

Developing and Implementing Integrated National Pollutant Release and Transfer Registers in the Accession Countries of Central and Eastern Europe

Edited by

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Introduction

The development of a pollutant release and transfer register (PRTR), which is an integrated register of emissions and transfers of potentially harmful pollutants, has several benefits for the public, the government and businesses. It is a powerful tool for allowing public access to information on emissions and transfers of pollutants which may affect local communities. The PRTR can also be a useful tool for governments to encourage improvements in environmental performance, to track trends, to show progress in reducing pollution levels, to monitor compliance with certain international agreements, and to set priorities and evaluate progress through environmental policies and programs. It can also be used for the purpose of environmental management and pollution prevention. Ensuring efficient public access to PRTR data by actively providing information contributes to public awareness about the environment and promotes democratic institutions as well as the openness and transparency of government. If such systems are made easily accessible by the public through electronic means, public institutions are substantially relieved of the burdens of handling individual requests for information.

In the past 10 years, a considerable amount of international experience has accumulated on PRTRs, mainly resulting from the experience of the United States Toxics Release Inventory (TRI), which was the first system to integrate and make publicly available emission and transfer registers, and from the United Nations Conference on Environment and Development (UNCED)/Agenda 21 process, where chemical safety and the issue of communities' "right to know" were given substantial attention.

What is a Pollutant Release and Transfer Register?

A Pollutant Release and Transfer Register (PRTR) is a database of potentially harmful releases (emissions) to air, water and soil, as well as of wastes transferred off-site for treatment or disposal. Typically, facilities releasing one or more of a list of specified substances must report periodically as to what was released, how much, and to which environmental media. This information is then made available to the public both as raw data and in the form of analyses and reports. The development and implementation of such a system adapted to national needs represents one component towards developing a means for governments, enterprises and the public to track the generation, release, further use and disposal of various hazardous substances from "cradle to grave."¹

Following the recommendations of chapter 19 of Agenda 21, the Organisation for Economic Cooperation and Development (OECD) developed a Council Recommendation on Implementing Pollutant Release and Transfer Registers in which it called for establishing and making publicly available national pollutant release and transfer registers in 1996. The same year, the OECD developed a Guidance Manual for Governments on Pollutant Release and Transfer Registers.² The term PRTR was used for the first time to describe the system based on the experience and best practices of the reporting systems. While the emphasis remained on public accessibility to emissions data, the benefits to environmental management also reached the forefront. Several pilot projects and training sessions were conducted in the CEE countries and outside Europe by the OECD, the United Nations Institute for Training and Research (UNITAR) and the United Nations Environment Programme (UNEP) Chemicals.

Following the success of the US TRI system, similar initiatives were started in Canada, the Netherlands and later in many other countries in Europe including Norway and the United Kingdom as well as in Australia, Japan, Mexico and Chile. The Dutch National Pollutant Emission Register is one of the most comprehensive systems in Europe and includes estimations of releases from non-point sources. Several other European countries have developed emission registers with different scopes as well.

¹ See The Aarhus Convention: An Implementation Guide, United Nations, New York and Geneva, 2000, p. 82.

² Pollutant Release and Transfer Registers (PRTRs): A Tool for Environmental Policy and Sustainable Development – Guidance Manual for Governments. Paris, OECD. 1996. OECD/GD(96)32.

The European Union has also initiated its own sub-regional reporting system within the framework of the European Pollutant and Emission Register (EPER), building on the Directive on Integrated Pollution Prevention and Control (IPPC Directive). The EPER was established as a regional register to which certain information is submitted from the existing national emission registers of the EU member states. The EPER did not reach the full extent of a PRTR model as developed under the OECD initiative. The regional character of the register and the need to reach common denominators for the 15 member states have led to a reduction in the number of substances included, a longer reporting period and other elements such as the exemption of waste transfer from reporting requirements. Despite all these factors, the system has been a progressive step forward to encourage all the member states, and later the accession countries, to develop integrated registers of emissions where they did not exist and to come up with certain common standards. Moreover, in the past two years the European Commission Environmental Directorate has repeatedly stated its intention to expand the EPER and develop it into a full PRTR system in the next four to five years.

The existing systems of emissions registers in the CEE region have been developed and designed to assist governmental agencies in fulfilling their tasks related to environmental protection. In practically all the countries, many of the institutions have developed not only their own systems of registers but also their own methodologies of analysis and processing the data. This has led to multiple non-compatible and non-consistent registers and inventories run by multiple institutions and departments, very often without coordination even among the agencies themselves. The information produced as a result of these exercises might very well provide each separate institution with the minimum information required to fulfil its environmental responsibilities. However, such information provides neither a clear picture regarding the levels of pollution, nor contributes to tracking trends or setting targets. Due to uncoordinated and incompatible methodologies, there is little, if any, exchange of information, but there is substantial overlap in activities and insufficient flow of information among the agencies.

One of the most serious deficiencies of the existing systems, however, is that they have been designed solely for the purpose of assisting particular agencies. The information produced as a result of running such registers is too sporadic and incompatible for efficient use by the general public. The lack of a single integrated system allowing access to information on emissions from concrete facilities, in all environmental media, and on the most significant substances creates a serious obstacle not only for public access to information, but also for the effective use of such information by the public, government, and businesses.

Several EU accession countries, including the Czech Republic, Slovakia, Hungary, and Poland expressed interest in PRTR developments in the second half of the 1990s in cooperation with the OECD and UNITAR. Pilot activities took place in Slovakia and the Czech Republic to start discussions and capacity building for developing such registers. The Czech Republic drafted a law which was based on the existing elements of their reporting systems while incorporating the requirements of the IPPC Directive and EPER as well as the PRTR. Although the dynamics of PRTR developments have slowed down in the accession countries due to the intensive process of EU harmonisation, the PRTR Protocol under the Aarhus Convention has bridged gaps among earlier PRTR initiatives and EU initiatives. In addition, it has also contributed to the development of national PRTRs in an international context. The Aarhus Convention process on PRTR has also provided an excellent opportunity for the accession countries to discuss the establishment of integrated pollutant release and transfers registers at the national level in a harmonised and coordinated manner. At the same time, it has also been an opportunity to contribute to a region-wide approach during negotiations.

The Czech Republic chaired the Task Force on PRTR under the Aarhus Convention and played a leading role in the Inter-governmental Working Group on Pollutant Release and Transfer Registers. The group negotiated a new, legally-binding instrument on PRTR after it was established upon recommendation of the Second Meeting of Signatories of the Aarhus Convention. As a result of almost two years work, the working group developed a PRTR Protocol under the Aarhus Convention and agreed on the final text at the end of January 2003.

The new legal instrument is an important step forward for most European countries. Although it is not as far-reaching as originally envisaged, it includes many of the crucial elements of a "classical" PRTR.

INTRODUCTION

The main elements of the register will require an integrated multi-media approach covering all environmental media, including air, water, land and underground injection. It has a facility-specific approach and will include releases, but only off-site transfers, and a limited reporting obligation on non-point sources. Public accessibility and dissemination of data and some public participation in decision making regarding the development and operation of national PRTRs is also included. The register also takes a two-track approach to accommodate both the pollutant specific-approach and the waste-specific approach regarding the transfer of waste and regarding thresholds, which accommodates both the EU and the Canadian systems. The protocol left open, however, a few issues which require future work and negotiation. (See more details on the content of the PRTR Protocol in the next chapter.)

For the accession countries as well as for other CEE countries it is important that the new protocol also provide an opportunity to integrate EU requirements into this process. It is also essential that they can proceed with building a national PRTR system and also harmonise their system with EU legislation.

The protocol provides a minimum foundation for the development of PRTRs. However, each country can go beyond the protocol and develop a system which accommodates its needs and conditions. Therefore, the experiences of countries with developed systems and the accumulated knowledge of various international organisations is crucial to each country's work on the national level.

Promoting the Development and Implementation of the PRTR Protocol

The REC has been actively involved in the negotiation of the Aarhus Convention and its implementation and has contributed to the development of the PRTR Protocol. The organisation has also supported raising the awareness of and providing information to stakeholders about the new protocol, including giving feedback on the content and opening a dialogue on the possible implementation of the future legal instrument.³

In addition to these activities, the REC has also implemented a project aimed at building synergies between the drafting process, the future implementation of the Aarhus PRTR Protocol and national level issues related to developing and implementing integrated national registers in compliance with the EU requirements, with a special focus on accession countries. The project Assist Developing and Implementing Integrated National Pollutant Registers (PRTRs) is funded by the Royal Ministry of Environment of Norway and has been also part of the OECD Environmental Action Plan (EAP) Task Force Program for CEE. It will run until the end of 2003.

This publication was prepared within the framework of this project in order to share the experiences and results gained from nearly two years of project activities with other accession and CEE countries.

The objectives of the project are:

- to promote the development and implementation of integrated national PRTRs or National Pollutants Registers in selected accession countries (Hungary, Czech Republic, Poland, Slovakia, and Bulgaria)
- to assist in developing national PRTR systems compatible with the IPPC Directive and with the upgraded EPER system, as foreseen in the Sixth Environment Action Program of the European Community, and with the more integrated PRTR systems to be developed under the Aarhus Convention.
- to facilitate the transfer of experience and expertise among the accession countries, other interested CEE countries and EU member states as well as countries which have good practices in this field.

The project foresees small pilot projects in five accession countries to discuss the steps and strategies leading to the establishment of PRTR systems in harmony with EU requirements, including a dialogue at the national level with the involvement of ministry experts, NGOs and other stakeholders. The pilot projects are underway in the Czech Republic, Poland and Bulgaria and the results of these projects are presented in the country reports included in this publication. Preliminary consultations and discussions have been held in Hungary and Slovakia to start similar activities in 2003.

A regional workshop was held on March 24-25, 2003 at the REC in Szentendre, Hungary to provide an opportunity for sharing expertise and experience among governmental and NGO experts from accession and other CEE countries, Western European countries with mature PRTR system and international organizations such as OECD, UNECE and UNITAR. Workshop participants discussed the needs and problems regarding development of PRTR systems in harmony with the Aarhus PRTR Protocol and EU requirements. They drafted possible solutions and recommendations for strategies to implement such systems in accession countries. The conclusions section of this publication has greatly benefited from the results of the workshop discussions.

³ The activities were part of projects funded by the Dutch Ministry of Housing, Physical Planning and the Environment between 2001 and 2003 with the title: "Aarhus Instrument on Pollutant Release and Transfer Registers (PRTRs): A Community Right to Know Tool" and "Aarhus Protocol on PRTR: Towards the Kiev Conference."

