

Croatia – Country Report



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1. Key Findings

- Many institutions are involved in environmental assessment and information dissemination, chiefly related to inland and marine waters
- The Environmental Protection Information System will oblige ‘thematic centres’ to report data to the new Agency for Environmental Protection
- Four-yearly reports, monthly bulletins, the Internet, an information service and monthly meetings ensure citizen access to information
- Most NGOs feel their enquiries are not satisfactorily fulfilled, 40 percent are dissatisfied with the range of topics and documentation available, and 60 percent would like to see information updated weekly.
- Future priorities include strengthening legal frameworks for sampling and reporting, synthesising and distributing collected data, stronger partnerships between and among local agencies, and capacity building.

2. Current Status of Environmental Information Systems

Data Collection and Management

The Ministry of Environmental Protection and Physical Planning relies on authorised agencies to monitor and report on the state of the environment. Ground and surface water quality monitoring, legal compliance and water supply is coordinated by the Croatian State Water Directorate, and Croatian Waters (a public enterprise). Marine water quality is monitored by the Rijeka-based office of the ministry’s Environmental Protection Division. The Weather and Hydrological Bureau monitors hydrology, forest fires, and atmospheric status. The Institute for Medical Research and Occupational Health assesses ambient indoor air quality, pesticide use, and pollution from coal combustion power plants. The Hazardous Waste Management Agency tracks air quality and waste emissions; the Rudjer Boskovic Institute, radiation.

There is no systematic monitoring regime for soils and no integrated approach to monitoring air quality. Each agency maintains their own system for data management, e.g. Croatian Waters hosts an integrated GIS data system for water management, and Hazardous Waste Management Agency, a GIS database on waste disposal sites. Although initiated, an pollutant emissions cadastre was not successful because information was not properly processed and therefore not of significant use.

Interagency cooperation

There is no formal system for data exchange. An attempt was made in 1991 to establish a national Environmental Protection Information System, which was subsequently defined in the 1994 Law on Environmental Protection. This system proposed so-called 'thematic centres' to process and report data, and serve as repositories of environmental information. Partners included the abovementioned agencies, besides the Croatian Information Documentation Referral Agency (HIDRA), the Croatian Information Service for the Environment, and the Croatian Information Service for Biodiversity.

The system was intended as a collaborative initiative between ministries and government bodies. The obligations of the participating institutions were outlined in a by-law on the Environmental Protection Information System of 1999 which prescribed procedures for environmental data transmission and management. In December 2002, a new independent Agency for Environmental Protection was established with a mandate to re-establish the system and to collect data (including land quality) through various centres, for environmental assessment.

Biannually, the environment ministry is required by law to prepare an official report on the national state of the environment, for presentation to and adoption by parliament. This report depends on the inputs of the above agencies through the information system and serves as a basis for reviewing the government's environmental strategy and protection program. Ministries and government bodies, other than those directly related to the environment, rely on the bi-annual environment report when drafting national strategies or policies and spatial plans.

Public Accessibility

The environment ministry publishes a monthly bulletin called 'OKOLIŠ' ('The environment'), which reports on the current state of the environment, planned regulations, and related initiatives. Ten thousand copies are printed and widely distributed to experts, governmental and nongovernmental organizations and institutions, free of charge. The launch of OKOLIŠ on the web is still under consideration.

The environment ministry's 4-yearly state of the environment reports are distributed to stakeholders upon request and is relatively popular. The latest report was published in 2003 for the Kiev meeting, and be accessed online through the environment ministry's web page at: <www.mzopu.hr>. The website also offers information on the ministry's work, and links to those institutions whose activities, publications, documentation and data it tracks and processes. Additionally, the e-mail addresses of employees are offered, and the public are encouraged to e-mail enquiries. The Information Dept. of the environment ministry was established in 1998 and handles approx. 30 requests and 50 visitors per month from students, NGOs, and citizens. The

Dept. provides access to 2,500 books, 200 periodicals, and 1,800 databases and directories covering national monitoring data, environmental assessments, educational resources and contact data to NGOs.

