

News and updates

Summary of the Project

Background of the project. The European Commission has contracted the Umweltbundesamt GmbH (Federal Environment Agency Ltd), Vienna, Austria, as the leading partner; in consortium with CEEN Economic Project & Policy Consulting GmbH, Vienna, Austria; Environmental Management and Law Association of Hungary, The Institute for European Environmental Policy, UK; and in sub-contractual relation to the TMC Asser Institute, The Hague, for the development of environmental legislation for Bosnia and Herzegovina. This legislation should pave the way for approximation to European Community Law.

The following specific legislation is being developed under this contract for the Republika Srpska and for the Federation of Bosnia and Herzegovina (the Entities):

- Law on Water Protection
- Law on Waste
- Law on Nature Protection
- Law on Air Protection
- Environmental Framework Law, including a law providing an integrated framework for environmental licensing, includ-

ing reference to supporting procedures such as environmental impact assessment, based upon the concept of integrated pollution prevention and control.

Drafts of these laws are prepared by local and international experts. At workshops comments are collected from a range of stakeholders. The State of Bosnia and Herzegovina wishes in the longer term to align its legislation with European Community Law. However, a significant institutional change will have to take place so that a rigorous transposition of European Community Law can be realised. Therefore, although the basic aim of this project is to produce legislation that will support the future transposition of European Community Law, the first priority is that the legislation can be implemented as soon as possible.

Banja Luka Project Office

Jovana Ducica 25
Phone/Fax: + 387 (0)51 215 098
E-mail address: okolina@inecco.net

Sarajevo Project Office

Hasana Kikica 13/1
Phone/Fax: + 387 (0)33 266 380
E-mail address: enlegpro@bih.net.ba

The Office of the High Representative (OHR)

The OHR is the supreme authority regarding interpretation of measures to ensure the implementation of civilian aspects of the Dayton Peace Accords. The OHR has stressed the need for environmental reform and restoration, based upon its tasks to coordinate the activities of the civilian organisations and agencies in order to facilitate economic reconstruction and rehabilitation of infrastructure. The OHR is authorised to give general guidance to the authorities about the impact of their activities on the implementation of the peace settlement.

Therefore, the OHR is required to review and approve the subject legislation created from the project to ensure the legislation supports the implementation of peace and smooth running of the common institutions of Bosnia and Herzegovina and the Entities.

Project beneficiaries. The beneficiary institutions are the competent authorities of the Entity governments of the State of Bosnia and Herzegovina, in particular:

In the Federation of Bosnia and Herzegovina, the Federal Ministry of Physical Planning and Environment, and in the Republika Srpska, the Ministry for Urbanism, Housing and Communal Affairs, Civil Engineering and Ecology.

The position of other Ministries (in the Federation: Federal Ministry of Agriculture, Water Management and Forestry and Federal Ministries of Health; Transport and Communications; and Industry, Energy and Mining, and in the RS: Ministry of Agriculture, Forestry and Water Management) is constantly taken into account.

Inter-Entity cooperation in the field of the environment. The Constitution of Bosnia and Herzegovina requires the Entities to negotiate and provides for the possibility of coordination between the Entities. The Presidency may decide to facilitate inter-Entity coordination on matters not within the responsibilities of Bosnia and Herzegovina, with the full agreement of both Entities. An "Environmental Steering Committee" (ESC) has been set up. The Entity governments signed a Memorandum of Understanding as a basis for the establishment of the ESC where it is acknowledged that:

- environmental issues are not limited by the boundary between the Entities, and environmental problems are not confined within man-made boundaries;
- there is an urgent and important need to find solutions to environmental problems; and that
- the Entity governments recognise the need for a mechanism of inter-Entity cooperation

Four representatives from each Entity take part as voting members of the ESC. In addition, representatives of the OHR, International Management Group (IMG), USAID, the World Bank and the European Commission may take part in the ESC as non-voting members.

All parties are willing to cooperate in the development of environmental regulatory mechanisms. The ESC is already working on several programmes, including the Danube programme, the Mediterranean Action Plan and the European Union LIFE Programme. Both Entity governments have asked the European Commission to provide necessary funding and expertise to assist in establishing a legislative framework for Bosnia and Herzegovina. There is a firmly rooted desire that such policy and legislation should align with that of the European Union, this being a requirement for membership of the European Union, which might be negotiated in the future.

In this issue

- Nature Conservation in the EU and its Member States
- Nature Law - enforcement, intentions, principles
- Problems and Issues facing Nature Protection
- EU Air Quality Legislation: EC Legislative Framework for Air Protection
- Air Protection - Principles, Technical Solutions, Implementation
- EC Legislative Framework on Waste Management:
- Practical Aspects of Waste Management in the EU and its Member States
- Draft Water Protection Law for BiH - Separation of Responsibilities
- The Draft Water Protection Act - Technical Implications
- The Austrian Experience

Nature conservation in the EU and its member states

Nature conservation has been part of EU environment policy since the early 1970s. The most important instruments are the "Birds Directive" and the "Habitats Directive", which constitute the legal basis for the protection of rare and endangered species and natural habitats.

The **Birds Directive** protects all wild living bird species and their habitats on Community territory. In particular, about 200 species listed in Annex I of the Directive require the classification of Special Protection Areas (SPAs). The **Habitats Directive** is the main instrument in the EU safeguarding biodiversity. It introduced the obligation to protect habitats and species of Community interest. Each member state is responsible for identifying and preserving sites (SCI-Sites of community interest), which are important for species and habitats covered by Annex I and Annex II of the directive. Together, the SPAs and the SCIs form the European network of protected Sites, called **Natura 2000**.