Part I: The New UNECE Protocol on PRTR

The importance of the integrated emissions registers as a public "right to know" tool was underlined in negotiating the text of the Aarhus Convention. Article 5.9 calls for progressive establishment of the integrated emission registers on the national level and also indicates some of the key features and elements of such systems.⁴ In addition, article 10, paragraph two of the convention urges signatories to "review their experiences in implementing the provisions of Article 5, paragraph 9 and consider what steps are necessary to develop further the system referred to in that paragraph, taking into account international processes and developments, including the elaboration of an appropriate instrument concerning pollution release and transfer registers or inventories which could be annexed to this Convention."

Based on these provisions, the signatories to the convention at their second meeting in July 2000 in Cavtat, Croatia proposed establishing a working group to develop a legally binding instrument for adoption in the Kiev Ministerial Conference in May 2003 in order to set minimum standards and a process of establishing and maintaining the integrated emission registers on the national level. The UNECE Committee on Environmental Policy (CEP) endorsed the proposal and the Working Group on PRTR was established. Six meetings were held between February 2001 and September 2002 under the initiatives of the signatories, and two meetings were held after the convention entered into force in October 2002. A new working group was established during the Meeting of Parties in November 2002 and January 2003, during which the text of the PRTR Protocol to the Aarhus Convention was developed. The CEP decided in 2001 September that the PRTR instrument should be in the form of a protocol to the Aarhus Convention.

Because the national level reporting systems already existing in many countries vary to a great extent, many of the key elements of the protocol have become controversial. However, several key principles have been agreed to during negotiations:

- The protocol will be opened for signature and ratification to non-parties to the Aarhus Convention and non-ECE states.
- The Pollutant Release and Transfer Registers established under the protocol will be compatible with other existing systems (e.g. the EU's EPER system) — this does not mean that the protocol could not go beyond requirements of such systems as long as the requirements are not contradictory to each other.
- The protocol, similarly to the convention, will set minimum requirements and countries will be encouraged to develop more progressive systems on the national level.
- The protocol will build on existing international processes (such as the OECD Initiative, the Inter-organisation Programme for the Sound Management of Chemicals [IOMC], EPER development, etc.) to prevent duplication of efforts.
- Parties are required to work towards convergence between the different PRTR systems. However, for the coming period, in an effort to reconcile the different systems the protocol allows a two-track approach to accommodate both the North American pollutant specific approach and the EU's waste specific approach regarding transfer of waste as well as regarding thresholds.

Article 5.9 of the convention calls for progressive establishment of the registers and early drafts of the protocol planned to take a step-by-step approach to establish a process of a gradual build-up of national PRTR systems, but no agreement was reached among the negotiating countries on this despite long discussions. Countries preferred the so-called first step minimum requirements as mandatory obligations and deferred discussions and decision about the more controversial issues for the First Meeting of Parties.

⁴ Article 5, paragraph 9 of the Aarhus Convention says: "Each Party shall take steps to establish progressively, taking into account international processes where appropriate, a coherent, nationwide system of pollution inventories or registers on a structured, computerized and publicly accessible database compiled through standardized reporting. Such a system may include inputs, releases and transfers of a specified range of substances and products, including water, energy and resource use, from a specified range of activities to environmental media and to on-site and off-site treatment and disposal sites."

The protocol includes an obligation for the Parties to review the reporting requirements and “consider issues in further developments” based on the assessment of experience gained from the development of national PRTRs, the implementation of the protocol, as well as taking into account relevant international processes. The formulation of the provision allows the revision of the pollutants specified in Annex II and the revision of thresholds in Annexes I and II. It uses a flexible language regarding “the inclusion of other relevant aspects” which will be considered, naming only a few of the elements “such as information on on-site transfers, storage, the specification of reporting requirements for diffuse sources or the development of criteria for including pollutants” under the protocol. At the same time, it leaves some room for possible inclusion of other more controversial ones as well. These issues have already been discussed at the negotiations and received a certain level of support from some countries, but they were proposed for inclusion first of all by the NGOs and may include the water, energy and resource use, radioactive substances, radiation, noise and genetically modified organisms.

Key features of the PRTR Protocol

Under the protocol, parties will be obliged to establish a national PRTR based on the system of reporting which is:

- mandatory;
- annual;
- multimedia (air, water and land);
- facility-specific (point sources);
- pollutant-specific for releases; and
- pollutant-specific or waste-specific for transfers.

The PRTR system should:

- be publicly accessible and user-friendly;
- present standardised, timely data on a structured, computerised database;
- cover releases and transfers from certain major point sources;

begin to include some diffuse sources (e.g. transport, agriculture, small- and medium-sized enterprises);

- have limited confidentiality provisions; and
- allow public participation in its development and modification.

Source: Jeremy Wates, Secretary to the Aarhus Convention

Mandatory, periodic reporting

The reporting from the facilities will be done on a mandatory, regular basis. Currently, most of the national systems in existence provide for annual reporting. Facilities collect information through self-monitoring and provide this information to the governmental agency within several months after the end of reporting year. The agency then has another set period of several months to process the information and enter it into the database. The data usually appears on the register after one year to 18 months from the end of reporting year (although some countries have a much quicker provision of information: for example, the Czech Republic requires information to be put in the register within eight months of the end of the reporting year).

Although reporting from the national governments within the EU into the EPER database is currently done on a three-year basis, it is expected that the frequency of reporting under EPER will be moved to annual periods from 2008.

Multimedia

Reporting is required separately for emissions into the air, water, land (including underground injection), as well as in total for all three media. Thus, the database will allow the identification of how much of a certain chemical from a certain facility has been released into air, as opposed to the amount discharged into water or put into the land in waste. The countries that will choose to start with reporting on the total amount of waste will be able to track chemical-related information only for air and water.

Facility-specific data

Data is reported by and collected for each individual facility — this concept was widely agreed upon and did not present any controversy. Each facility reports to the national authority. The emissions and transfers data in the register is identified by facilities.

The information is collected at the central level by one agency which coordinates methodology and ensures the compatibility and consistency of information. The information for the report is collected by the facilities through self-monitoring and reported to the relevant authority (normally affiliated with the ministry of environment or environmental agency).

The facility reports information through filling in and submitting standardised forms.

Today, in most of the countries where the system is already in operation, the forms are submitted and processed electronically. However, facilities have an option to submit such information in hard copy.

Pollutant-specific reporting

One of the main principles of a real PRTR is that reporting is done for individual chemical substances, as opposed to groups and broad categories of pollutants. While the reporting for releases will be pollutant-specific, the protocol allows for the existence of two parallel systems regarding reporting on off-site transfers of waste: both the pollutant-specific and the waste-specific approach. This compromise was made to accommodate the differing EU and North American systems. The EU countries, according to their current system, prefer to publish the data only on the total amount of waste transferred, while others using the North American system supported reporting on the amount of individual chemicals transferred in waste.

There has been quite a lot of discussion on the convergence of the two systems in the future. Since facilities in many of the countries currently have to report on both, it could in fact be one plausible solution if the database on the national level reflects both the total amount of waste and the estimated amount of each listed hazardous substance found in the waste. Both information categories are of utmost interest to the public and essential from the point of view of environmental and resource management, as well as chemical safety.

Thresholds and triggers

To avoid overloading the system and overburdening the facilities, certain thresholds are usually set to limit reporting to significant emissions and transfers. Reporting is normally limited to facilities with a particular type of production. Thresholds are set for individual facilities either based on their size (normally determined through the number of employees, for instance, less than 10) or on the amount of certain chemicals used, emitted or transferred. The protocol reflects two approaches: the North American use-based thresholds and the EU release-based thresholds. In the North American systems, reporting is triggered by the quantity of a chemical used and the size of the facility determined from the number of people it employs. Under this system even small releases of listed toxic chemicals are reported, which allows clean technology to be more visible. Under the EPER, reporting is triggered by the quantity of a substance that is released with thresholds specific to each chemical and each environmental medium.

The protocol tries to accommodate both approaches as alternatives to be chosen by each party individually. For consistency and comparability purposes, however, one threshold approach might eventually be needed in future.

Structured, computerised database

The PRTR under the protocol is to be put into an electronic database. This will also be a progressive requirement and countries where hard-copy dissemination of information is more feasible at the moment will have such an opportunity. It has been established, however, through past experiences with PRTRs that the costs for running electronic databases are less. More and more countries are asking facilities to submit reporting forms electronically. Whether in electronic or in paper form, the data should be easily accessible, actively disseminated and as user-friendly as possible.

Diffuse sources

More and more countries that have a PRTR system in operation have incorporated information on emissions from diffuse sources into the database. Diffuse (or non-point) sources are sources of emissions that cannot be identified by one precise point location (e.g. traffic, agriculture, and households). The emissions from these sources are not based on monitoring data but rather on estimations that are done by the authorities themselves.

The need to include diffuse sources is obvious under the protocol. The protocol requires countries that already collect such information to put it into the database, but allows a period of time for the countries where emissions from the diffuse sources are not yet estimated to develop the system (i.e. mandatory reporting on diffuse source will probably be required for all countries only after the First Meeting of Parties).

Part II: Country Surveys on the Development of National Pollutant Release and Transfer Registers

Bulgaria

Introduction

This survey is designed to provide a general picture of how environmental reporting systems currently operate in Bulgaria. It identifies gaps between European Union policies and regulations — the Integrated Pollution Prevention and Control (IPPC) Directive, the European Pollutant Emission Register (EPER) and the Protocol on Pollutant Release and Transfer Register to the Aarhus Convention (PRTR Protocol) — and the Bulgarian system in terms of the legal, institutional framework and practices. The survey also identifies the steps required to address these gaps and may well serve as a basis for further discussions within expert groups and/or at national workshops to identify further solutions.

There are two major tools for environmental reporting in Bulgaria. The first is the National Automated Environmental Monitoring System (NAEMS), which provides aggregated information about the quality of the environment. The second is the IPPC public register, which provides polluter-specific data on IPPC activities. Neither register is in full compliance with the PRTR Protocol.

This survey was written by Stanoy Stanoev.

Status and process of development of a national pollutant release and transfer register

Current legal framework

In Bulgaria the collection of, as well as access to, environmental information is regulated by a number of laws and regulations and determined by the codes of practice among the institutions involved. The most important legal documents are:

- The Constitution;
- The Environmental Protection Act (EPA), adopted September 25, 2002;
- The Clean Air Act;
- The Water Act;
- The Act on Limiting the Harmful Impact of Wastes on the Environment;
- The Protected Areas Act;
- The Biodiversity Act;
- The Subsurface Resource Act;
- The Statistics Act;
- The Act on Access to the Public Information;
- The Act on Administrative Procedures;
- The IPPC regulation on the method and the order for issuing integrated permits for constructing and operating new industrial installations as well as for operating existing ones, adopted February 2, 2003;
- The Aarhus Convention (The Ministry of Environment and Water [MOEW] has started procedures to ratify the convention. Ratification is expected by the end of 2003.).

