tradable, transferable) permits, rights or quotas*, also referred to as "*emissions trading*":*** Instrument based on the policy principle that any increase in emission or in use of natural resources must be offset by a decrease of an equivalent, and sometimes greater, quantity of emissions. For example, when a statutory ceiling on pollution levels is fixed for a given area, a polluting firm can set up a new facility or expand its activities only if it does not increase the total pollution load. The firm must therefore buy "rights" or permits to pollute from other firms located in the same control area which are then required to abate their emissions by an amount equal to the additional pollution emitted by the new activity.
- Performance bonds: To guarantee compliance with environmental or natural resources requirements, polluters or users must pay a deposit in form of a "bond." The bond is refunded when compliance is achieved.
- Liability payments: Payments made under civil law to compensate for the damage caused by a polluting activity. Such payments can be made to "victims" (from chronic or accidental pollution) or the government. They can operate in the context of specific liability rules and compensation schemes, or compensation funds financed by contributions of potential polluters (e.g. funds for oil spills).

- Subsidies: All forms of public financial assistance to polluters or users of natural resources, e.g. grants (financial contribution which does not have to be paid back), soft loans (interest rate below standard commercial rates), tax allowances (tax rate below standard rate, e.g., reduced VAT rates), accelerated depreciation, etc.

A number of additional distinctions on environmental charges and taxes should be considered. Environmental charges and taxes are generating revenues and a fundamental distinction is whether revenues are earmarked specifically for environmental spending or contribute to general state or municipal budgets. For this survey, the term “charge” is applied if all or major parts of the revenue from the instrument is earmarked for environmental expenditure. For example, the term “charge” is used if revenues are collected by environmental funds, water funds or public enterprises providing municipal services such as wastewater treatment and solid waste management. If the revenue is not earmarked for environmental expenditure, the term “tax” is used. This simple approach is largely compatible with the current OECD definitions of the terms “charges/fees” and “taxes.”

Given the complexities of environmental problems and the impact of environmental policies on social and economic activities, specific environmental problems are usually addressed by employing a “policy mix” consisting of various command and control instruments (standards, permits, prescribed technology, fixed sanctions in case of non-compliance etc.), economic instruments and persuasive instruments (such as voluntary agreements, informational and educational measures etc.). It is important to stress, therefore, that economic instruments usually are not the ideal and only solution per definition. In turn, the effectiveness and efficiency of economic instruments always depends also on the specific accompanying overall policy mix.

Examples of frequently used economic instruments in environmental protection

A. Water
TAXES/CHARGES
- **water extraction charges**
  - surface and groundwater extraction charge;
  - tax on mineral water extraction;
- **water user charges;**
  - charge for use of irrigation water;
  - user fees for reservoirs and dams
- **water pollution charges;**
  - surface water pollution charge;
  - water protection charge;
  - water pollution control charge.

NON-COMPLIANCE FEES
- water pollution non-compliance fee.

LIABILITY PAYMENTS
- damage wastewater

SUBSIDIES (grants, soft loans, tax allowances, accelerated depreciation, other subsidies)
- to support improvement of water quality;

MARKET CREATION
- tradable permits for water quality management
- tradable water pollution permits
- tradable water use rights

B. Sewage and wastewater

TAXES/CHARGES
- **sewage user charges;**
- wastewater user charge;
- wastewater effluent charge;
- sewage treatment charge.

NON-COMPLIANCE FEES
- sewage non-compliance fee.

SUBSIDIES (grants, soft loans, tax allowances, accelerated depreciation, other subsidies)
- to support municipal sewerage and wastewater treatment.

C. Waste disposal & management
TAXES/CHARGES
- municipal waste user charges waste collection & disposal;
- solid waste charges;
- hazardous waste charges;
- industrial waste charges;
- landfill tax or charge.

NON-COMPLIANCE FEES & LIABILITY PAYMENTS
- waste non-compliance fee;
- liability for clean-up costs of hazardous waste;
- sea dumping of oil from ships.

SUBSIDIES (grants, soft loans, tax allowances, accelerated depreciation, other subsidies)
- support of the recycling and reuse;
- to promote the clean products;
- consumer product waste management;
- preferential procurement of recycled products;
- car buyback schemes;
- for investment in waste and wastewater treatment plants.

DEPOSIT REFUND SCHEMES
- beverage containers (PET, glass, metals)
- fluorescent light bulbs;
- vehicle tires;
- batteries/accumulators;
- lead-acid batteries;
- lubricants;
- televisions;
- car hulks;
- motor vehicles;
- containers of pesticides.

PERFORMANCE AND ENVIRONMENTAL BONDS
- oil spill bonds;
- guarantee bonds for hazardous waste.

Product charges
- disposable beverage & food containers
- (PET, glass, metals);

- substances/products
- damaging ozone layer (CFC and halons);
- batteries/accumulators;
- refrigerators and refrigerants;
- plastic carrier bags;
- washing agents;
- automotive air conditioners;
- paints and varnish; tires;
- paper;
- dyes;
- light bulbs;
- building materials;
- disposable razors,
- cameras;
- televisions;
- computer monitors;
- car hulks;
- lubricant oil charge;
- oil pollution charge;
- solvents.