The objectives of the Natura 2000 network are to safeguard biodiversity and to maintain or restore at favourable conservation status natural habitats and species of wild fauna and flora, which have been identified as being of Community interest. In order to reach these objectives, the Habitats Directive has introduced several innovative features.

Nature Law - enforcement, intentions, principles

EU legislation is enforced primarily by means of directives (indirect) and regulations (direct). Directives are "binding, as to the result to be achieved, upon each Member State to which it is addressed, but shall leave to the national authorities the choice of form and methods" (Article 249 EC-Treaty). Regulations can have "direct effect" "in relation between the Member states and their subjects only if it is clear and unconditional and not contingent on any discretionary implementing measure"(Case 44/84)

Nature protection legislation in Austria:

In Austria, there are 9 different Nature Protection Acts, 9 different Hunting Law Acts and 9 different Fishing Law Acts. For the implementation of the Birds- and the

Habitats-Directive (at least) 21 have to be adopted (not including many ordinances based on these acts)

Procedure in the event of a failure to implement a directive by a Member State (Article 226 EC-Treaty):

- A member state does not fulfil its duties under the Directive (for example it fails to adapt its legal system or does not classify an area of high importance for protected species)
- the EC-Commission is informed of this failure (from a person or a group of people or another source)
- the EC-Commission contacts the member state and asks the member state to fulfil the requirements of the directive
- the EC-Commission sends a "reasoned opinion" to the member state, if it has refused to comply;
- the EC-Commission initiates a legal procedure at the EC-Court, if the refusal persists;
- the EC-Court declares that the member state has not fulfilled its duties under the EC-treaty
- If the Member state continues to refuse, the EC-Commission initiates another legal procedure at the EC-Court and recommends a certain fine
- the EC-Court imposes a fine on the MS and a condition to fulfil all the requirements.

NATURE PROTECTION LAW

Intentions

- ecological complexity
- quality of life
- sustainable development
- to serve the environmental framework legislation
- to achieve coherence of environmental legislation as a whole
- subsidiarity

PRINCIPLES

The Principle of Intervention at Source

- (In case of damage to nature) a priority is to rectify at source.
- (The user of nature posing hazard to or damaging the nature) should stop the hazardous or damaging activity immediately.
- (The user of nature) shall provide for the elimination of the damage on nature (caused

by its activity) and the restoration of the damaged nature.

·(The user of nature) shall be liable for the impacts of its activity.

The Principle of Polluter Pay

The polluters and the users shall pay fees, charges, taxes or other payments for pollution or use of nature or natural resources (or their components) in any form of activities if they cause or are likely cause damage to the nature.

The Principle of Prevention

- (1) The use of nature shall be organised and performed in such a manner that
 - a) it shall result in the lowest level of loading and utilisation of the nature;
 - b) it shall prevent nature pollution;
 - c) it shall preclude the damaging of nature.
- (2) Nature impact assessment (as special form of environmental impact assessment), as a main instrument, shall be undertaken for proposed activities that are likely to have a significant adverse impact on nature and are subject to a decision of a competent authority.
- (3) In the interest of prevention, the most efficient alternative shall be applied during the use of nature.
- (4) The bodies of public administration, legal and natural persons or their organisations, the actors of business sectors and other institutions defined by laws shall co-operate in the protection of nature.

The Principle of Precaution

- (1) In order to protect nature, the precautionary approach shall be widely applied by organs of public administration.
- (2) If activities are likely to have a significant impact on nature or there are threats of risk of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent degradation of nature.
- (3) The use of nature shall be performed by observing the principle of precaution, by treating carefully and using economically the components of nature, furthermore, by decreasing the release of waste and by striving for the recycling and the re-use of natural and manufactured materials.



PREPARATION OF ENVIRONMENTAL LEGISLATION FOR BOSNIA-HERZEGOVINA

The Principle of Subsidiarity

(1) The nature protection policy of the central government should promote and serve the role of lower level authorities and their associations in solving problems related to nature protection.

(2) At all levels of public administration open and efficient relations are to be established with voluntary citizen groups and their organisations.

(3) For an adequate co-operation with the private sector it is critically important and should be built on a new approach of principles of this Law.

The Principle of Right for Access to Information

(1) The public companies and organisations have the right of access to information and for acquisition of knowledge about nature, thus, in particular, about the state of the nature, the level of degradation, threats or pollution, the measures taken by any actors involved in the management of nature protection or use of nature as well as the impact on human health.

(2) In order for the right of access to information related to nature, the state shall secure the exercise allow everyone to acquire knowledge about the essential connections between the state of nature and health, the activities damaging nature and the importance thereof.

(3) The bodies of public administration shall serve the right for access to information on nature, particularly about state of the nature, the level of degradation, the form of threats to nature or pollution, nature protection activities as well as the impacts on human health.

(4) Users of nature shall be obliged to provide information concerning to their loading, utilisation, as well as posing hazard to nature.

THE INSTRUMENTS OF IMPLEMENTATION OF NATURE PROTECTION POLICIES AND LAWS

1. Access to Information
2. Education and Training
3. Nature Impact Assessment
4. Nature protection and management planning and programmes
5. Information systems and monitoring
6. Inter-entity cooperation on Nature Protection

7. Public participation

8. Stimulatory and economic instruments

Main problems are :

Sample EC Court Decisions on Nature Protection legislation

Duty for the designation of Special Protection Areas - Case C-44/95 "Lappel bank"

In Great Britain a part (22 hectares) - "Lappel bank" - of a wetland of international importance listed under the Ramsar convention was the only area in which a port could realistically envisage expanding. For this reason, the Secretary of State decided to exclude "Lappel bank" from the designation as a part of the bigger Special Protection Area;

Main implications: a member state must carry out the classification of a site as Special Protection Area with the ornithological criteria permitted under Article 4 (1) and (2) Birds Directive; a member state is not authorized to take account of the economic requirements when designating a Special Protection Area and defining its boundaries

Species protection - Case 247/85

The commission pointed out that the Belgian rules classified more bird species under "game" than in Annex II of the Birds Directive, and that Belgian was only concerned with the protection of birds living in the wild state in the Benelux countries. However, Article 1 (1) of the Birds Directive includes the protection of all species of birds living naturally in the wild state in the European territory of member states

Main implications: a faithful transposition of a directive becomes particularly important in cases such as the transposition of the Birds Directive concerning the conservation of wild birds in which the common heritage is entrusted to the member state in their respective territories

Problems and issues facing nature protection

As BiH has got so many other (economic) problems, nature conservation has very low priority, but the importance for starting with nature protection as soon as possible is very urgent.