Article 147 of the EPA requires information concerning the state of the environment to be managed by the MOEW. According to the EPA (Article 125, page 5) and the IPPC regulation (Article 24), enterprises must report annually on the implementation of the conditions established in the IPPC permit issued to it and must submit emissions monitoring data to the appropriate authorities. Companies must submit these annual reports by March 31 of every year for the previous year. The annual report includes information about:

- the environmental management system put in place;
- the use of raw materials, water and energy;
- emissions into the air;
- emissions into water;
- waste management;
- noise pollution; and
- measures taken for compliance with the IPPC permit.

The format of the annual report is being established as part of a twinning project between the MOEW and the German government.

The information on the use of raw materials, water and energy in the annual reports may be considered confidential if this data is classified as an industrial or commercial secret, according to Article 20, paragraph one of the EPA. The data on emissions and waste management cannot be classified as a confidential and will be available in a public IPPC register.

The Clean Air Act (Article 25) establishes the monitoring obligations of operators of stationary sources of emissions, as well as their reporting obligations to the Regional Inspectorates of Environment and Water (RIOEWs) and municipalities. The operator of an installation may be obligated to monitor the local air quality. The operators' reporting obligations are in compliance with the PRTR type of reporting, but at this stage the data is not available to the public.

The Water Act (Article 174) requires operators, who discharge wastewater to monitor the quality and quantity of the effluent. The operators' reporting obligations are in compliance with the PRTR type of reporting, but the data is currently not available to the public.

The Act on Limiting the Harmful Impact of Wastes on the Environment (Article 31) requires operators to report annually on the type (according to the European Waste Catalogue) and quantity of waste generated. The report must include disposal and recovery activities as well. The operators' reporting obligations are in compliance with the PRTR type of reporting, but at this stage the data is not available to the public.

Institutional framework

The Ministry of Environment and Water (MOEW)

The MOEW plays a leading role in collecting, publishing and disseminating environmental information and is assisted by the Executive Environmental Agency (EEA). The MOEW coordinates the work carried out at the sub-national level through a network of 15 regional inspectorates of environment and water (RIOEW), four basin directorates and three national park directorates. It also coordinates national contributions to international activities, and mobilises and coordinates the financial resources required for implementation of various programmes.

The MOEW must keep a public register containing data on the issuance, review and modification of IPPC permits.

The MOEW is also responsible for the National Automated Environmental Monitoring System (NAEMS), through which a significant amount of environmental information is collected. The NAEMS also maintains an information register on permits for waste management, water use and use of bodies of water, environmental impact assessments, and protected areas. It manages a database on sanctions for polluting the environment above admissible limits, internationally funded environmental projects coordinated by the MOEW, and projects funded by National Environmental Fund. It also monitors greenhouse gas emissions.

PART II: COUNTRY SURVEY ON THE DEVELOPMENT OF NATIONAL POLLUTANT RELEASE AND TRANSFER REGISTERS

Executive Environmental Agency

The Executive Environmental Agency (EEA) is overseen by the MOEW and was created in 2000 from the former National Centre for Environment and Sustainable Development, established in 1975. It specialises in monitoring, analysis and laboratory activities for the MOEW and in disseminating environmental information. The EEA is a national reference centre for the European Environmental Agency and keeps an IPPC public register on the results of emissions monitoring as provided for in the integrated permits. The data is to be transmitted to the EPER. There is no data in the IPPC public register yet.

The EEA also manages the NAEMS and operates most environmental monitoring activities jointly with the RIOEWs, to which it provides methodological guidance. It is also responsible for the gradual implementation in Bulgaria of the European Environmental Agency's main criteria and recommendations for the establishment and operation of monitoring networks.

The EEA, according to Article 130 of the EPA, shall keep a public register of the results of emissions monitoring as provided for in the IPPC permits.

Practical issues

At this stage, all environmental data available to the public is collected by the NAEMS. The information is presented in aggregate form and gives a general picture about the quality of the environment in Bulgaria. In this regard, the NAEMS registers as a whole are not in compliance with the PRTR Protocol. Some features of the NAEMS meet a few requirements of the protocol and could be considered a good starting point for further PRTR development.

Publication and dissemination of environmental information by the NAEMS

The MOEW and other administrations on national and local levels that collect and hold environmental information are responsible under law for disseminating this information to the public.

State of the environment reports and publications containing environmental data are produced regularly (Annex I). The most important of these follow:

- The MOEW publishes an annual state of the environment report or *Green Book* in Bulgarian and English. The *Green Book* describes the policies put in place by the MOEW and its bodies. It is prepared by the MOEW in cooperation with other governmental institutions, approved by the Council of Ministers and adopted by the National Assembly. The data included is provided by the NAEMS, the MOEW, the EEA, the RIOEWs and the National Statistical Institute (NSI).
- An annual bulletin on the state of the environment is published by the MOEW and EEA and is based on monitoring data.
- An annual publication of selected environmental information is prepared by the NSI.

Thematic brochures and information bulletins are published regularly, including:

- daily bulletins on ambient air quality and radiation levels, prepared by EEA;
- quarterly bulletins on the state of the environment, published by the EEA on the basis of information from the NAEMS; and
- a monthly bulletin, prepared by the MOEW, providing information on, for example, the most important events related to newly passed legislative acts, projects implemented, sanctions on polluters, permits issued, and decisions on environmental impact assessments (EIA).

At the regional level, the RIOEWs publish a monthly newsletter with summaries of environmental information, which is circulated to municipalities.

Most publications are printed. They are available at the ministry's public information centres (PICs). PICs have been established in the six largest RIOEWs (Solyan, Varna, Rouse, Stara Zagora, Bourgas and Haskovo) and within the EEA as well. Smaller information bulletins, such as those on ambient air quality and radiation levels, are available and systematically transmitted to the Bulgarian Telegraphic Agency. Target audiences are the general public, environmental NGOs, schools and governmental authorities.

The use of the Internet as a dissemination tool has been recently given more attention. Web pages have been created for the MOEW, the EEA and the NSI.

Information on the MOEW website includes national programmes and adopted legislation, European integration, international cooperative activities, EIAs, and discussions on sustainable development.

Bulgaria's involvement in the activities of the European Environmental Agency has contributed to the launch of a user-friendly website for the Bulgarian EEA with links to the MOEW and the NSI. It contains information requested as part of the European Environment Information and Observation Network (EIONET) project, the EEA's annual state of the environment bulletin, and selected information bulletins.

The NSI web site provides a description of its statistical publications and information on how to purchase publications. Current data are not made available on the site.

General conclusion: Current practices regarding reporting activities, communication and dissemination tools are in compliance with Article 11 of the PRTR Protocol on public access to information.

NAEMS public registers

Bulgaria has a long tradition of environmental monitoring, particularly monitoring of ambient air and water quality.

Collecting, processing and summarising environmental information is carried out through NAEMS, based on continuous or periodic monitoring of qualitative and quantitative parameters. This system, which covers the whole country, is supported by an information database at the national and regional levels. It consists of:

- ambient air quality and emissions of air pollutants;
- surface and groundwater quality;
- soil quality;
- hazardous, industrial, municipal and construction waste;
- ionizing radiation;
- noise pollution;
- non-ionization emission; and
- diffuse emissions.

NAEMS environmental monitoring programmes are approved by the MOEW. The EEA is the managing and controlling authority which directs most environmental monitoring activities jointly with the RIOEWs, to which it provides methodological guidance. The RIOEWs collect monitoring data for the EEA and for their own purposes. Municipalities have a role to play together with the MOEW in supervising the self-monitoring programmes of enterprises.

Other administrations and institutions, such as the National Institute of Hydrology and Meteorology NIHM (for air quality), the Ministry of Health (for drinking water, bathing and swimming areas and noise pollution) and the Ministry of Agriculture and Forests (for soil), also carry out monitoring. A number of these activities are coordinated as part of the NAEMS.

The network for ambient air quality monitoring was established in 1972 and has improved significantly over the past 10 years. The monitoring stations operated by the MOEW and NIMH have been organised into a single system that integrates measurements from all stations.

Equipment at many of the older manual stations has been improved, and newly automated stations with continuous sampling, including mobile stations, have been added. The network (see Annex III) now consists of 66 stationary stations, operated by the MOEW and the Ministry of Health. There are 16 automated, online stations, and 50 stations with manual sampling and chemical analysis. In addition,

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there are six mobile, automated stations. Manually operated stations take samples four times a day, five days a week. Automated stations operate continuously. The stationary stations are located in 37 urban, industrial and rural settlements in various parts of the country. The basic measurements carried out are for total suspended particles (TSP), lead (Pb), aerosols, sulfur dioxide (SO₂), nitrogen dioxide (NO₂) and hydrogen sulphide (H₂S). In industrial areas ammonia (NH₃), phenols, arsenic aerosol, hydrogen chloride (HCl), chlorine gas (Cl₂), carbon monoxide (CO), nitrogen oxide (NO), ozone (O₃), cadmium (Cd) and manganese (Mn) are also measured. Tropospheric ozone is monitored at 15 of 16 automatic stations and particulate matter (PM₁₀) is measured at most stations.

Air quality is mostly monitored in urban areas. There is only one background station for air quality monitoring, operated by the RIOEW Smolian and situated on one of Bulgaria's highest peaks, the Rojen. Monitoring of trans-boundary pollution is carried out jointly by the MOEW and the National Institute of Hydrology and Meteorology.

Some 52 stations belong to the European Air Quality Monitoring Network, EUROAIRNET. Measurement results are sent to the European Environmental Agency in Copenhagen. The background station in Rojen is part of the United Nations Environment Programme-Global Environment Monitoring System (UNEP-GEMS), the World Health Organization (WHO) and the United Nations Educational, Scientific and Cultural Organisation (UNESCO) network.

Emissions monitoring has improved considerably since 1996 following the adoption of the Clean Air Act, which provides for mandatory, regular reporting of emissions by large enterprises and supports the enforcement of regulations.

