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parallel to the process of institutional strengthening and policy reform, the SEE countries should develop a regional investment strategy and establish national environmental funds and/or other mechanisms enabling the management of earmarked public money for environmental investment projects.

The list of beneficiary countries for REReP projects includes Croatia, Serbia and Montenegro, the Former Yugoslav Republic of Macedonia, Bosnia and Herzegovina and Albania. Bulgaria and Romania should also benefit from the networking activities.

The SEE countries have already indicated priority sectors to be addressed by the Priority Environmental Investment Programme: air protection, bio-diversity, water protection and waste management but many of them did not have national and local investment strategies which address key environmental investments. Many of the existing programming and strategic documents, however, were drafted before and their validity is not verified in the current situation. In the recent past, some international environmental and development agencies (EU DG Environment, UNEP, World Bank, UNDP, etc.) sent expert teams to the SEE region to evaluate the state of environment and to recommend technical and investment assistance to be provided by the international donor community.

The paper is focused on the methodology and mechanisms for the prioritisation of the environmental investments such as:

- Environmental infrastructure projects in the air, water and waste sector,
- Environmental priorities of SEE countries,
- Environmental priorities of the SEE as a region,
- Requirements of the donor community.

THE MAIN OBJECTIVES

The overall aim of the paper is to stress the need for development and implementation of

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Priority Environmental Investment Programme (PEIP) and assist Republic of Serbia in its further development and implementation i.e. in identifying environmental infrastructure investment projects that would reflect the environmental priorities of the region. Furthermore, the paper is designed to assist in the development of strong and viable institutions or mechanisms capable of effective implementation of priority environmental infrastructure investments foreseen under implementation.

The Specific objectives of the paper are as follows:

- To develop national and SEE priority environmental investment programme (comprising the strategic document and the priority project list).
- To provide the guidance for assistance in implementation of the aforementioned SEE regional priority environmental investment programme through co-operation with the donor community
- To support capacity-building in environmental investment planning
- To support the regional networking and mutual co-operation of environmental and financial institutions and experts in SEE

ANALYTICAL FRAMEWORK AND DEFINITIONS OF PEIP

There are different types of environmental projects. They can depend on differences in (i) the environmental problems they intend to address; (ii) type of organisation/agent initiating, deciding and implementing the projects; (iii) applied financing mechanisms.

For the purposes of the PEIP the following categories could be defined:

- Environmental infrastructure development projects
  1. Water distribution and wastewater collection and treatment systems;
  2. Solid waste management facilities;
  3. Hazardous waste management facilities.
- Pollution abatement projects (in production mostly)
  1. End of pipe abatement
  2. Cleaner technologies
- Clean up of past pollution
- Environmental monitoring projects
- Nature conservation projects

Magnitude and structure of environmental investment expenditure is the indicator for the implementation of environmental investment projects. Therefore, the objective of the project can be formulated in the process of recommendation of institutional and policy changes, which should result in an increased and more efficient environmental investment expenditure. Framework for analysing implementation of the environmental investments relates to the determinants of the size and efficiency of environmental investment spending.

The analytical framework is derived from economic theory. Accordingly, the interaction of demand for and supply of environmental investment resources determine the size and structure of the environmental investment spending. Consequently, it is needed to analyse the institutional and policy factors that are important either on demand or for the supply side or to facilitate demand and supply interactions. Suggested changes, however need to be evaluated against the joint work of demand and supply side. Focusing on supply of finance side only might result in suggesting changes on that side while the bottleneck in increasing investment expenditure is on the demand side (for e.g. lack of proper enforcement).

Demand side: The Demand for environmental investment resources represents the intention for implementing environmental investment projects.

The need for financing environmental protection is driven by national environmental objectives. In the best case, economic developments and pubic awareness play an important role in determining priority environmental problems and related objectives. Both environmental objectives and different policy instruments applied to meet them determine private and public environmental investments and shape the demand for domestic and foreign financial resources. Policy instruments as they are translated into legal requirements together with the strength of their enforcement determine the financial rate of return for the planned projects.