General problems are the competing common interests of land users and nature protection, forestry, hunting, fishing, but also missing is an efficient administration and control system.

- A special Law on Nature Protection is missing
- Destruction of precious documentation by war

- Data and maps are not available or too old and not relevant any more
- Official Red Lists (Crvena Knjiga) do not exist
- Currently only 0,55 % of BiH is under protection
- Lack of staff/equipment/money/control
- Low social standard, therefore no public awareness
- Preference given to projects of existential, economical and social significance
- Poor State of organisations (structure and equipment)
- Overgrazing and poor land management - including illegal settling in protected areas with fragile ecosystems
- Illegal forestry and sawmills (inspectors are helpless)
- Dumpsites often in or close to watercourses (no waste disposal service)
- Unrestricted exploitation of natural assets
- Over-exploitative forestry operations (forest is severely degraded)
- Traditional opinion that preservation and protection of nature and its diversity involves sacrifice of economic profit.
- Proliferation of roads and tracks (e.g. formed during military activity during war, off-road use)
- Tourist development (e.g. in planned National Park Area Bjelasnica)
- Complicated responsibility arrangements (within Federation, between Cantons and between both entities)
- Implementation of protected areas (National Parks) is complicated and slow
- Since the war everything has had to start from the very beginning (NGOs....)
- Landmines in BiH (estimated are over 2 Mio landmines according to SFOR-maps) and about 2000 km of trenches
- A description of the situation and the potentials of conflicts is missing
- Measurements are missing

- The competences should be determined very clearly, and an authority should be responsible for coordinating the different ministries.

- In RS Ministries should harmonize. It will be of importance to get all resources in one



PREPARATION OF ENVIRONMENTAL LEGISLATION FOR BOSNIA-HERZEGOVINA

hand, and centralise datacollection.

- The National Park Law in RS contains unclear definitions.
- Low awareness among the general population (e.g. on the protection of rivers)
- "Dirty" technologies, many small polluters
- (illegal) landfills
- Poor economic conditions (resources are rather being sold off and not protected)
- Wood cutting (it is not clearly defined in the National Park Law). The use of wood is regulated by Ministry of Agriculture and Forest.

In the first stage, it seems to be necessary and very urgent to insure that the administration is running and to find a practicable way of enforcing the law on nature protection. It is necessary to obtain enough personnel for the proper and full enforcement of the law. However, as there are two entities responsible, it is not only necessary to ensure that the administrations in both entities function well, but also to ensure the coordination between them.

From a technical point of view, it is not so important which ministry is responsible for the Law on Nature Protection. It is necessary to obtain a solution, which is efficient and can address the main tasks for implementing the ideas of nature protection for the whole country. There is a necessity to establish an inter-entity body both for co-ordination between the entities as well as to act as a national focal point for international programmes and conventions. On the level of the entities there should be the more practical implementation of the law, for e.g. to fulfil the tasks for Nature Conservation inventories (e.g. inventories on wetlands, dry grasslands, on important bird areas and habitats of animals etc.), which have to be elaborated, and data has to be collected. Lists, maps and data of protected areas must be available at a central institution (for each entity). It is of the utmost importance to establish (a) central institution(s) for updating the "red lists".

Eu Air Quality Legislation

EU legislation and policies aimed at improving air quality contains a wide range of different elements. These include:

- *Air quality management*
- *Air quality standards*
- *Industrial emissions*

- *Vehicle emissions*
- *Fuel standards*
- *Fuel storage*
- *National emission ceilings*
- *Eco-management and auditing (EMAS)*

Air quality management

The management of ambient air quality (e.g. in cities) through the development of local management plans, under the 1996 air framework Directive (96/62). This requires agglomerations to be monitored if air quality does not meet EU standards (see below), the public to be informed and action to be taken to meet these standards. Member States are free to adopt different measures to achieve this, such as land use planning or control of vehicle movements.

Air quality standards

The role of the EU in setting ambient air quality standards changed significantly with the adoption of the air framework Directive 96/62. This established a system for monitoring and action for air quality for both human health and the natural environment. The Directive did not set particular standards - these would be developed in subsequent "daughter" Directives. The first of these was adopted in 1999 (1999/30). It covers NO_x, SO₂, PM₁₀ and lead. The second was adopted in 2000 (2000/69) covering carbon monoxide and benzene. A further daughter Directive is currently under consideration, covering ozone. The standards in the 1999 daughter Directive will replace those established in the older Directives.

Industrial emissions

Earlier legislation is now being superseded by the Directive on Integrated Pollution Prevention and Control (IPPC) 96/61. This provides a framework for the regulation of a wide range of processes aiming at optimisation of a series of environmental benefits from pollution and waste prevention/minimisation, energy efficiency, etc. The IPPC Directive contains, inter alia, the following elements:

- emission control is based on the concept of Best Available Techniques (BAT);
- emission limit values are to be set for a range of pollutants if emitted in significant quantities;
- meeting environmental quality standards may require stricter conditions than those resulting from a determination of BAT;

- other issues such as energy efficiency, waste minimisation, etc., are also to be taken into account.