For emissions from stationary sources the MOEW, the RIOEWs and municipal bodies are the responsible authorities. Bulgaria's 150 largest enterprises produce around 80 percent of air pollutant emissions. As part of their emission control efforts, these enterprises must carry out self-monitoring on a periodic or continuous basis. Continuous emission monitoring has been mandatory for large industrial plants since the beginning of 2003. The monitoring plans for self-monitoring of emissions are approved by the EEA. The operator submits self-monitoring data twice a year in accordance with Article 25 of the Clean Air Act. The pollutants to be reported are shown in Annex II, but this data is not publicly available at the moment.

Emissions of TSP, soot, SO₂, NO₂ and other specific pollutants are measured directly by the EEA in order to assess compliance with the national emissions standards. This takes place twice a year, using four mobile automatic stations and eight mobile analysers. A list of enterprises to be monitored is approved every year by the MOEW.

Aggregate information is available for the following 11 emission source groups:

- thermal power plants;
- domestic burning;
- industrial combustion processes (including power generation);
- industrial non-combustion processes;
- exploitation and processing of fossil fuels;
- solvent and other product use (diffuse sources);
- road transport (diffuse sources);
- other mobile sources and machinery (diffuse sources);
- waste treatment and disposal (diffuse sources);
- agriculture (diffuse sources); and
- natural sources (diffuse sources).

Bulgarian greenhouse gas emission inventories are performed by an external organisation under a contract with the MOEW.

The MOEW provides the United Nations Economic Commission for Europe's (UNECE) Convention on Long-range Transboundary Air Pollution (LRTAP) with yearly emissions data on SO₂, NO₂, methane (CH₄), non-methane volatile organic compounds (NMVOC), CO, NH₃, Cd, Pb, mercury (Hg), polycyclic aromatic hydrocarbons (PAH), polychlorinated biphenyls (PCBs), hexachlorobenzene

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(HCB), pentachlorophenol (PCP) and dioxins from the 11 sector groups mentioned above. Emissions from different types of energy production, industrial processes, extraction and distribution of fossil fuels, solvent use, road transport, other mobile sources and machinery, waste treatment and disposal, as well as from agriculture and nature are included. Data on SO₂, NO₂, CH₄, NMVOC, CO, and NH₃ emissions from 34 large point sources are also reported to the UN-ECE in Geneva. Data on greenhouse gas emissions are reported annually to the Secretariat of the United Nations Framework Convention on Climate Change (UNFCCC). Data on ozone-depleting substances are reported annually to the United Nations Environment Programme Ozone Secretariat.

General conclusion: The air pollution data reported to the PRTR are not in compliance with Articles 6 and 7 of the PRTR Protocol. The data are not polluter-specific. Reports on pollutants are very limited and do not comply with Annex II of the PRTR Protocol.

Water quality monitoring is carried out through a number of programmes coordinated under the NAEMS. All of Bulgaria's 78 basins are covered. The environmental administration is responsible for the physical, chemical and biological monitoring of fresh ground and surface water and of coastal water. The health administration is mainly responsible for monitoring water quality from sources supplying drinking water and for overseeing bathing and swimming areas through physical, chemical and microbiological analysis of water samples.

According to the Water Act (Article 174), the biggest water-polluting enterprises are required to self-monitor the quantity and quality of their sewage water. The pollutants to be reported are shown in Annex II, but this data is not available to the public at the moment.

The national network for monitoring surface water quality comprises 253 stations covering all major river basins (Annex IV). Three of these stations, located on the rivers Struma, Mesta and Maritza, are automatic. Of the surface water stations, some 185 are on rivers (10 in Danube), eight on lakes, 26 on reservoirs and 24 on the Black Sea. Fresh water measurements are made for some 30 parameters, including quantity, temperature, dissolved oxygen (DO), biochemical oxygen demand (BOD), chemical oxygen demand (COD), NH₃, NO₂, nitrate ion (NO₃), total nitrogen, total phosphorus, heavy metals, detergents and hydrocarbons. Measurements are taken once a month in rivers and seven times a year in the Black Sea.

Biological monitoring of surface water has been carried out since 1992. There are 1,200 sampling points, located along rivers at a distance of five to 10 kilometres. The method is based on analysis of sensitive benthic macro-invertebrates. Water quality is assessed according to the biotic index, using five levels.

Microbiological parameters such as bacteria, pathogens and coliforms are monitored in three areas (Sofia, Stara Zagora, Smolyan) at the same sampling sites used for physical and chemical monitoring.

Monitoring of the Black Sea takes place in connection with the Black Sea Convention, which has been signed by six bordering countries. According to the Convention on the Protection and Sustainable Use of the Danube River, five of Bulgaria's water quality stations on the Danube and three on its Bulgarian tributaries belong to a trans-frontier monitoring network. Data are regularly submitted to the Commission on Protection of the River Danube in Vienna and to the database of its agency in Bratislava.

Bulgaria reports monitoring results from 111 surface water stations to the European Environment Agency's Monitoring and Information Network for Inland Water Resources (EUROWATERNET) system.

The national network for monitoring groundwater quality consists of 225 stations. They take samples two or four times a year for about 30 parameters. Bulgaria reports monitoring results from 74 ground water stations to the EUROWATERNET system.

General conclusion: The water pollution data reported to the register are not in compliance with Articles 6 and 7 of the PRTR Protocol. The data are not polluter-specific. Reports on pollutants are very limited and are not in compliance with Annex II of the PRTR Protocol.

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Land and soil quality monitoring is managed by the EEA as part of the NAEMS and includes:

- monitoring and control of subsoil resources including abstraction waste and sewage sludge;
- control and protection of soil from pollution by persistent organic pollutants (20 monitoring stations for PAH, PCB and pesticides, and 48 stations for pesticide monitoring);
- acidification (70 sampling points); and
- erosion.

Data on polluted soils are collected by the EEA together with the Institute of Soil Science and Agroecology. The pollutants to be reported are shown in Annex II.

General conclusion: The soil pollution data reported to the register are not in compliance with Articles 6 and 7 of the PRTR Protocol. The data are not polluter-specific. Reports on pollutants are very limited and are not in compliance with Annex II of the PRTR Protocol.

Waste materials in Bulgaria are classified according to European Waste Catalog (EWC), which has been incorporated into Bulgarian legislation. Data on municipal waste are obtained directly from the municipalities responsible for waste management. The NSI collects data on non-hazardous waste from enterprises through annual statistical surveys. Data on hazardous waste compiled by the EEA are transmitted to the Secretariat of the Basel Convention. Bulgarian customs authorities provide data on cross-border transfers of wastes.

The waste reporting system covers some 620 landfills; almost 2,000 other waste dumps operate without proper reporting on the quality and quantity of wastes disposed. It is expected that these dumps will be closed by 2007 and will be replaced by regional landfills.

Thirty enterprises are the source for about 97 percent of the total hazardous waste generated per year. A list with the names of the companies and the quantity of waste generated is available. Information on other waste generators is not available to the public.

General conclusion: The waste data reported to the register are not in compliance with Articles 6 and 7 of the PRTR Protocol.

The National Automatic System for Radiation Control in Real Time was set up in 1997 to meet international requirements for safe nuclear energy and monitoring of trans-boundary transmissions of nuclear material (Annex V). The system is completely automated and has a hierarchical structure. It consists of 26 local gamma background monitoring stations (LMS) covering the entire country. The nuclear power plant Kozloduy benefits from special monitoring through a higher density of monitoring stations around the plant. All LMSs are supplied with measurement and communication equipment. Data are transmitted in real time to the EEA where it is processed and stored in a database. Then it is transmitted on to the authorities responsible for emergency situations and civil protection.

Radiation is also monitored as part of the air, soil, surface and ground water monitoring networks. A mobile monitoring station is available in case of accidents.

General conclusion: There are no specific requirements according to the PRTR Protocol for radiation data. The existing data are a great asset of the NAEMS register and could be used for further development of the PRTR.

Since 1998 an automated aviation noise monitoring system has been functioning to control the acoustic load in regions subject to the influence of noise pollution from Sofia Airport. Data on noise emission levels are available.

General conclusion: The PRTR Protocol sets no specific requirements for noise data. The existing data are a great asset of the NAEMS register and could be used for further development of the PRTR.

Measurements are made at certain points within the city of Sofia, giving a certain idea of the intensity of electromagnetic field (EF) flux. Data on non-ionization emission levels and a map with locations of the sources are available.

General conclusion: The PRTR Protocol sets no specific requirements for non-ionisation data. The existing data are a great asset of the NAEMS register and could be used for further development of the PRTR.

In the case of mobile sources, emission control is the responsibility of the State Automobile Inspectorate of the Ministry of Transport and Communication and the Ministry of the Interior, which report to the MOEW. Annual inventories of national emissions from mobile sources are currently established by the NSI and the EEA on the basis of motor fuel consumption and the Core Inventory of Air Emissions (CORINAIR) methodology.

As mentioned above, data are also available for the following diffuse source groups: solvent and other product use, road transport, other mobile sources and machinery, waste treatment and disposal, agriculture and natural sources.

General conclusion: The diffuse emission data reported to the NAEMS register are in compliance with Articles 6 and 7 of the PRTR Protocol.

Confidentiality

According to Article 20, paragraph one of the EPA, access to information related to the environment may be denied when the request is for:

- classified information constituting a state secret or an official secret;
- information constituting an industrial or commercial secret, designated as such by law;
- intellectual property;
- information constituting personal data, where the natural person concerned has not consented to the disclosure of the said information, and according to the requirements provided for in the Protection of Personal Data Act;
- information which would adversely affect the interests of a third party which has supplied the information requested without that party being under or capable of being under a legal obligation to do so, and where that party does not consent to the release of the material; or
- information that will adversely affect the environmental media.

General conclusion: These provisions give confidentiality very wide scope. Conflicts could arise with procedures which require public participation in decision-making processes (such as, for EIAs and issuing IPPC permits) and in cases cited in chapter two of the EPA. According to Articles 6 and 7 of the PRTR Protocol, the subjects of the public IPPC register cannot be classified as confidential as the provisions above allow.

Quality control of the data on the NAEMS Register

The central laboratory of the EEA and the laboratories of the RIOEWs carry out analysis of the monitoring samples. Harmonised procedures and inter-calibration are essential to ensure the

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comparability of the monitoring results from different monitoring networks. In Bulgaria this is ensured through:

- consistent quality assurance (QA) procedures applied throughout the entire network (The EEA and all RIOEWs have a quality assurance manager responsible for the network's QA);
- standardised analytical methods such as the handbook on air sample analysis (Some RIOEWs encounter problems with sampling methods such as in air emissions monitoring); and
- accreditation of laboratories performing analysis (Not all laboratories are accredited. Laboratories used for air quality measurements at the EEA and at some RIOEWs are accredited by the Bulgarian Accredited Body. The other RIOEWs are in the process of being accredited).
- The EEA and RIOEWs verify the data provided by polluters (as a part of the NAEMS). According to Article 147, paragraph seven of the EPA, the observation and assessment data obtained as a result of the activity of the NAEMS, as well as from self-monitoring, shall provide a basis for the exercise of control and for imposition of sanctions for violation of regulatory requirements.