Organisations/agents that can initiate environmental projects (offer environmental projects for financing):

- Enterprises;
- Municipalities;
- Budgetary organisations;
- Central and regional governments;
- Households

Supply side: The availability or supply of capital is determined by the pace of economic development and, to a certain degree, influenced by the availability of international financial instruments. The supply of financial means, and the associated conditions, is governed by economic development; the strategies and policies of the financial organisations.

Organisations/agents on the supply side are the following:

- Commercial banking sector;
- Central and regional governments;
- Public organisations, such as environmental funds;
- International financing institutes;
- Foreign governments and international organisations.

Financing mechanisms operated by the above organisations are the following:

- Commercial loans;
- Equity investments, concessions;
- IFI loans;
- International subsidies, such as soft loans, grants, etc.
- Direct government budgetary financing;
- Government budgetary subsidies;
- Extra-budgetary subsidies, such as soft loans, grants, loan guarantee etc.

Interaction of the demand and supply: The following figure describes this analytical framework.

THE POSSIBLE PEIP WORK PLAN

The Scope of Work in developing the Priority Environmental Investment Programme (PEIP) must include the following tasks:

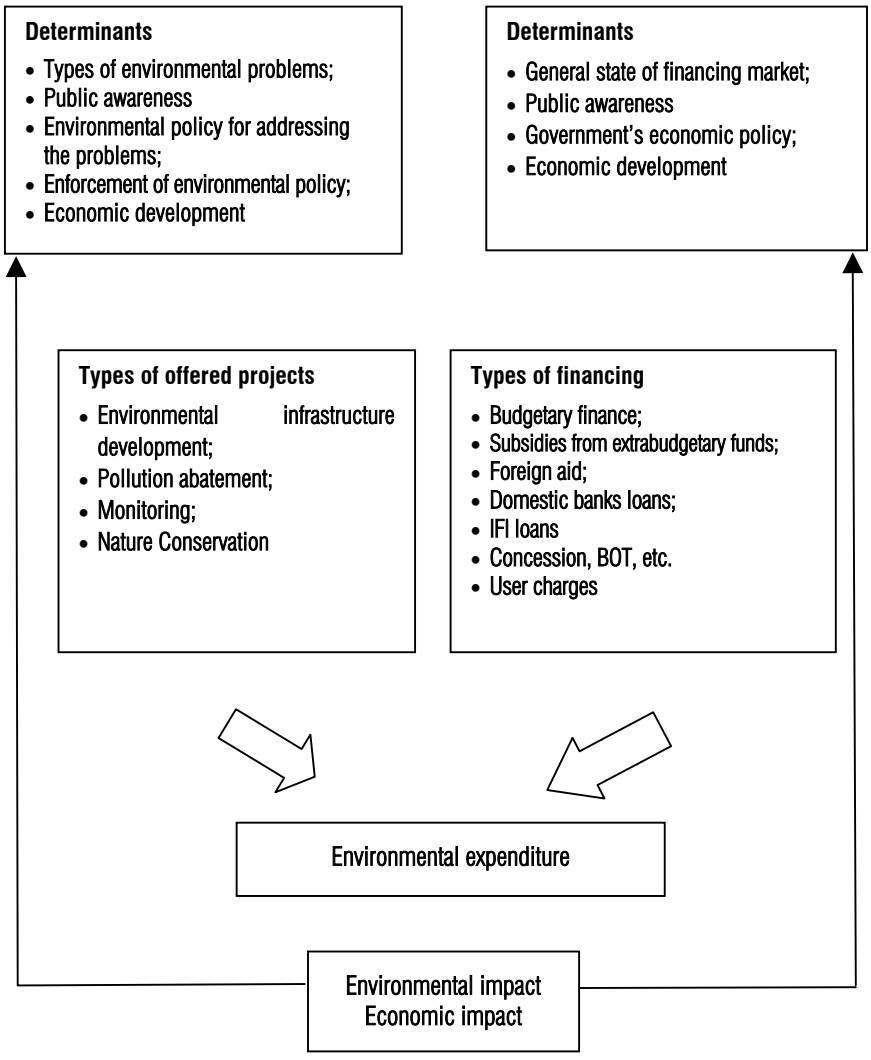
1. To develop Country Report on the State of the Environment.
2. To develop a Regional Set of Priorities.
3. To identify projects at the national level based upon regional priorities.
4. To identify programmes using sector and geographical key.
5. To assess investment needs identified by SEE countries; conduct gap analysis.
6. To compile regional strategy, priority programmes and project list.