While the Directive does contain a provision to enable the Community to establish community-wide emission-limit values, it should not be considered that the Directive will result in a standardisation of a determination of BAT for each process type. The determinations of BAT and emission limit values are to take account of common themes (e.g. technical developments), but also local themes (sensitive environments, economic issues, etc.) and so will only be determined at a Member State level (or at an even smaller scale). This presents obvious opportunities for wide variation in approach and so the Commission is providing guidance on specific process types through the production of BAT reference (BREF) notes. The 1999 solvents Directive (1999/13) adopts emission limits for VOCs (or national emission ceilings) for a range of smaller industrial processes as a means of reducing tropospheric ozone levels.

Vehicle emissions

Particular attention has been focused on lead, sulphur, NO_x, hydrocarbons and particulate emissions from different vehicle types.

Fuel standards

Fuel standards (e.g. regarding sulphur or lead content of petrol or diesel), which assist in reducing emissions, including from older vehicles, which may not have to meet emission standards.

Fuel storage

More specific controls relating to fuels are found in Directive 94/63 on the distribution and storage of petrol. This was designed as the first stage of a two-stage introduction of controls on VOC emissions from petrol. It applies controls in four areas:

- storage installations at terminals;
- equipment for loading and unloading mobile containers at terminals;
- mobile container standards;
- loading of petrol into storage tanks at service stations.

The standards are technology-based and are to be phased in for different sizes and types of facilities in the period up to the end of 2004. Stage two of the VOC controls has



PREPARATION OF ENVIRONMENTAL LEGISLATION FOR BOSNIA-HERZEGOVINA

now been subsumed into the more comprehensive auto oil programme. This will deal with VOC emissions from petrol during vehicle refuelling, e.g. vapour recovery. Legislation on this issue already exists in some Member States.

National emission ceilings

EU legislation may also establish national limits for individual Member States for the emission of specific pollutants. These controls are established to tackle the problems of transboundary air pollution, e.g. ozone or acid rain. While this particular proposal is under discussion, there is a history of EU legislation which caps emissions from individual Member States, e.g. of sulphur from large combustion plants.

Eco-management and auditing (EMAS)

EMAS is a voluntary scheme that allows companies to register sites, following adoption of an environmental policy, site review and establishment of an environmental management system. This must include a consideration of pollutant emissions.

EC Legislative Framework For Air Protection

EC legislation regarding air quality protection consists of various norms that have a common aim: protection of human health from the adverse effects of air pollution.

More or less, the following general "skeleton" of the EC pieces of legislation on air can be synthesized.

- action programs for improving air quality
- protection zones
- limit values
- permits/licenses
- monitoring
- data provision
- public information
- (reporting obligation of Member States)

This almost provides an entire system of air quality protection but there are more things a country has to define, too, e.g. sanctions of non-compliance, authorities, etc.

The air quality protection framework directive **Council Directive 96/62/EC on ambient air quality assessment and manage-**

ment sets the basic lines but it is always the responsibility of the Member States (in this case the accession or the pre-accession countries or entities) to adopt the necessary national legislation.

Aim of the draft law on air quality protection: to satisfy both requirements: to be **EU-conform** and at the same time specific for the **Entities**.

Air Protection - Principles, Technical Solutions, Implementation

The draft air protection law developed by the consortium is based on the following **principles**:

Effect-based measures: E.g., ambient air quality limit values as contained in the By-law are based on recommendations by WHO; they were derived according to their observed or estimated effects on health and/or on the environment. In case they are exceeded, specific measures have to be implemented to meet them in the future.

Universality: The same standards were used as defined in current EU legislation.

Feasibility: The difficulty of achieving compliance with standards within a short time has led to the introduction of transitional periods.

Polluter Pays Principle: The potential polluter should in general bear the costs of pollution prevention and control measures as well as remediation. In the context of air quality management, this means that potential emitters of air pollutants should bear the full costs of carrying out their activities in an environmentally sound manner i.e. taking air quality (and other issues) into account.

Integrated approach: Measures taken to reduce air pollution at one point or in one area should not lead to an increase in air pollution elsewhere, or to an increase in pollution of another environmental medium.

Communication and information: Public awareness and participation is key to the success of any air quality control policy. Information on emissions and ambient air quality has to be made available to the public.

Technical Solutions:

· Significant sources of emissions need a permit; for large installations, the impact on the environment has to be assessed before starting the project. Within the permit, emission

limit values are fixed. A detailed set of limit values for different installations and fuels is contained in the Annexes. The operator has to ensure and document compliance. Inspectorates will check compliance periodically. The competent authorities and the public are informed on a regular basis. Specific rules are needed for large sources with respect to emission monitoring. These provisions should be binding for new installations after entering into force of the

Case law

Case C-361/88. of the European Court of Justice concerning the transposition of Council Directive 80/779/EEC on SO₂ and suspended particulates by Germany.

Findings

1. The transposition of a directive into domestic law does not necessarily require that its provisions be incorporated formally and verbatim in express, specific legislation; a general legal context may, depending on the content of the directive, be adequate for the purpose provided that it does indeed guarantee the full application of the directive in a sufficiently clear and precise manner so that, where the directive is intended to create rights for individuals, the persons concerned can ascertain the full extent of their rights and, where appropriate, rely on them before the national courts.

2. The fact that a practice is in conformity with the requirements of a directive in the matter of protection may not constitute a reason for not transposing that directive into the national legal system by provisions capable of creating a situation, which is sufficiently precise, clear and transparent to enable individuals to ascertain their rights and obligations. In order to secure the full implementation of directives in law and not only in fact, Member States must establish a specific legal framework in the area in question.