Public access to the registers is a very useful tool for verification of publicly available data.

General conclusion: Current Bulgarian quality control methods are in compliance with Article 10 of the PRTR Protocol on quality assessment.

Transparency and involvement of stakeholders

Participation by the public in environmental decision-making is seen by the MOEW as a strong means of improving the effectiveness of decision-making processes and of taking into account the interests of all stakeholders. Public participation is ensured through the administrative processes of, for example, EIAs, issuing IPPC permits, management of protected areas and river basin management. NGO involvement in the development of legislation and policy programmes is another important way to attract the interest of NGOs in environment-related activities.

In recent years the MOEW has organised public hearings on draft laws and national programmes concerning environmental issues. The preparation of the National Environmental Protection Strategy is a good example. When drafting the new Environmental Protection Act, the MOEW was assisted by a lawyer representing NGOs. The Parliamentary Commission on Environmental and Water invites NGO representatives to sessions at which draft environmental laws are debated. NGO participation in the Superior Expert Environmental Council, Water Basins Management Councils, and other bodies is anticipated.

Environmental impact assessment

Public participation in the EIA process generally works well in Bulgaria. Public hearings take place for all EIAs. Procedures for public announcement of EIAs require preliminary reports to be made available to the public one month before the hearing takes place. The reports can be obtained from municipal authorities, the MOEW and the RIOEWs. The competent authorities (the MOEW and the RIOEWs) take into consideration the proposals made by all interested stakeholders. Representatives of NGOs are voting members of the Superior Expert Environmental Council within the MOEW, which takes decisions on EIA reports.

Integrated Prevention Pollution and Control (IPPC) permitting

The procedure for issuing an IPPC permit provides a number of opportunities for public involvement. When an operator applies for a permit, an advertisement is placed in local and national newspapers (as well as on the MOEW website) stating that the application can be examined by any member of the public, giving details of where and when it can be seen. The public has a 30-day period in which to make comments to the EEA on any aspect of the application. The EEA takes all submissions into account when evaluating the application and preparing the draft permit. The public is again informed when the draft permit has been prepared and another 30-day period is allowed for inspection and comment by the public. The EEA must take into account submissions by the public when considering a revision of the draft permit. The final decision by the MOEW on the permit is announced through the media. A copy of the final permit is made available for inspection at the RIOEWs and at the offices of the EEA in Sofia.

Development of the National PRTR

An MOEW working group on implementation of the PRTR in Bulgaria was established in April 2002. The main tasks of the group are to:

- prepare the Bulgarian position on the implementation of the PRTR Protocol;
- prepare the Bulgarian position on the substance and activities reported according to the protocol; and
- take into account all comments made by the stakeholders.

The representatives of the IPPC, the Air, Water, Waste and Law departments of the MOEW and the EEA are involved in the working group.

The working group has prepared the Bulgarian position, taking into account EU reporting requirements. It has been concluded that EPER and IPPC processes are a good starting point for development of the PRTR, according to the PRTR Protocol.

The MOEW, in cooperation with the Sofia office of the Regional Environmental Center for Central and Eastern Europe (REC) has invited representatives of stakeholders (NGOs, the Bulgarian Industrial Association) to participate in working group meetings. In January 2003 the MOEW, as part of the project called Assisting the Development of National Pollutant Release and Transfer Registers), organised a public hearing on the Bulgarian position on the draft of the PRTR Protocol. NGOs raised some important issues during the discussion such as the limited scope of the EPER list and confidentiality. The MOEW has taken into account all comments from the stakeholder when preparing the final Bulgarian position. It was agreed that the Bulgarian mandatory pollutant list will be compiled in accordance with the PRTR Protocol. MOEW, in cooperation with REC, has started to work on the confidentiality issue. As a first step, it has begun preparation of a survey for regulation and protection of industrial and commercial information.

Gaps in Bulgarian legislation, institutional framework and practices compared to PRTR Protocol

The Bulgarian PRTR will be based on the IPPC process and, in this respect, a lot of gaps have appeared in relation to the requirements of the PRTR Protocol.

Enterprises falling within the scope of the PRTR Protocol

The Industrial Pollution Prevention Department of the MOEW holds information on the enterprises falling within the scope of Annex I of the IPPC Directive, including details on the type, number, location, projected and current capacity of each and every installation, and the number of employees. The current number of production sites operating in their territory and falling within the scope of the IPPC Directive is 242. A preliminary survey has been done to assess the total number of enterprises falling within the scope of the PRTR Protocol (see Table 1).

Table 1. Total number of enterprises falling within the scope of the PRTR Protocol

Code of activities: Annex I of the Protocol	Description	Number of enterprises
1 a-d; 2; 3 c-g; 4; 5 a-e; 6 a, b; 7 a; 8; 9 a-d;	Enterprises falling within the scope of the IPPC Directive	242
1 e, f	Coal rolling mills and installations for the manufacture of coal products and solid smokeless fuel	5
3 a, b	Underground mining and related operations and opencast mining	35
5 f	Municipal waste-water treatment plants with a capacity of 100,000 population equivalents	10

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Code of activities: Annex I of the Protocol	Description	Number of enterprises
5 g	Independently operated industrial waste-water treatment plants which serve one or more activities of this annex	0
6 c	Industrial plants for the preservation of wood and wood products with chemicals with a production capacity of 50 cubic metres per day	1
7 b	Intensive aquaculture 1,000 tonnes of fish and shellfish per year	0
9 e	Installations for the building of, and painting or removal of paint from, ships with a capacity for ships 100 meters long	1

The total number of enterprises falling within the scope of the PRTR Protocol is 294. Some 82 percent are classified as IPPC activities.

Legal gaps

By issuing IPPC permits, the MOEW has legal instruments and procedures to require IPPC operators to submit all information in accordance with the PRTR Protocol. There are not enough legally binding instruments to require non-IPPC enterprise to report according to the protocol. The EPA could be amended in the near future to rectify this. Annex I of the PRTR Protocol should be made a separate annex of the EPA and require all operators to report according to the protocol.

Institutional framework gaps

There are no institutional gaps. Since 1975 the EEA (formerly the National Centre for Environment and Sustainable Development) has been responsible for collecting, verifying and disseminating environmental information. According to Article 147, paragraph 2 of the EPA: the creation, operation, logistics, information and software support of the PRTR shall be implemented by the EEA. In addition, according to Article 130 of the EPA, the Executive EEA shall keep a public register of the results of emissions monitoring as provided for in the integrated permits.

Practices gaps

The NAEMS register is not in compliance with the requirements of the PRTR Protocol. The data in the NAEMS register lists information on environmental quality, but without references to polluters. In cases where NAEMS measures and collects environmental data from enterprises, the link between pollution and polluter is removed because information is presented in the register in aggregate form.

Required reporting on category activities is not in compliance with Annex I of the protocol. According the EPA Article 125, page 5, only IPPC activities shall be reported.

The Bulgarian mandatory pollutant list (Annex II) is not in compliance with Annex II of the protocol and the data available in the registers are very limited.

The IPPC register, established by the EPA, shall collect and make available data from IPPC operators. The IPPC pollutant list shall include all pollutants from the Bulgarian mandatory pollutant list and the PRTR pollutant list.

The system design is not in compliance with Article 5 of the protocol. There is no information about facilities, their geographical locations, activities, owners/operators, company details, pollutants or waste created. Lists of environmental media into which pollutants are released, destinations of waste disposal, and information on recovery operations for waste are also lacking.

The quality assessment is in compliance with Article 10 of the protocol.

Public access to information is in compliance with Article 11 of the protocol. The level of accessibility varies from region to region in Bulgaria. It depends on the level of economic development in the region, availability of public information centres, and the availability of and access to the Internet. Thus, the NAEMS register does not provide equal opportunities for public access.

The confidentiality issue is in compliance with Article 10 of the protocol. The data (according to Articles 6 and 7 of the protocol) of the public IPPC register cannot be classified as confidential.

Stakeholder involvement is not in compliance with the Article 13 of the protocol. At present Bulgarian practice does not involve the public in developing a national mandatory pollutant list. Taking into account the MOEW's experience of public involvement and participation in decision-making processes, some small legal initiatives are needed to incorporate PRTR Protocol requirements into Bulgarian legislation and practice.

Current and future needs and assumptions for successful implementation

Bulgarian legislation is in full compliance with the IPPC Directive and the EPER Regulation. For the successful implementation of the IPPC Directive, administrative personnel have been recruited and trained to issue integrated permits and oversee their implementation. The EEA is responsible for managing the IPPC Register.

Eliminating inconsistencies with the PRTR Protocol requires the following:

- establishment of an intergovernmental body which will coordinate relations among governmental authorities during the process of PRTR development;
- preparation of a national strategy for implementation of the PRTR Protocol;
- amending the EPA to include Annex I and to require reporting on all activities under the protocol
- preparation of the Bulgarian pollutant mandatory list in accordance with Annex II of the protocol and current Bulgarian policies and practice;
- preparation of a system design for PRTR registers satisfying Article 5 of the protocol;
- development of PRTR software;
- improving public access to information by establishing new PICs and preparing a user-friendly web portal;
- assessing and assuring data quality through public access;
- amending the EPA to clear up the confidentiality issue and prevent conflicts regarding confidentiality and the regulation and protection of industrial and commercial information; and
- amending the EPA to assure stakeholder involvement in the development of the PRTR.