The country budget, donor community and international development and financial agencies are the intended audience for the selected projects, with particular focus on the European Commission. Therefore, it is assumed that

project development and implementation shall be consistent to standards and approaches relevant for EU project cycle management including the following aspects:

the projects into groups as the focus of investors has been moved from single investment projects into packages of projects serving one objective and proving they represent the cost effective way to do it.

Figure 1. - Determinants of environmental expenditure



The Priority Environmental Investment Programme (The PEIP) will consist of several sector and/or geographically defined investment sub-programmes.

In other words the projects identified would be organized, either by the sector they address (such as waste management…), or by the geographic region (hot spot) they influence, into the investment sub-programmes. The main reason for such approach is to make the PEIP readable and attractive for potential investors and to enable them to easily package

When identifying the investment sub-programmes, one must stick to the following principles:

- Each PEIP objective will constitute one sub-programme
- Each sub-programme will list the types of priority actions required to fulfil its objective (Furthermore, the investment projects within the sub-programmes will be organized by priority actions they belong to. For example, if proposed sub programme is defined by the objective to reduce air pollution from the fossil fuel based on energy production, one may cluster the projects by the following types of priority actions (if defined) – installing scrubbers, changing fuel, clean technology such as fluidised bed combustion. For each type of actions one will list the relevant projects).
- For each type of action, priority projects will be listed (Estimation to what extent the identified investment projects contribute to the fulfilment of the given objective is needed and subsequently only the most effective projects should be included).

a) The PEIP and its sub-programmes would be presented in the logical framework matrix format (Log Frame) and the process of its creation will be based too.

- Goals structured in a tree.
- Goals/measures described using indicators of quality, quantity and time.
- All-important assumptions/risks are explicitly stated.
- Significant stakeholders involvement if possible.
- Balance between expert analysis and stakeholders analysis.

b) The PEIP programmes, types of actions and projects will be consistent with key EU requirements[1] as far as possible, but above all:

- Air:
  - Air quality framework directive 96/62 EC
  - Daughter directive 1999/30 EC on PM, SO2, NO_X and Lead
  - Daughter directive 2000/69 EC on CO and Benzene
  - Proposal for the Daughter directive on Ozone COMM 1999/125-2 final
  - National emission ceilings directive 2001/81 EC
  - Large combustion plants directive 2001/80 EC
- Water:
  - Water framework directive 2000/60 EC
  - Drinking water directive 98/83 EC
  - Urban waste water directive 91/271 EEC
- Waste
  - Waste framework directive 75/442 EEC
  - Landfill directive 1999/31 EC
  - Waste incineration directive 2000/76 EC

[1] For more information on the directives, see REC training materials on heavy investment directives at http://www.rec.org/REC/Programs/ocallnitiatives/Training/TrainingMaterials.html

c) The PEIP general priorities will be based upon the Environmental Action Programme for Central and Eastern Europe, namely:

- Priority given to hot spots (geographically defined areas with one or several environmental problems).
- Priority given to the protection of the human health, followed by protection of nature/biodiversity.
- Involving all relevant local experience.

d) Combination of a top-down and bottom-up approach:

- The top-down approach, driven by logic, goes from general goals through generic types of actions down to the identification of projects to meet those goals.
- The bottom-up approach, driven by real-life experience, in contrast starts from projects supported by stakeholders.