3. The obligation on Member States to prescribe limit values not to be exceeded within specified periods and under specified conditions, laid down in Article 2 of Directive 80/799 on air quality limit values and guide values for sulphur dioxide and suspended particulates, is imposed "in order to protect human health in particular". It implies, therefore, that in all cases where the exceeding of the limit values could endanger human health, individuals must be in a position to rely on mandatory rules in order to be able to assert their rights. Furthermore, the fixing of limit values in a provision whose binding nature is undeniable is also necessary in order that all those whose activities can give rise to nuisances can ascertain precisely the obligations to which they are subject.



law; for existing stationary sources some transitional periods are introduced.

- The quality of certain products is regulated and needs to be inspected.
- Ambient air quality limit values are binding from a certain date on. To check compliance with this ambient air quality limit values, a monitoring network has to be established. This network has to fulfil minimum requirements concerning the number and location of sites, the measured components, the quality of measurement, etc. After an exceedance of a limit value, an action plan has to be elaborated and implemented to ensure compliance.

Implementation:

- Development of a Sectoral Strategy and Implementation Plans
- Emphasis on capacity building
- Involvement of stakeholders
- Set priorities and timing, taking into account economic and financial issues

EC legislative framework on waste management

Waste means, according to the 1991 amendments of the *75/442 directive on waste*: "any substance or object in the categories set out in Annex I which the holder discards or intends or is required to discard." The given annex lists 16 categories of wastes, from the off-specification products to machining/finishing residues or residues of industrial processes. The 16th category refers to the relative inability of legal documents to determine the waste categories: "any materials, substance or products which are not contained in the above categories". Waste, according to the decisions of the Court of Justice (see for example *Commission v. Belgium*) **is to be regarded as a "good"** in the context of the EC Treaty.

The Community **Strategy for Waste Management** of 1989 preceded the overall amendment of the directive in 1991, and thus served as a basis for the new legislation. The Strategy has five strategic guidelines:

- “ prevention,
- “ recycling and reuse,
- “ optimisation of final disposal,
- “ regulation of transport,
- “ remedial action.

Below we provide a brief outline of the most important legal instruments used in this field. In Summarising, of steps in a waste management system: we may speak about the following order.

The principles, priorities and general requirements provide the general part of the waste management and waste treatment system.

B

The next step is the **planning of waste management**, the waste treatment system determining the main line of implementation and administrative enforcement. The level of planning authorities is to be defined by the domestic legal systems, thus it may be done at a national, regional or local level, or by mixing all these levels together.

B

The task of **authorization** of the different activities. The authorization is the basic condition of waste treatment activities, and there are only some exceptions under the general authorization requirement. The authorization determines the most important conditions of the activities and it also provides an option for the authorities to control these activities.

B

The obligations of **notification, reporting, record keeping and information** are all different components of one general obligation. There should always be a record on authorized activities and consequently notification of the different data. Those operations which otherwise are not obliged to have a license should also keep records and usually shall at least notify their data. The information should be based upon the data collected on these notification obligations.

B

The supervision by the authorities covers the **control of conditions** provided by the authorization and also the control of accuracy of reported data.

B

In the field of those optional consequences in

case of negative results of the supervision, the use of **liability provisions** is the most direct reaction. The liability in this respect contains a great number of instruments from the amending of authorization conditions to the civil or criminal liability.

Practical aspects of waste management in the EU and its Member States

EC laws on waste set out a framework for waste management within the Member States. Basic requirements are laid down by the framework directive on waste and the Hazardous Waste Directive. Specific wastes (waste oils, packaging, PCBs, sewage sludge, batteries etc.) and specific disposal and recovery operations as well as trans-boundary shipment of wastes are regulated separately. The EU recognises the following five over-arching principles for waste management:

- Waste management hierarchy
- Self-sufficiency
- Best available technique not entailing excessive cost (BATNEEC)
- Proximity
- Producer responsibility

The Framework Directive on Waste

Main aim of this Directive is to establish a framework for the management of waste following the above-mentioned principles across the European Community. Following the aim of this directive every facility has to obtain:

- **licence** from the competent authority and has to be operated according to license conditions.
- all companies with 100 or more employees to appoint a qualified **waste commissioner** and a deputy

All Member States have to prepare and implement Waste **Management Plans** and make these plans public

The Hazardous Waste Directive

The main aims of this Directive are to introduce a precise and uniform definition of hazardous waste, and to promote the



PREPARATION OF ENVIRONMENTAL LEGISLATION FOR BOSNIA-HERZEGOVINA

environmental sound management of hazardous waste. Referring to this Directive in Member States a permit is required for hazardous waste collection, treatment and disposal. E.g. in Austria each year provincial governors have to publish a list of all firms so authorised; there are currently about 400 of them.

Construction of waste management facilities is subject to a licence from the provincial governors. Licence conditions specify environmental .

The Landfill Directive

The main aim of this Directive is to provide for measures, procedures and guidance to prevent or reduce the negative effects on the environment, and the risks to human health, from land filling of waste. Member States are forced to improve technical standards and to reduce organic contents of waste to be deposited. A modern landfill design is based on a multi-barrier concept, meaning that the long-term target of reducing emissions to a minimum is to be achieved by barriers such as

- "input" (properties or quality of waste)
- "site conditions" (geological and hydro-geological conditions)
- "landfill engineering" (landfill engineering including operation of landfills)

Referring to the "Report on a Strategy for Solid Waste Management in Bosnia i Herzegovina", prepared by AEA Technology on behalf of EU Phare, the disposal activities have to be improved at all levels, moving as rapidly as possible from the daily operation of the local dump site to the creation of regional multi-municipality facilities, each designed, built and operated to the highest standards. But it is also recognised that EC waste management standards cannot be implemented immediately.