Recommendations for further steps and measures for developing an implementation strategy for national pollutant release and transfer register

Further steps	Responsible authority	Decision status
Prepare a national strategy for implementation of the PRTR Protocol in Bulgaria.	MOEW	None, planned
Establish an intergovernmental body to coordinate the relations among governmental authorities during the process of PRTR development.	MOEW	None, planned
Amend the EPA to include as separate annexes the reported activities and substances according to the protocol.	MOEW	None, planned
Amend the EPA to assure stakeholder involvement in the development of the PRTR.	MOEW	None, planned
Develop PRTR software to manage the information received	EEA in cooperation	

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Further steps	Responsible authority	Decision status
through the annual reports. The software should extract the information by subject of the PRTR from the annual reports and should prepare a database appropriate for public access via the Internet and other means in accordance with the protocol.	with the Dutch government under a bilateral project	Yes
Set up the appropriate hardware to manage the PRTR software.	MOEW and EEA	Yes
Provide adequate training of EEA staff to oversee the operation of the PRTR hardware and software.	EEA	Yes
Prepare a special user-friendly website to include PRTR data. The site should provide links to existing reporting systems and registers, answer frequently asked questions, and provide other types of material.	MOEW and EEA	Yes
Increase the number of PICs. Establish PICs in all RIOEWs and in the biggest municipality.	MOEW, RIOEWs, municipal authorities	Yes
Provide adequate training of PIC staff to improve public access to environmental information	MOEW, EEA, RIOEWs	Yes
Give information from the PRTR on diskettes or CD to anyone interested (in exchange for the cost of the diskettes or CD)	MOEW, EEA, RIOEWs	Yes
Support the development of environmental NGOs through the involvement of NGOs in the development of legislation, environmental programmes, and the PRTR. NGOs can communicate concerns of local groups to legislators and discuss proposed legislation with local populations.	MOEW	Yes
Amend the EPA to address the confidentiality issue. The amendments should reflect the regulation and protection of industrial and commercial information as well as cases which the PRTR protocol considers confidential	MOEW	None, planned

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Annex I. List of environmental reports produced regularly in Bulgaria

Title of publication	Responsible body	Description	Audience	Frequency	Cost	Dissemination	Language
Report on the state of the environment, Green book	Prepared by MOEW in cooperation with other governmental institutions	Describes the policy and activities of the MOEW and its bodies for improving the environment	Approved by the Council of Ministers and adopted by the National Assembly	Annually; First edition 1985	Print: BGN 5 Internet: free	Print Internet	Bulgarian English
Annual bulletin on the state of the environment	Published by the MOEW and the EEA (based on monitoring data)	Describes monitoring activities carried out by the MOEW; presents an analysis of the current state of different environmental components		Annually; First edition 1989	Print: BGN 3	Print Internet	Bulgarian English
Statistical Yearbook of the Republic of Bulgaria	Published by the National Statistics Institute	Since 1980 includes one section on the environment	Public at large, state authorities	Annually; First edition 1909	Print: USD 75 CD: USD 17	Print CD-ROM	Bulgarian English
Annual bulletin on environmental statistics	Published by the National Statistics Institute	Contains aggregate data from the NSI statistical survey, including air emissions; water supply, use and consumption; waste water; wastewater treatment stations; and waste generation	The public at large, state authorities, ecologists and economists	Annually; First edition 1979	Print: USD 35	Print	Bulgarian English
Quarterly bulletins on the state of the environment	Published by the MOEW and the EEA	Publication of the NAEMS; includes data from samples and analyses carried out by the RIOEWs, EEA and the NHI		Quarterly	Free	Print	Bulgarian
Bulletin on air quality and radiation	Published by the MOEW and the EEA	Short bulletin published daily and monthly; which contains information on sites where limit values for selected air pollutants have been exceeded and on radiological gamma background data from NAEMS	Available to the Bulgarian Telegraphic Agency	Daily Monthly	Free	Print Internet	Bulgarian English
Information bulletin of the MOEW	Published by the MOEW	Contains information on the most important events related to new legislation enacted, projects implemented, EIA decisions, permits issued and pollution sanctions		Monthly	Free	Print	Bulgarian
Bulletin on the state of the Danube	EEA with the Romanian National Institute	Bulletin prepared by Bulgarian EEA and the Romanian National Research and Development Institute for Environmental Protection — ICIM Bucharest		Biannually	Free	Print	Bulgarian

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Annex II. Mandatory list of chemicals and substances which operators shall report to the RIOEWs

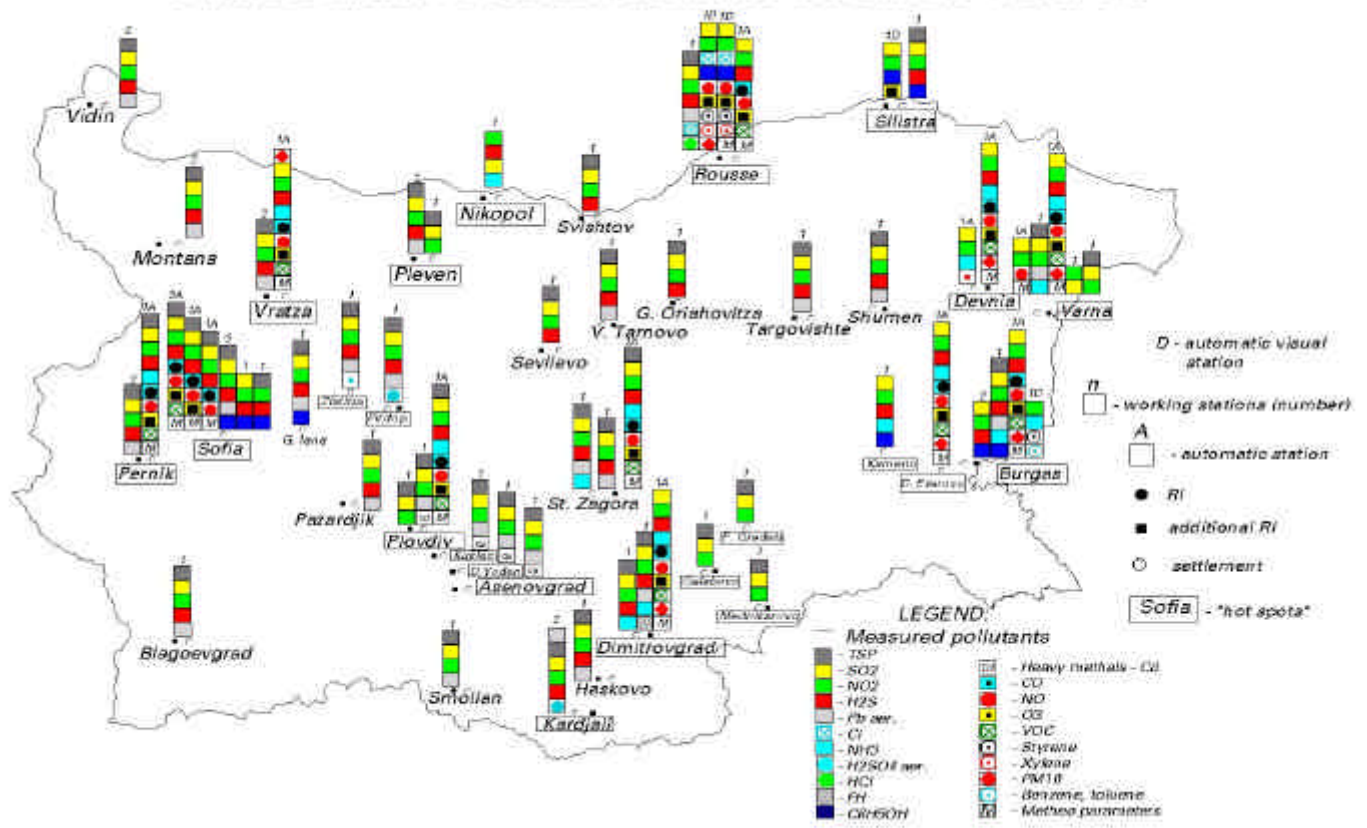
N	Air	Water	Land
1	Antinomies and compounds	Organohalogen compounds and substances which may form such compounds in the aquatic environment	Lead and compounds (as Pb)
2	Arsenic and compounds	Organophosphorus compounds	Zinc and compounds (as Zn)
3	Vanadium and compounds	Organotin compounds	Copper and compounds (as Cu)
4	Mercury and compounds	Substances in respect of which it has been proved that they possess carcinogenic properties in or via the aquatic environment; where certain substances in list II are carcinogenic, they are included in this category	Cadmium and compounds (as Cd)
5	Cadmium and compounds	Mercury and its compounds	Arsenic and compounds (as As)
6	Cobalt and compounds	Cadmium and its compounds	Polycyclic aromatic hydrocarbons (PAHs)
7	Stanium (Sn) and compounds	Persistent mineral oils and hydrocarbons of petroleum origin	Polychlorinated biphenyls (PCBs)
8	Copper and compounds	Persistent synthetic substances which may float, remain in suspension or sink and which interfere with any use of the water	Hexachlorobenzene (HCB)
9	Manganese and compounds	Zinc and compounds	1,2,3,4,5,6-hexachlorocyclohexane (HCH)
10	Nickel and compounds	Copper and compounds	DDT
11	Lead and its compounds	Nickel and compounds	
12	Palladium and compounds	Chromium and compounds	
13	Platinum and compounds	Lead and compounds	
14	Fine particulate matter < 5 µm	Selenium and compounds	
15	Selenium and compounds	Arsenic and compounds	
16	Tellurium and compounds	Antimony and compounds	
17	Rhodium and compounds	Molybdenum and compounds	
18	Thallium and compounds	Titanium and compounds	
19	Fluorine and compounds	Tin and compounds	
20	Chromium and compounds	Barium and compounds	
21	Cyanides (Soluble)	Beryllium and compounds	
22	Ammonia	Boron and compounds	
23	Arsine	Uranium and compounds	
24	Nitrogen oxides (Nitric oxide and Nitrogen dioxide)	Vanadium and compounds	
25	Bromine and its vaporous and gaseous compounds	Cobalt and compounds	
26	Sulphur compounds (Sulphur dioxide and Sulphur trioxide)	Thallium and compounds	
27	Hydrogen sulphide	Tellurium and compounds	
28	Fluor and its vaporous and gaseous compounds	Silver and compounds	
29	Phosgene	Biocides and their derivatives	
30	Phosphine	Substances which have a deleterious effect on the taste and/or smell of the products for human consumption derived from the aquatic environment and compounds liable to give rise to such substances in water	
31	Chlorine	Toxic or persistent organic compounds of silicon, and substances which may give rise to such compounds in water, excluding those which are biologically harmless or which are rapidly converted in water into harmless substances	
32	Chlorcyanide	Inorganic compounds of phosphorus and elemental phosphorus	
33	Chlorine and its vaporous and gaseous compounds	Non-persistent mineral oils and hydrocarbons of petroleum origin	
34	Hydrogen cyanide	Cyanides and fluorides	
35	Sulphuric acid aerosols	Substances which have an adverse effect on the oxygen balance, particularly: ammonia, nitrites	
36	Acetaldehyde		
37	Acetone		