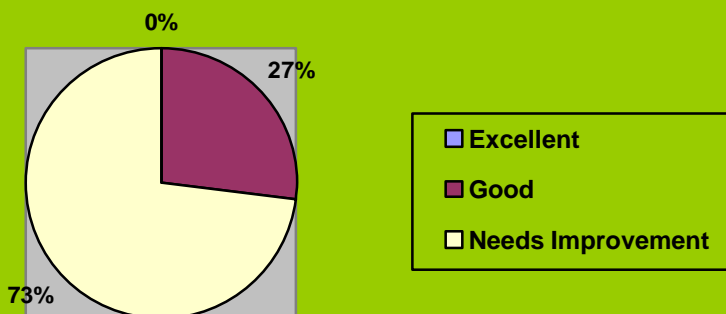
The environment ministry also recognises the importance of NGOs as consumers of environmental information, and hosts monthly meetings with them. It invites NGOs and the business sector to participate in 'working groups' for the preparation and drafting of relevant documents (e.g. regulations, expert material).

Individual agencies also make environmental information available as follows:

- Croatian Waters – monthly newsletter entitled 'Croatian Water Management' on the state of water resources.
- The Rudjer Boskovic Institute - virtual library of data and catalogues on Croatian scientific works and appx. 1,500 free electronic magazines
- The Weather and Hydrological Bureau - monthly Bulletin on meteorological, hydrological and environmental issues (available on CD-ROM for EUR 7).
- HIDRA - official government document distribution in a variety of formats (books, journals, maps, CD-ROMs, videocassettes etc.).
- The Croatian Information Service for the Environment – encompassing air quality, marine and inland waters, protected areas, projects, and contact data.
- The Croatian Information Service for Biodiversity – clearinghouse and library on the country's flora and fauna, scientific projects, and leading institutions.
- The Croatian Bureau of Statistics – statistical environmental data collection and publication (e.g. 'Environmental Pressure Indicators').

What NGOs had to say about the usefulness, accessibility and reliability of official environmental information

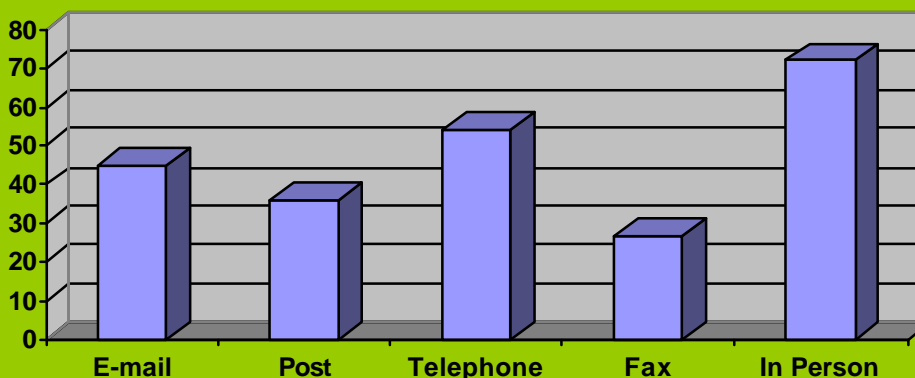
NGOs depend on ministries for current and reliable environmental information. Of those surveyed, 91 percent have requested information from the environment ministry or other authorities, and average 11 requests per year. Most NGOs felt, however, that the relevant authorities are not fulfilling these requests satisfactorily. None rated the quality of information provision as excellent and 73 percent felt improvement was necessary (see pie chart below). Specifically, only 45 percent said that responses are generally provided in time, and 9 percent stated that responses never arrive. Forty-six percent of NGOs noted they have been denied information, often without reason but also because the organisation with which the request was filed does not have the information. One NGO commented that *“staff is not specifically interested and motivated to provide information.”* Another commented on the poor level of local access.



As regards the quality of information, one NGO noted that citizens do not have regular access to objective and truthful information, except through other NGOs, and cited the inaccuracy of water quality sampling. Sixty percent of NGOs were satisfied with the range of topics covered, 40 percent dissatisfied and requested better information on industrial emissions, local planning, coastal information, forest decline, and soil quality. Almost all were dissatisfied with the available documentation, one NGO noting *“Reports on status and problems on environment do not reflect realistic situation”* and that *“there is a constant threat for directors of government institutions giving realistic information to the public.”* Useful materials for teachers and children, regarding local planning policy, legislation and events were called for.

Sixty percent of the NGOs surveyed found official information to be poorly presented, but nevertheless informative. All considered it to be “somewhat up-to-date,” though sixty percent requested information related to soil and water quality, pollutant emissions and accidents to be updated weekly. Eighty percent called for more independent reporting on the environment, particularly through the popular media (newspapers, TV, magazines), while one NGO called for widespread information dissemination and better environment ministry cooperation with NGOs.