Draft Water Protection Act- Technical Implications

The quality goal in the Water Law is based on

the existing legislation in the Entity as well as on the relevant EU legislation, especially its most important piece, the Water Framework directive (WFD) stipulates the goal to prevent deterioration of the status of all water bodies (WFD Art . 4(1)a(i)) and to reach at least a good status within 15 years (WFD Art . 4(1)a(ii)).

Concerning surface water a "Good surface water status" means the status when both its ecological status and its chemical status are at least good (WFD Art. 2(18)).

The **ecological status** has to be classified in accordance with the relevant provisions. A good status is given, if the values of the so-called biological quality elements deviate not or only slightly from those normally associated with the surface water body type under undisturbed conditions. (WFD Annex V (1.2)). For the **chemical status** MS shall, according to the WFD (Annex V (1.2.6) develop standards for a "indicative list of main pollutants". The basis for this procedure are values of toxicity on certain species, the base set being: algae and/or macrophytes, daphnia or representative organisms for saline waters and fish. These standards are to be compared with results of the monitoring programme. In case of compliance, the good chemical status is attained.

Concerning the ecological status this concept is incorporated into the draft WL developed by the consortium. The goal for the chemical status is designed in a somewhat modified way. According to article 19 of the WL the classification contains the element of characteristics of the waters, which is what the WFD asks for, but additional criteria are the use of the water (which is in the concept of other EU directives as the Bathing Water Directive (76/160/EEC in 90/656/EEC), the Surface Water for Drinking Water Extraction Directive (75/440/EEC, 79/869/EEC, 90/656/EEC in 91/692/EEC), the Fish Water Directive (78/659/EEC, 90/656/EEC in 91/692/EEC), and the Shellfish Water Directive (79/923/EEC in 91/692/EEC), directive and the) and the designation of the area concerned as sensitive or less sensitive.

According to the WFD, the goal for groundwater management is to reach at least a "good groundwater status" which means a

status achieved when both, the "quantitative status" and the "chemical status" are at least good. (WFD Art. 2).

A "good quantitative status" is achieved if the level of groundwater in the groundwater body is such that the available groundwater resource is not exceeded by the long-term average of abstraction. Accordingly, surface water ecosystems and terrestrial ecosystems depending on the groundwater level are not adversely affected. The definition of a "good chemical status" is less clear in the FWD and insufficient for direct implementation at state level.

Concerning the quantity aspect, the sustain-

Water Protection Law: The river basin approach:

The new approach to water management in the WFD requires water to be managed on the basis of river basins, rather than according to geographical or political boundaries. This enables assessment of all activities, which may affect the watercourse, and their eventual control by measures, which may be specific to the conditions of the river basin. The Water Framework Directive requires river basin management plans to be drawn up on a river basin basis. It may be necessary to sub-divide a large river basin into smaller units, and sometimes a particular water type may justify its own plan.

The existing regional structures should be used to build up a regional administration of river basins. It has to be ensured that co-ordination of functions related to each river basin will be possible. The Water Framework Directive makes co-ordination across national boundaries mandatory between Member States, and recommends it with Third Countries. In the latter case, cross boundary institutions should be installed.

To appoint a central overseeing body, with river basin based subsidiary departments or institutions to organise and carry out the day-to-day work in the river basins.

We have to bear in mind that the river basin approach applies as well to river basins that cross national borders. Within the EU considerable experience has been gained in international co-operation along rivers such as the Rhine and the Elbe.

This modified river basin approach is used for the WL too. Territorial basis for water management is the river basin (the main water system according to article 8). This main water system is divided in the water sub-systems (river basins) Una- Sana, Sava, Drina, Bosna, Vrbas, Neretva, Trebisnjica both in FBiH and in RS and Cetina in FBiH. These water sub-systems (river basins) may be divided into parts of water sub-systems.



PREPARATION OF ENVIRONMENTAL LEGISLATION FOR BOSNIA-HERZEGOVINA

ability of water use, which translates as a stable groundwater level, is one of the principles of water management according to Article 3 of the WL

In the proposed draft WL developed by the consortium chemical characterisation is to be carried out in the same way as for surface waters, which is very much in line with the WFD which leaves most of the criteria open to member states and for the time being only asks for the implementation of existing EU legislation which implies only regulations for nitrate and pesticides. Strict regulations are accepted for water intended for drinking-water supply. Those values shall be specified by the Government.

Draft Water Protection Law for BiH - separation of responsibilities

One of the main conclusions of the research "Institutional Strengthening of the Water Sector in the FBiH" (2000, March, Placenter Ltd. at al. hereinafter IS 2000) was that the tasks of this field shall be separated in order to avoid conflict of interest situations and inefficient operation of the administration.

It was suggested to separate: policy functions (environmental strategies and programmes, environmental legislation and financing), regulatory functions (planning, monitoring, supervision), licensing and enforcement, ownership and management of public property, investments and financing.

We would like to add two comments: one, that, although we acknowledge the importance of the above separation, in the recent development stage of the administration in BiH it cannot be solved at once. Some tasks are too underdeveloped to stand on their own, while in other cases the financial, professional conditions of establishing separate authorities and units are not yet given. Moreover, the enlisted functions are too numerous and it is difficult to find a logical order to them. We suggest a separation into horizontal and vertical functions.

Division of tasks between environmental protection and water management (horizontal division)

The most important separation is between those persons/organisations which own and handle the major part of the water facilities and decide on their developments, on investments connected with them etc. should not decide on the legality of such developments and investments. In other words, following the conclusions of IS 2000 we suggest to separate the management tasks from the authority tasks.

The other necessary division on horizontal level is separation of the decisions on environmental protection and on water uses. Although these issues are interrelated in the long run, they are very frequently in conflict in the everyday decisions. These two kinds of separation of tasks is strived to be solved in the Draft Water Protection Act, while in some areas we tried to express of strong interrelation of the two areas as the table below.