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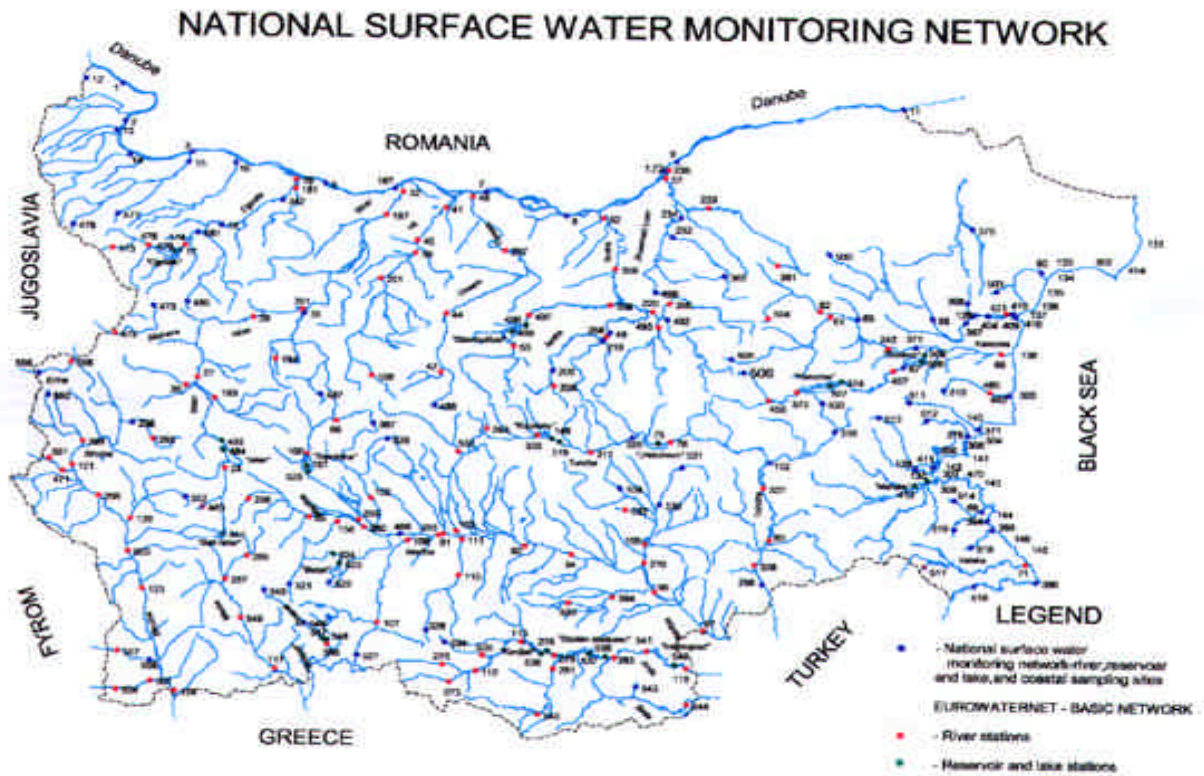
N	Air	Water	Land
38	Acrylic Acid		
39	Alkyl alcohols		
40	Aniline		
41	Vinyl acetate		
42	Butyl acetate		
43	Dibutyl ether		
44	Dichlorodifluoromethane		
45	1,1 Dichloroethane		
46	1,2 Dichloroethane		
47	Diethylamine		
48	Dimethylamine		
49	Diokthylftalate		
50	Ethyl alcohol		
51	Ethyl acetate		
52	Ethyl amine		
53	Ethyl benzene		
54	Ethylene glycol		
55	i-propyl benzene		
56	Cresols		
57	Csylols		
58	Formic acid		
59	Maleinic anhydride		
60	Merkaptanes		
61	Methyl alcohol		
62	Methyl acetate		
63	Methyl acrylate		
64	Methyl amine		
65	Naphthaline		
66	Nitrobenzezne		
67	Nitrotoluene		
68	Acetic acid		
69	Unsaturated hydrocarbons (1.3 butadiene)		
70	Saturated hydrocarbons, excluding methane		
71	Perchloroethylene		
72	Propine acid		
73	Pyridine		
74	Hydrogen Sulphide		
75	Styrene		
76	Tetrachlorotoluene		
77	Toluene		
78	Trichloroethylene		
79	Phenol		
80	Formaldehyde		
81	Phthallic anhydride		
82	Furfurol		
83	Fine straw dust < 10 µm		
84	Benzyl chloride		
85	Chloroethane		
86	Chloromethane		
87	Chloroform		

Annex III. Ambient air quality monitoring

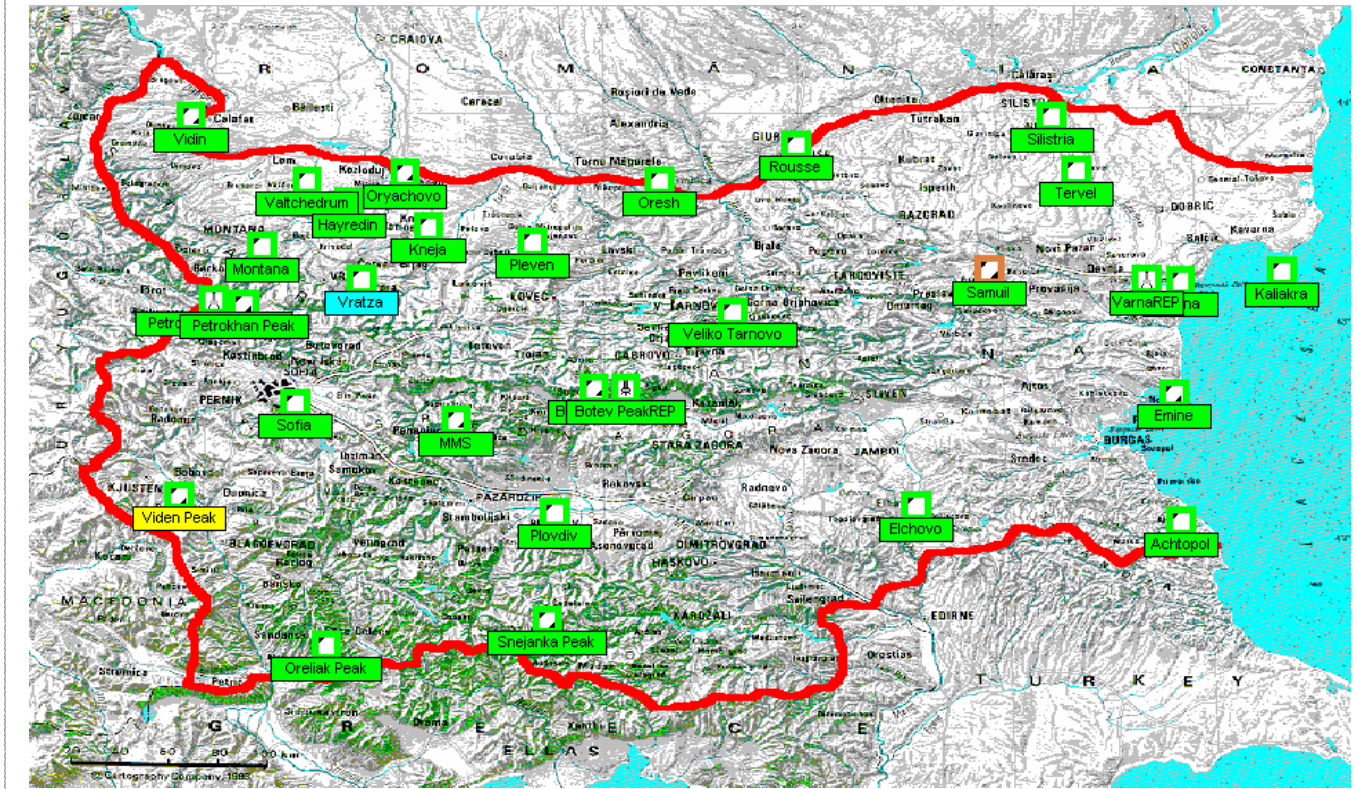
NATIONAL AMBIENT AIR QUALITY MEASURED SYSTEM AND "HOT SPOTS"



Annex IV. Surface water monitoring network



Annex V. National Automatic System for Radiation Control in Real Time



Czech Republic

This report reflects the status of the development of a Czech PRTR up to April 14, 2003. The preparation process of the PRTR technical documents in spring 2003 was quite dynamic, with many conceptual and technical details of the PRTR design still open for final decisions by the Ministry of the Environment. Opening the negotiation process to include other stakeholders in the near future (May-June 2003) is highly desired.

The report was prepared by Ondrej Velek, with input from Petr Honskus, Simona Kosikova Sulcova and Roman Vyhnanek.

Current Status of the National Integrated Pollution Register

Current legal framework of the Czech PRTR

The legal basis for setting up the Czech PRTR (the so-called Integrated Pollution Register or IPR) was established by Act 76/2002 Coll. on Integrated Prevention and Pollution Control and the Integrated Pollution Register (IPPC/IPR Act).

The proposed IPR system is chemical and facility specific, with integrated multimedia reporting, and covers some onsite pollution prevention activities and offsite transfers of pollutants. According to the mandate given by the IPPC/IPR Act, the Czech IPR should cover a broader scope of pollutants and facilities compared with the European Pollution Emissions Register (EPER) in order to replace other Czech national reporting systems without losing information.

The Czech IPR would follow the requirements of the EPER under the European Union's IPPC Directive 96/61, the PRTR under OECD recommendation C(96)41 and the UNECE Protocol on PRTR (2003). The main arguments for introduction of a full PRTR system were that the government should improve its knowledge about the flow of dangerous pollutants (chemical-specific reporting), improve information systems and the form of data processing (electronic reporting, processing and dissemination of data) and provide better public access to information on releases and transfers of dangerous pollutants (transparency). Another argument was that a more comprehensive and broad PRTR supra-system would be fully capable of producing compatible data for the EPER sub-system. These arguments were stated by the ministry during the intergovernmental negotiation of the IPPC/IPR Act in 2001-2002. Currently there are two IPPC implementation regulations: ministerial decree 554/2002 Coll. on integrated permit (IP) application and governmental regulation 63/2003 Coll. on a best available technology (BAT) information system. The IPR implementation regulation will consist of:

- the governmental decision on IPR substances, thresholds, evaluation and reporting to IPR system; and
- the ministerial decree on IPR record keeping of data at facilities.

According to the IPPC/IPR Act the government has the option to issue a governmental decision on the integration of the IPR and other relevant information systems (releases, transfers, exposures, monitoring, risk assessments, etc.) to streamline information processing and dissemination to one public portal. It is likely that both the IPR decision and decisions on integration will be joined together in one piece of legislation.