Finally, the first task of developing a Priority Environmental Investment Programme (The PEIP) is to identify and describe the environmental problems through a review of existing strategic and operational documents including priority investment lists using the schematic description of OECD "Pressure-State-Response" Model of indicators[1] (see the graph bellow).

It is expected that, in order to maintain consistency with other efforts and to enlist full support of Member Countries, the Priority Environmental Investment Programme will interact with an official from each Member Country's Ministry of Environment (or equivalent) and some of the decision makers are members of the Network of Environmental and Finance Specialists.

The PEIP will provide country reports, which must be in a form to be used as an input into the strategic portion of a regional PEIP. Based on findings from the Countries PEIP assistance will be expected in developing the strategic part of the regional report for the SEE region, the main purpose of which will be to identify and justify selection of regional priority areas.

The first step of this task has to be to compare and analyse national priorities and to formulate a set of regional priorities by provision of comments and suggestions.

[1] see http://www.oecd.org/EN/about/0,,EN-about-567-nodirectorate-no-no-no-8,00.html – OECD work on environmental indicators

Project identification at the country level based on regional priorities

Primarily, the assistance is needed in identifying generic types of projects as well as project screening criteria. Based on existing inputs the investment project questionnaires will be adjusted to the PEIP needs. For that purpose detailed questionnaires and project identification guidelines must be developed. The PEIP methodology will respect the project logic utilizing the Logical Framework Approach. The final approval of the PEIP will be obtained by the central government. Based on identified data on project financing needs and available project funding, it will be conducted a preliminary estimation of financial gap and its distribution over time and sectors on a country level and comments and suggestions that shall be taken into consideration during identification of priority environmental infrastructure investment programmes.

Programmes identification using sector and geographical key

Based on identified country priorities and investment projects, programmes (goals) and priority actions within the programmes will be identified. Furthermore, the prioritisation of projects according to their physical impact on the environment with special attention to hot spots will be undertaken. The programme will be justified and compiled into a log frame format.

Development of a Regional PEIP

Based on the identified programmes consisting of strategic considerations, planning mechanism, project screening criteria and preliminary gap analysis, Central Government has to make a proposal for developing/revising of a regional PEIP. It is expected that the SCG will assist international community and provide comments and suggestions on particular issues related to development of regional PEIP.

PEIP results

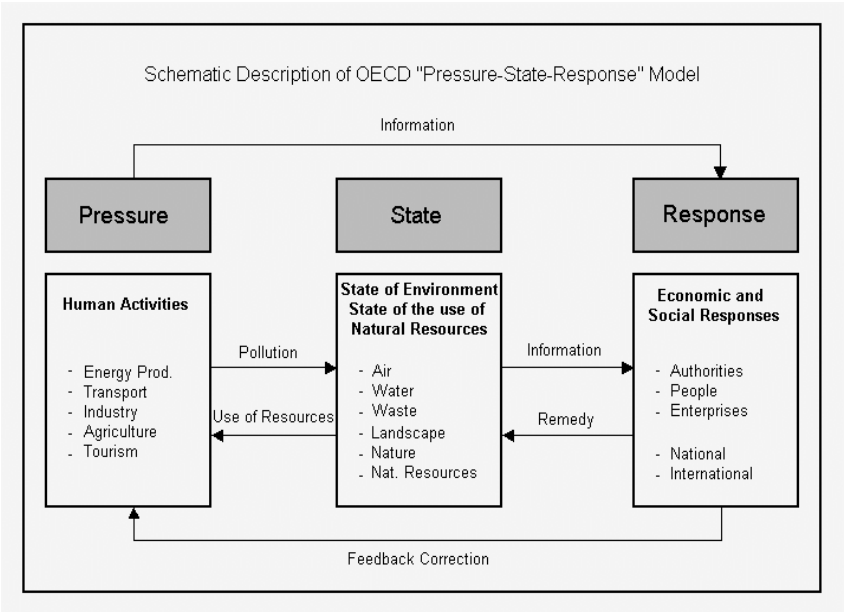
In the process of completing the PEIP on the Country level a written Documents described below will be prepared. The Documents shall be consistent with the methodological guidelines. The following Documents are expected under PEIP completion:

Reports

- Country Report on the Environment – Final
- Regional PEIP on Priorities and Criteria
- Instructions for PEIP Identification (methodology guideline)
- PEIP Database
- Final PEIP

ADMINISTRATIVE LEGAL PROTECTION AND FINANCING MECHANISMS

Environmental protection requires well-organized decision-making process. It requires that all environmental aspects are integrated in policy, planning and in the levels of environmental management, by the implementation of the



legal system which includes a clear, transparent and efficient structure. That includes an efficient administrative, legal and financial system strongly supported by the informatics in the management decision-making process.

The main characteristic of the state of previous organization of administrative-legal environmental protection is the extensive and overlapping spheres of activity and competence, both between Federal authorities, and between Federal and Republic bodies, absence of a central body for the coordination of all activities in this field.

Aiming at more efficient and more rational implementation of the commitments in this field pursuant to the conditions which are becoming the general principles (integration of environmental protection and sustainable development), the first step in this direction is the transformation of the wide range of the State institutions at all levels and their networking with a clear division of competences and spheres of activity, control of mechanisms for getting the funds for the implementation of environmental protection.

Despite the visible results in some sectors the problem of double management and overlapping of competence in the field of protection of water, soil, forest, leads to non-uniform, incomplete and inadequate approach to their protection. The practice indicates the growth of activities and competencies in the field of environmental protection. This requires an independent decision-making i.e. equal consideration of individual measures and regulations in the context of the development. For the environmental institutions to be effective, it is necessary to have sufficient staff and sufficient financial resources. Capacity building and training is also significant, i.e. the study of the latest methods of environmental management - particularly inter-sectoral analysis of ecology issues, acquisition and analysis of data (technical, economic, etc.) and the use of these data in the development of management and investment policies.

To improve the integration of environmental protection and development, the competent administrative bodies - institutions must be responsible that the proposed policy, programs and investment decisions are not contrary to sustainable development. The parameters of planning and implementation of the development must include the parameters for the assessment of the environmental effects resulting from that development.

The essentially changed role of the State in the economy, as the main actor in the environment, introduces new elements in the process of decision-making on economic development, harmonized with environmental conditions and values. The reform of the economic system also means the reform of administrative-legal system in general, and also in the field of environment. Further enhancement of the Legislation is in progress. The legislative system in the field of environmental protection must include:

- Harmonization of the Legislation with international norms and standards;
- Training of the administrative staff at all levels for efficient environmental management;
- Resolving of the issues of competence to avoid overlapping and conflicts of interests;
- Enhancement of scientific infrastructure parallel with administrative infrastructure to ensure environmental management based on scientific knowledge.

It also brings up the need of raising the public enforcement in the field of identifying environmental problems and enforcement of needed protection.

Public participation

The right to get information on the state of the environment is a Constitutional right for all citizens of Republic of Serbia.

By introducing the directives of Aarhus Convention in the domestic legal system on Access to Information and public participation in decision-making and availability of legal protection in the issues of environmental protection, created the conditions for stronger public participation in the process of environmental protection. The State bodies and institutions dealing with environmental protection are forced to provide to the stakeholders to acquire the information. Citizens can participate in decision-making on the issues of environmental protection, in the administrative procedures for decision-making, or in the judicial procedure to protect their rights.