Division of tasks/cooperation between the water management and water protection authorities

Tasks for water protection (Ministry of Physical Planning and Environment, Chief Licensing Unit, River Basin Body, Licensing Unit, Inspection Unit)	Tasks for cooperation Mutual *** Unspecified: * - - or - - *	Tasks for water management (Ministry of Agriculture, Water Utility and Forestry; Public companies, Canton and Municipality water management authorities)
River basin water protection planning	Harmonization ***	Water management planning
Water quality and water quantity protection administration	Water quality and water protection technical tasks * - -	Water quality management (technical tasks)
Water permitting (for water uses)	Water consent is needed! - - *	Water approval (for water constructions)
Water protection concessions		Water management concessions
Organizing and ensuring public participation in water protection	Water protection permit is needed! * - -	Water supply
	Water protection permit is needed! * - -	Sewage system development
	Water protection permit is needed! * - -	Waste water treatment
		Flood protection
	Water protection permit is needed! * - -	Management of water uses (energy, navigation, fisheryrecreation)
	Water protection permit is needed! * - -	River bed training
Water protection inspection	Harmonization obligation ***	Water management inspection
Water protection fines		Water management fines



PREPARATION OF ENVIROMENTAL LEGISLATION FOR BOSNIA-HERZEGOVINA

Division of tasks between governmental and cantonal (FbiH)/ municipal level (RS) (vertical division)

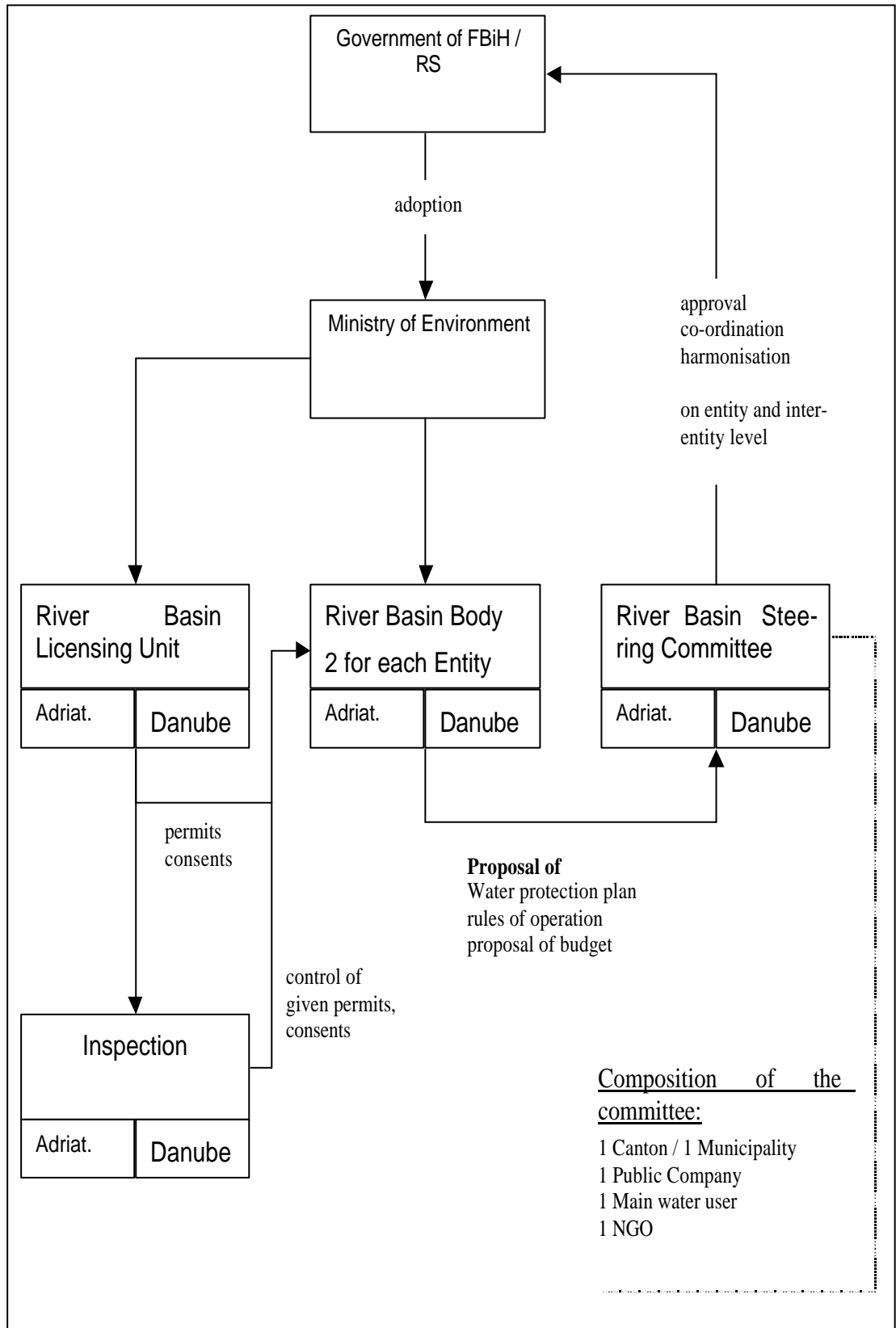
In solving the problem of the vertical division of tasks of water protection, we have to consider general policy arguments on one hand and special water protection arguments on the other hand.