LABELING OF ENVIRONMENTALLY FRIENDLY PRODUCTS
- based on reduction of toxic chemical pollution, protection of water resources, minimisation of impacts on fish and wildlife and their habitats, efficient use of natural resources, protection of the ozone layer, and prevention of global warming.

HAZARD LABELS
- ozone depleting substances, toxics, PCBs, asbestos, cleaning agents, auto and machine maintenance products, shoe polish, aerosols, butane lighters,...

D. Air
TAXES/CHARGES
- air pollution charge

NON-COMPLIANCE FEES
- air emission non-compliance fee;
- noise pollution non-compliance fee.

LIABILITY PAYMENTS
- air pollution liability payments.

MARKET CREATION
- hazardous air pollutants;
- wood stove and fireplace permit trading;
- grass burning permit trading;
- ozone depleting substances trading;
- other air emissions trading.

E. Agriculture
TAXES/CHARGES
- charges on fertilisers;charges on pesticides;
- environmental protection charges;
- charges for the use of public lands for grazing in agriculture;
- hunting and fishing license fees;
- charges for hunting and fishing of threatened species;
- charge for sea water fishing;

- charges on forestry activities;
- tree cutting charges.

SUBSIDIES (grants, soft loans, tax allowances, accelerated depreciation, other subsidies)
- to promote organic agriculture;
- for fishery;
- for forest planting;
- for improvement of forest health, productivity and biodiversity;
- for clean processing of the waste of the fishing industry.

ENVIRONMENTALLY HARMFUL SUBSIDIES:
- agricultural subsidies.

MARKET CREATION
- fishing rights;
- tradable fisheries quotas;
- international trading quotas.

F. Extraction Industry

TAXES/CHARGES
- sand extraction charge
- gravel extraction charge;
- mining, mineral resources and raw materials extraction charges;
- peat extraction charge
- stone extraction charge
- crude oil
- other resources charges.

SUBSIDIES

ENVIRONMENTALLY HARMFUL SUBSIDIES:
- for timber, minerals and water extraction.

MARKET CREATION
- tradable permits for land management;
- land protection trading;
- tradable development rights;
- mining rights;
- other permits trading.

PERFORMANCE BONDS, ENVIRONMENTAL BONDS
- mine sites performance bonds;
- oil production bonds.

G. Industry

TAXES/CHARGES
- emission and effluent charges.

NON-COMPLIANCE FEES
- emission non-compliance fee;
- noise pollution non-compliance fee.

LIABILITY PAYMENTS
- pollution liability payments.

SUBSIDIES (grants, soft loans, tax allowances, accelerated depreciation, other subsidies)
- support to pollution control in industry;

- support to pollution control in small and medium-sized enterprises;
- to development of environmentally friendly technologies;
- support to industry[2]

MARKET CREATION
- CFC production allowance trading;
- ozone depleting substances trading;
- other emissions trading.

H. Energy
TAXES/CHARGES
- carbon/energy tax;
- SO2 emissions tax;
- NOx emissions tax.

SUBSIDIES (grants, soft loans, tax allowances, accelerated depreciation, other subsidies)
- to renewable and clean production of energy.

ENVIRONMENTALLY HARMFUL SUBSIDIES:
- subsidies for coal producers;
- nuclear power;
- other fossil fuels.

MARKET CREATION
- CO2, SO2, NOx, emissions trading rights;
- acid rain allowances trading.

NON-COMPLIANCE FEES & LIABILITY PAYMENTS
- air pollution exceeding permitted emission level;
- liability for damage to natural resources resulting from oil-spills.

ENERGY-EFFICIENCY LABELING
energy efficiency labelling of cars, refrigerators, freezers, water heaters, washing machines, dishwashers, furnaces, air conditioners, heat pumps, computers, lighting, fluorescent lamps,...

SECTOR: Motor fuels
TAXES/CHARGES
- leaded/unleaded gasoline (quality differential);
- diesel (quality differential);
- product charge on transport fuels;
- carbon/energy taxation;
- sulphur tax;
- other excise taxes;
- other emissions taxes.

SUBSIDIES (grants, soft loans, tax allowances, accelerated depreciation, other subsidies)
- to promote the use of lead-free gasoline

I. Vehicle and traffic related taxation
TAXES/CHARGES
- sales/excise/registration tax differential (cars);
- road/registration tax differential (cars);
- increased import duty for used cars or without catalyser;

[2] often negative to environment

- congestion pricing;
- road user fees;
- noise pollution tax;

SUBSIDIES (grants, soft loans, tax allowances, accelerated depreciation, other subsidies)
- to promote the public transport use;
- grants for low emission vehicles (personal and business cars, trucks).

J. Nature protection and biodiversity

SUBSIDIES (grants, soft loans, tax allowances, accelerated depreciation, other subsidies)

MARKET CREATION

- tradable permits for land management;
- land protection trading;
- tradable development rights;

NON-COMPLIANCE FEES / LIABILITY PAYMENTS
- natural resource liability;
- nature protection non-compliance fees.

PERFORMANCE BONDS, ENVIRONMENTAL BONDS
- reclamation and environmental performance bonds.

OTHER POSITIVE INCENTIVES

- public land purchase;
- wetland reserves;
- wildlife habitat incentives programme;
- bilateral and multilateral biodiversity transfers;
- species enhancement schemes;
- incentives for customary cultivation;
- agricultural land retirement schemes
- value added taxes
  excise taxes.