Non-governmental organizations

Till the late 1990s, several tenths of non-governmental environmental organizations were registered. Although this is a relatively high number of organizations, if the structure of their activities is compared with the standards and activities in west countries, it can be concluded that only a small share of these organizations is active and that they are still in the initial phase of development. There are many local non-governmental organizations, which are directed to environmental protection in the local region. Although their actions have primarily a local character, their role in environmental protection should not be underestimated. Taking into account that environmental protection issues in Republic of Serbia considerably increased over the past decade and that many of them exceeded the national frame it is a priority to establish environmental NGO-s on new foundations.

Education

It has been generally assessed that education has not been appropriately organized, and there is a notable lack of planned activities on rising awareness on the need of environmental protection. Education of the professional staff for integral environmental protection is unsatisfactory. However, on the other hand, it must be emphasized that environmental protection was included in preschool, primary and secondary education, and in four-year university study. The courses of environment protection are included in the curricula of many universities, although the approaches at some faculties differ. These differences were conditioned not only by the structure and nature of the faculty, but also by the subjective attitudes of the responsible.

Information for decision makers

The coordination of the decision-making processes regarding the environment and sustainable development is subject to general rules of administrative bodies and other involved subjects. Information management in this field, at all levels, is coordinated by the environmental protection bodies, data acquisition and information is performed by the bodies responsible for statistics, hydro-meteorology, health,

water resources management, agriculture, forestry, industry, etc. Still, a clear system of coordination and responsibility for information in the field of environment and decision-making process does not exist. The processes of capacity building in this field are in progress.

This topic is not regulated. There are only general regulations, covering the availability of information on the environment. The reform of legislation is pending.

The state of the environment was monitored over the past decade, but it was not systematic. However it is necessary to study the multiannual trends in this field. The harmonized methods of data collection are still lacking and on these basis the precise analysis of individual segments leading to adequate decisions could be made. Some of the major problems are: inadequate national information system for environmental protection, inadequate professional and laboratory capacities for monitoring, and lack of horizontal and vertical dissemination of data and information.

It is difficult to overcome the above problems. Some information systems starts to develop: system of statistical research is quite anachronous; hydro-meteorological monitoring of the quality of surface watercourses, coastal sea and drinking water, as well as air quality; monitoring of radioactivity in the environment is much better, etc.

The present activities at the national level are poorly continued on the design and establishment of information systems for environment. Activities are also directed towards the project of the Establishment of National Indicators of Sustainable Development, and introduction of Geographic Information System for environmental management. It should be stressed that Government intends to ratify UN ECE Aarhus Convention in 2002.

Environmental financing mechanisms

Economic instruments and environmental financing mechanisms in Serbia are still underdeveloped. The entire system is based on the principles, which are not pursuant to the principles of market economy. The economic mechanisms of environmental protection include: compensations for the tenure of natural resources, taxes, insurance, incentive earnings, voluntary contributions, credits and other economic forms of incentives for environmental protection or for restricting environment degradation. Instead of the direct allotment of funds on the special account for the purposes of environmental protection, the funds are transferred to the budget of the Republic of Serbia and then further distributed to other purposes. This method is contrary to the one in the developed countries, where the resources intended for environmental protection are transferred directly to the special, independent Funds.

Significant funds for resolving environmental problems were provided by the Donors Conference held in Brussels on June 30th, 2001, when about $95 million was planned for realization till 2004, of which $11.2 million is intended for the remediation of the four "hot spots".

By the law of corporate taxes on profit in Serbia there are some stimulative incentives for depreciation of real estates which are in function of protection of air, water and soil pollution, decreasing of noise and implemented energy saving equipment. Almost identical solution is specified by the law on taxes on citizen's earnings as well as on cadastral earnings of agricultural producers for investing in the equipment for environmental protection.

By the law on public earnings and expenditures of Republic of Serbia the special payments are introduced for water use, for usage of forests, soil, natural medical resources and mine exploitation.

Having that in mind, it is necessary to intensify the role and the significance of economic instruments in the system of environmental protection. The policy of environmental protection should be focused primarily on preventive actions, applying the "polluter pays principle".