We agree fully with the findings of IS 2000 that it is really important for a well operating, transparent administration to separate policy functions (environmental strategies and programmes, environmental legislation and financing), regulatory functions (planning, monitoring, supervision), licensing and enforcement. Another important approach is the subsidiarity principle, which suggests bringing the decisions as close to the people as it is possible. From water protection viewpoints, it is indispensable to take the river basins into consideration. In the case of FbiH, the general and special considerations are not easy to harmonize with each other, since the borders of the cantons naturally do not follow the geographical borders of the water basins. A well-balanced cooperation within the cantons in River Basin Steering Committees can solve this contradiction, as it is shown in the figure on right.

The river basin approach:

The new approach to water management in the WFD requires water to be managed on the basis of river basins, rather than accord-

ing to geographical or political boundaries. This enables assessment of all activities, which may affect the watercourse, and their eventual control by measures, which may be specific to the conditions of the river basin.



PREPARATION OF ENVIRONMENTAL LEGISLATION FOR BOSNIA-HERZEGOVINA

The Water Framework Directive requires river basin management plans to be drawn up on a river basin basis. It may be necessary to sub-divide a large river basin into smaller units, and sometimes a particular water type may justify its own plan.

The existing regional structures should be used to build up a regional administration of river basins. It has to be ensured that co-ordination of functions related to each river basin will be possible. The Water Framework Directive makes co-ordination across national boundaries mandatory between Member States, and recommends it with Third Countries. In the latter case, cross boundary institutions should be installed.

To appoint a central overseeing body, with river basin based subsidiary departments or institutions to organise and carry out the day-to-day work in the river basins.

We have to bear in mind that the river basin approach applies as well to river basins that cross national borders. Within the EU considerable experience has been gained in international co-operation along rivers such as the Rhine and the Elbe.

This modified river basin approach is used for the WL too. Territorial basis for water management is the river basin (the main water system according to article 8). This main water system is divided in the water sub-systems (river basins) Una- Sana, Sava, Drina, Bosna, Vrbas, Neretva, Trebisnjica both in FBiH and in RS and Cetina in FBiH. These water sub-systems (river basins) may be divided into parts of water sub-systems.

Austrian Experience

Austria faced difficulties when establishing a nation-wide monitoring system in the early 90, Austria's water quality monitoring system is run by the Federal Ministry of Agriculture, Forestry, Environment and Water Management in close co-operation with the Federal Environment Agency and the Provincial authorities.

· **The federal authorities** are responsible for the standardisation of the whole program, the computer-based data storage, the evaluation of the results and for the information of decision makers and the Public.

· **The provincial authorities** are responsible for the current realisation of the monitoring program (selection of appropriate sampling sites, sampling, analysing, storing of data at regional level, etc.)

Full compatibility of information is enforced with the help of operational guides, directives and forms, standardisation measures concerning e.g. sampling site descriptions, list and code of parameters, sampling protocols, details of data transfer and quality assurance programme.

The software packages necessary for the program had been developed by the Federal Environment Agency. The PC-software including data input masks is made available to the laboratories. The data are sent by Internet to the provincial authorities, where the first data check is carried out (in some cases data input is still managed at the level of the Provincial authorities) and the data are sent to the Federal Ministry (for reasons of the payment) and are further forwarded to the Federal Environment Agency. All data are stored at the Federal Environment Agency, handled by use of a mainframe, a geographic information system and personal computers. The data storage and archiving is operated in a central database in the Federal Environment Agency.

Monitoring

Monitoring will be an essential part of the implementation of the WFD.

The water protection law includes the water monitoring in the Water Protection Information System (Art. 78). This system will include data from a continuous monitoring of quality and quantity of waters. The RBA (river basin authority) will be responsible for development of this system.

The overall control is exercised by the Government, which will adopt the water system protection plan. The monitoring should be in line with the water system protection plan, which describes the monitoring network for surface and groundwater and conservation areas. (Art. 13 (1) 1.5)

The sources of the river basin water protection information system are especially:

- a./ **continuous monitoring of the quality and quantity of waters;**
- b./ **information gathered from permitting, consent and concession processes;**
- c./ **data from self monitoring of water users and**
- d./ **water books and water management cadastres**
- e./ **public monitoring**

The RBA will be responsible for the carrying out of the water monitoring, which will include according to Art. 78 (3):

a./ surface waters:

- the volume and level or rate of flow to the extent relevant for ecological and chemical status and ecological potential, and
- the ecological and chemical status and ecological potential;

b./ for groundwater chemical and quantitative status;

c./ **for protected areas**, in addition to the elements of points a./ and b./ those specifications contained in the legislation under which the individual protected areas have been established.

The water protection database shall be handled in computerized. Geographic Information System (GIS) arrangements and shall be available for everybody on the Internet.

Further the water protection law foresees that regulated by a secondary legislation a uniform methodology of the river basin water protection databases will be developed. It will be important to get a sufficient density of monitoring sites in the Entity, a reasonable frequency and methodology of sampling, a list of the relevant mandatory parameters, adequate analysing methods and evaluation algorithms as well as the necessary range of facilities in order to run self monitoring and to producing standardised water protection related data.

This arrangement to a large extent follows what was worked out by the IS 2000 project, with some differences. We think that unification of water management and water protection (environmental protection) branches is premature in BiH.

The water management branch of the administration has several hundred years of history, well-developed equipment and professional manpower and has a high prestige within the government and within the whole society. Its unification with such a young branch of administration as environmental protection would lead beyond doubt to a water economy driven administration where environmental views could be significantly undermined. Experience of several European countries can underline this argument, like the United Kingdom or Hungary.:

In conclusion, we can say that we fully agree with the IS 2000 report on the following: "We recommend that consideration should be given to transferring responsibility for project expenditure from the Vodoprivedas to the new River Basin Bodies and to the Vodovods. The Vodoprivedas should then be responsible solely for collecting compensation charges and should disburse the majority of funds immediately to the River Basin Bodies and to the