Concerning the methods used to request environmental information, the following chart indicates 72 percent of the NGOs surveyed tend to make enquiries in person and 54 percent by telephone. In the future, NGOs wished to access information electronically online within databases, via telephone and in hardcopy, including via an independently published bulletin.



3. Obstacles and Challenges for the Future

Many of the components of a national environmental information system are in place, however, basic data on the environment (e.g. for soils and air quality) is not widely collected or well integrated. Among the obstacles and challenges are the following:

First, a highly complex system has been envisaged with many institutions involved. This has resulted in problems regarding their coordination; data incompatibility; the high level of funding required for operation; and the time required for realisation.

Second, the necessary institutional capacity has been lacking both within and outside the environment ministry. This includes an outdated legal framework and programme for systematic monitoring; limited capacities for data collection, processing, and exchange; limited recognition by decision-makers of the importance of high-quality environmental data, and weak participation in international initiatives.

Third, the dissemination of useful information is not practicable because either data is not yet collected, or it is not reported according to standardised formats.

4. Needs and Priorities

Institutional strengthening is necessary on several counts. The National Environmental Action Plan (NEAP) of 2002 defines the environmental information system as one of the highest priority actions. The **legislative framework** needs to be revised and harmonised with international standards for sampling and reporting.

Cooperation with the European Environment Agency is necessary to ensure consistency with obligations arising from the accession process.

Strong partnerships are necessary between Croatia's agencies currently involved in collecting and distributing information within the framework of the Environmental Protection Information System. A quasi-independent body, an "**Office for the Management of Sources of Information Required for Nature and Environment Protection**," placed within the Environmental Protection Agency needs to operate as the hub of this system. The Office will coordinate the data providers and synthesise the information received, and disseminate it. It needs to have at its disposal the necessary technology and human resources for integrated information management.

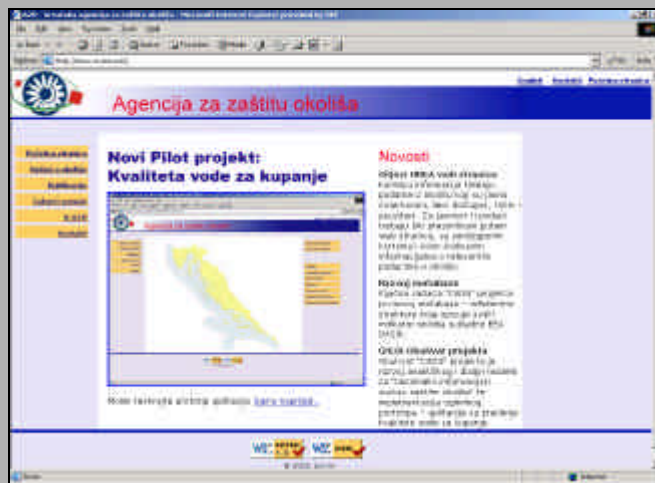
Capacity building within both the environment ministry and other agencies is necessary as many government employees are not skilled in the use of computers, the Internet or other electronic tools. Employees with the necessary technical skills need to be hired and current employees respectively trained.

Electronic tools need to be invested in. A "**meta database**" (inventory) of the available information needs to be created to help identify gaps for improving future environmental assessment, as well as to enhance accessibility. Conditions for information access need to be defined. In the longer term, **geographically referenced databases (GIS)** should be linked to improve environmental quality assessment.

Further details on priorities and foreseen actions are detailed in the National Action Plan included overleaf drafted with the REReP 1.8 project team.

Case Study on Donor Funding

The Netherlands Ministry of Foreign Affairs financed the development of a pilot GIS information system on Croatia's coastal waters and the Neretva delta. The resulting information is being made available on the Environmental Protection Agency's new national web portal.



The 'coastal waters' element of the portal at: <www.croea.com> provides access to:

- marine water quality during the bathing season;
- pollutant releases from more than 1900 Croatian enterprises (raw data and interpretations in various forms, e.g. tables, charts, maps);
- contact data to major information providers and details on how to access data;
- full texts of environmental legislation, programs, strategies etc.

Benefits

The pilot project provides marine and coastal information to a wide range of users via the Internet. This vastly simplified access to data on bathing water quality is expected to improve coastline management in the region, critical given the huge tourist industry. At the same time, it serves to test the integration of thematic information into the national portal, which over time will detail other topics in compatible formats. Compliance with the Aarhus Convention is also achieved by publishing information on operators impacting the environment, and on their pollutant emissions.