ENVIRONMENTAL POLICY RESPONSES

Building capacities to implement preventive and long-term environmental protection approach, polluters–pay-principle and fully implemented international conventions and other standards in relevant sectors, is the process included in Reform Agenda of Serbia. In regard to that, main challenges for a near future include the rehabilitation of the identified environmental "hot spots" and reverse natural resources destruction, improvement of environmental information production and dissemination, as well as air and water quality improvement, municipal water supply and sewerage improvement, and development of the efficient waste management strategy for industrial and municipal solid waste and waste water. All of the listed elements ensure environmentally sound development in industry, energy and agriculture sectors.

The main challenges for the future

Identification and adoption of the national environmental priorities (PEIP) at the same time defined development challenges within the environmental sector:

a) Capacity building in environmental monitoring and development, including trainings, technical assistance, institutional strengthening, institutional building including building up environmental multimedia coverage by new ministry, approximation and adoption of new legal and economic instruments, etc.

b) Monitoring and accidental response environmental system management & technical assistance, including Environmental mobile units.

c) Environmental hot spots remediation and technology development as the condition of agriculture, economic & in general sustainable development in Danube basin-, Carpathian-, Balkan-, SEE-, CEE - region, including selected case studies, ecological zoning of Serbia and management system.

d) Waste, hazardous waste & wastewater management and technical assistance, including selected case studies selected municipal landfills, selected medical waste treatment facilities, selected PCBs and other hazardous wastes treatment facilities, selected waste water treatment plants and sludge disposal, and management system.

e) Protected areas, biodiversity, nature and environmental protection, including selected case studies and management system.

f) Environmental Education

In consideration of main development challenges, main challenges would be:

- Building up and reinforcing of institutions (existing or new ones) having strong competencies and power in all fields of the environmental system.

- The implementation of National Environmental Action Plan (as well as other strategic documents for natural resources and protected areas). The needs for updating environmental policies and strategies, as well as preparation of realistic plans are equally recognized by the government, experts- and NGO- stakeholders.
- Improvement of regional co-operation and environmental legal reform, taking into account the EU accession and the related economic reform, is recognized as priority, particularly concerning integration of environment in the economic transition.
- Further involving Serbia to international bodies/institutions, cooperation with GEF as operational focal point for FRY, for project such as assessment on influence on climate changes, biodiversity and etc, further cooperation with REC and REC Country Office Belgrade, in REReP and other projects, further cooperation with UNEP, UNDP and other UN organizations, further cooperation with OSCE in environmental security issues, participation on UN, UNEP, UN ECE, OECD and other relevant meetings.
- Government of Serbia has stressed the importance of the integral environmental information system together with public awareness, civil society building, awareness of decision-makers and environmental education.
- Preparation of Local Environmental Action Plans has come up strongly as one of the major priorities. Gradual implementation with clear steps and guidelines are desired.

Relation with other sectors

It is essential to be noted that other sectors, such as:

- COAL MINNING RECONSTRUCTION (such as ash disposal problems, natural sand and stone exploitation, etc)
- OIL AND GAS (used oils, efficiency, pollution limits)
- ENERGY (possibilities to use alternative fuels like waste; environmental friendly technologies and production)
- TRAFFIC (the concrete example will be given – clean up bridges in Novi Sad, conducting by traffic goals, are performing without EIA procedure by national legislation)
- WATER SUPPLY AND SANITATION (water is natural resource)
- PRIVATISATION (without EIA the cost could be very different than the real one – the costs of facility have to include the costs of approximation to environmental standards)

should be conducted by national law according to EIA (Environmental Impact Assessment Procedure), and as the condition for the EU accession procedure.

In addition, sustainable use of natural resources, renewable and alternative environmental friendly energies, environmental friendly technologies and production are conditions for sustainable development of Serbia, and commitment to that process is very crucial to a variety of financial assistances. High level of environmental awareness amongst decision-makers and high priority in government, with developed realistic step-by-step procedure towards sustainable development, should be a part of each sector policy.

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