Expenditures

ITEM	SUM (Eur)
Computer equipment	40,000
Data management system design	65,000
Trainings & documentation	30,000
Web portal design, launch and maintenance	19,650
Workshops	10,000
TOTAL	164,650

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Croatia – Action Plan for National Environmental Information System Development

(prepared by Monika Trsic, Ministry of Environment and Physical Planning, Morana Belamaric, REC Country Office, Ana Babic, Dobrivoj Kleber, programi PINTA d. o.o).

PRIORITY NEEDS	CURRENT STATUS	FORESEEN ACTIONS	EXPECTED BENEFITS	INDICATORS OF SUCCESS	REQUIRED RESOURCES	MATCHING RESOURCES	TIME-LINE
Institutional establishment of environmental information system	[A framework exists under the auspices of the “Environmental Protection Information System,” but requires significant investment (i.e. legal basis, coordination, human resources)]	<p>Create environmental data flow diagrams</p> <p>Implement a pilot project for one particular theme</p> <p>Establish an Environmental Protection Agency to coordinate data providers and synthesise the information received</p>	<p>Inventory of existing elements comprising the environmental information system,</p> <p>Understanding of gaps leading to identification of future actions to strengthen the information system</p>	Institutional usage of state of the art IT solutions in the pilot area	<p>EIS development team</p> <p>Hardware/ software for the pilot project</p> <p>2 months manpower</p>	<p>REReP 1.6</p> <p>REReP 2.2</p> <p>REReP 1.7</p> <p>REReP 1.15</p>	Initiated mid-2002
Legal Framework	By-law on the Environmental Protection Information System	Identify [and transpose] relevant EU legislation in the fields of monitoring and reporting	Integration with EU standards	[Full harmonisation] of the legal framework for information system development	<p>Legal expertise</p> <p>2 months manpower, as above</p>	<p>REReP 1.6</p> <p>REReP 2.2</p> <p>REReP 1.7</p>	Ongoing
Data collection and management	<p>Incomplete monitoring network</p> <p>Each agency maintains their own system for data management</p> <p>No adequate system for formal data exchange</p>	<p>Conduct gap analysis [and review of current status against EEA reporting requirements]</p> <p>[Establish an Office for the Management of environmental information within the Environmental Protection Agency]</p>	<p>[Improved environmental reporting and its accuracy]</p> <p>[Improved coordination of agencies involved in data collection and management]</p>	[Functioning] reporting procedures according to EEA standards	<p>European Environment Agency consultant</p> <p>EIS development team</p> <p>Finance, expertise, and coordination from the environment ministry</p>	<p>REReP 1.6,</p> <p>REReP 2.2,</p> <p>REReP 1.15</p>	[To be determined]

					6 months manpower		
Information dissemination	<p>Bi-annual state of the environment report and monthly newsletter</p> <p>Existing environment ministry website being upgraded</p> <p>Lack of coordination among the many organisations involved in environmental information publishing</p>	<p>Produce a meta-database/directory of available environmental information and those responsible</p> <p>Training for civil servants on environmental reporting for NGOs and mass media benefits</p>	Publicly accessible meta-database on what data exists, and where and how to find it for citizens	<p>Operational directory for information exchange</p> <p>Public popularity of the meta-database</p> <p>Level of usage and feedback from the public, NGOs, businesses, local governments and ministries</p> <p>[Completed training workshop]</p>	EIS team [for website maintenance]	<p>REReP 1.6</p> <p>REReP 2.2</p> <p>REReP 1.15</p> <p>REReP 1.8</p>	On-going process (started at the beginning of the project)
Use of environmental information in policy and decision making	Official environment report presented to parliament and serves as basis for reviewing the government's environmental strategy and protection program	<p>Identify all information users' needs and expectations</p> <p>Development of "user friendly" reporting format</p>	Simple access to accurate and reliable information	Policy and decisionmaking (both institutional and general public's) based on [regularly reported] facts		<p>REReP 1.6</p> <p>REReP 2.2</p> <p>REReP 1.15</p>	On-going process

REReP 1.6: Continuation of Environmental Monitoring and Assessment in Bosnia and Herzegovina and FYR Macedonia and Extension to Croatia

REReP 1.7: Strengthening National Environmental Protection Agencies and their Inspectorates in the South Eastern European Region

REReP 1.8: Developing National Environmental Information Systems in the SEE Countries

REReP 1.15: Regional Environmental Information Portal for South Eastern Europe

REReP 2.2: Support Developing Strategies for Implementation of the Aarhus Convention in South Eastern Europe