The IPPC/IPR Act requests the first reporting year to be 2004, so the IPR implementation regulations are to be in power from January 1, 2004. Collected and evaluated IPR data should be sent in electronic (and paper) form by each facility to the ministry by February 15, 2005. The deadline can be extended by 60 days (to about April 15) upon request. The government will publish an aggregated data report and will disseminate non-aggregated data to public by September 30, 2005. The Czech Republic will have to report part of the IPR 2004 data by June 2006 to the EU EPER system.

Institutional set up

The newly established Czech Agency for Integrated Prevention (IPA) will operate the IPR. The planned IPR Centre under IPA should employ approximately five experts (chemists and information managers) and will be responsible for communications with reporting facilities, handling submissions of the IPR data sets from facilities, checking data for completeness, carrying out some quality control

and assessment processes, and communicating with other stakeholders. The IPR Centre should be to some extent responsible for preparing some tutorial guidelines and training.

The Ministry of the Environment could set up a special technical commission for IPR according to Governmental Decision 63/2003 on the information system for BATs. Such an expert commission could discuss common issues relevant to record keeping and reporting to the IPR such as data quality, monitoring of releases and transfers, sampling methods to be harmonised with the horizontal Best Available Techniques Reference Document (BREF) on monitoring and other sector BREFs. The Technical Commission on IPR should be established by the Ministry of Environment and its members should be nominated by the IP Agency.

The ministry, in cooperation with the IPA IPR Centre should also re-establish the Multi-stakeholder Commission on IPR/PRTR. Such a PRTR commission functioned in 1997-1999 and was established under the Intergovernmental Commission for Chemical Safety. The PRTR commission had 16 meetings to supervise technical studies and pilot projects, and prepare the draft of a separate PRTR act. The establishment of the PRTR Multi-stakeholder Commission is recommended by OECD and UNITAR guidelines and the absence of that body in 2000-2002 was criticized not only by non-governmental organisations (NGOs) but also by industry representatives.

In addition, the NGO PRTR Forum (the Environmental Policy Centre for Europe, Children of the Earth, Society for Sustainable Living) was active in 1997-1999. Other topics such as the Stockholm Convention and natural disasters such as floods are driving forces behind establishing a good Czech PRTR system. A new NGO, ARNICA, is leading a public awareness campaign calling for A Future Without Poisons, where PRTR is one key issue among others, such as eliminating persistent organic pollutants (POPs), accident preparedness, and public participation in IPPC permitting and environmental impact assessment processes. ARNICA recently prepared a petition for establishing a comprehensive list of about 150 pollutants for the PRTR system. This petition was the main political driver for receiving the support of the minister to include NGO experts in the urgent preparation process of IPR technical guidelines. In 2002 and this year the EPCE, with the support of the REC, have offered the ministry their capacity for drafting IPR implementation legislation and to facilitate technical discussions in preparation of the IPR system during 2003. NGO experts and the REC helped the ministry organise seminars on the PRTR protocol in 2002 and also informed Polish and Slovak NGOs as well as governmental experts about the Czech IPPC/IPR Act.

Practical issues

The IPPC/IPR Act 76/2002 Coll. (see enclosure) provides a basic framework for the IPR, which includes:

- system design and components;
- goals and objectives;
- the reporting period;
- facilities obligated to report;
- public accessibility of register; and
- confidentiality.

The technical issues of the IPR system (the reporting format, starting list of pollutants to be reported, reporting thresholds, and quality control) are to be negotiated under the governmental decision on IPR and ministerial decree on IPR record keeping by summer 2003. By April 2003, the negotiation process had become quite intensive in order to reach the legislative deadline of June 30, 2003. Some other issues, such as integrating the IPR with diffuse sources, will be probably developed later in the year.

Czech IPR reporting should be organised by individual chemicals, by facility, according to all releases and transfers to the environment — to the air, land, water, and to off-site treatment and disposal sites. Reporting should also be periodic (annual), in electronic form (and print) and structured with common identifiers (Chemical Abstracts Service (CAS), Standard Industrial Classification (SIC), Standard Nomenclature for Sources of Emissions (NOSE), Selected Nomenclature for Air Pollution (SNAP), geographic coordinates etc.) for entry, organisation, analysis and access through computer database management. It should allow for limited trade secrecy (in the area of integrated permits) and show what types of data can be claimed secret. It is intended for active public dissemination of data. These IPR elements stem from the provisions of the IPPC/IPR Act, but many technical details are not yet decided.

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At the moment the Czech IPR does not include a clear concept of how to link information on diffuse sources and point sources into one more comprehensive PRTR system. Integration of information on pollution from point and diffuse sources will have to be resolved with modern information tools under the Public Information System Act 365/2000. Information on releases from diffuse sources is gathered by various governmental agencies and so the integration of the information into one PRTR system is not now a priority. Reported data elements should reflect the need to collect — through one integrated reporting system (or “information gate”) — not only core IPR data but also some other data requested by integrated permits and some other obligatory data from the media-oriented registers.

The proposal to integrate information from the monitoring of IP and pollutant storage data and toxic product data for the same pollutants is at the moment (April 2003) an issue creating much conflict. It creates risk that due to current time pressure many parts of this proposal will not be incorporated into a binding regulation. At the moment the list of substances is being prepared to cover all substances from the PRTR Protocol (83 pollutants and parameters), about 138 pollutants and groups reported if released to air and about 58 pollutants reported if released to water. This integrated list of about 190 pollutants is currently being discussed within the ministry and reasonable thresholds are being evaluated. The first emission threshold values have been proposed based on current Czech legislation, British values for air and water releases, PRTR protocol thresholds for releases to land, transfer thresholds and manufacture process and use (MPU) thresholds.

Practical discussions on setting the thresholds are to determine:

- whether to report the magnitude of annual releases and transfers theoretically on all facilities above certain MPU and emission thresholds:
- whether each subject (IPPC installation or facility) which has an annual turnover of substances of, for example, 10 tonnes has to report IPR data: and
- whether the IPR system imposes a reporting obligation also according to emission thresholds that are differentiated according to the features of substances (toxicity, persistence and bioaccumulation) and will be set in the range of 0.0001 kg a year for some substances (dioxines).

The Czech law on IPR does not purposely differentiate reporting obligations according to the size of a facility (by the number of employees). Taking the number of employees as a triggering threshold would create the possibility for some facilities to avoid the reporting obligation, for example, by breaking up a large enterprise and establishing smaller fictitious enterprises with numbers of employees below the thresholds.

Common identifiers

Reporting facilities and industry sectors are identified by common systems (industrial classification code, national identification number of the organisation, NOSE-P code, National Classification of Economic Activities [NACE Code], SNAP code, etc.)

Confidentiality

The IPPC/IPR Act gives a polluter no possibility to protect information on a released substance from public disclosure. Other sensitive information (for example, relating to onsite transfers) can be concealed from the public portion of the IPR system if the reporter gives good reason, such as protecting non-patented technology. Confidential business information is generally protected by the Trade Act but its protection is limited regarding the environment, safety and health. The reporter who requests information to be kept confidential sends the IPR Centre all data. If the claim is justified, the center publishes the generic name of pollutant and the identification code of the substance CAS is replaced. Although it is possible to conceal the exact identification of a substance (CAS, name), data on releases and transfers and risk characterisation remain accessible to the public with a generic name. Data concealed in the register are protected according to the same system as data collected under the law on chemical substances.

Data control and validation

The data in the IPR are based on estimations, calculations or measurements of releases and transfers. Measurements are taken by reporters themselves (self-reporting). The quality of data is ensured by several arrangements: unified estimation methods are published for each sector and unified emission factors are created for each technology. Public authorities control report complexity, the use of appropriate methods, accuracy of assessment, etc. The quality of self-reported data is sufficient for comparing releases from various enterprises, for easier risk assessment (called risk screening), for

comparing trends in longer periods and for following the changes in the structure of chemical use and releases. Important external controls of data quality are performed by data users (journalists, consulting firms, NGOs) who compare and use data. The control of the complexity and quality of data acts in principle according to three regimes:

1. real control of data complexity is performed by collecting and compiling data by the IPR Centre;
2. selective control of material correctness is performed by the IPR Centre and environmental inspection; and
3. control of data correctness is performed by users themselves, who may report data which they believe is of questionable quality.

Transparency and involvement of PRTR stakeholders

The IPR consultation process, including the identification and involvement of affected and interested parties and their involvement in design and implementation, was not formally established until recently. Under the pressure of a few NGOs (ARNICA, EPCE) in March 2003 the ministry started to consider establishing a more formal IPR working group. Forming a technical commission for horizontal BREF (BAT Reference Documents of the IPPC Directive) monitoring and probably a separate technical commission for integrated reporting is under consideration as well. Generally, the ministry is responsible for establishing the technical commissions, but practical issues are managed by the IPA. Since April there is a movement to establish the multi-stakeholder forum for the Czech PRTR system by June 2003. Currently (mid-April) only the inter-ministerial expert group with participation of NGOs experts has been working on a regular basis, but in May and June much of the process would be opened to the all stakeholders. The REC is preparing a plan for a more open education process. There are NGO demands that the proposal for the consultation process and participation within the consultation bodies for IPR design should be based on the principles of the Aarhus Convention. There is also a suggestion by NGOs to utilise concrete good practices from countries with fully developed PRTR systems such as the USA, Canada and the UK.

Design of the PRTR system

The process of designing of the IPR should be fully transparent and open for public participation. Generally, everyone should have the right to put forward proposals to modify the IPR system (such as changes in the structure of reported data, changes to the range of reporters, terms, sanctions) to the IPR Centre or to the Ministry of Environment. One NGO has proposed that all collected proposals should be judged by the ministry at least once a year after being discussed in the IPR multi-stakeholder forum and then at the open public hearing. The ministry should make the proposals accessible by the public at least 60 days before the hearings so that people have enough time to get acquainted with them.

Modification of list of pollutants

Anyone should be able to suggest a proposal for modifications of the reported chemicals list to the IPR Centre or to the Ministry of Environment. The reasons for inclusion or exclusion of a pollutant on the register has to be justified in the proposal. The criteria for including a substance in the IPR are the objective toxicological criteria of hazard for health and the environment (persistence, bioaccumulation, toxicity, carcinogenicity, teratogenicity, etc.). This suggestion was discussed several times in the current IPR working group, but the starting list of substances is compiled using a "bottom-up" approach from the internationally binding lists. More objective "top-down" filtration could be used in following years for modification of the IPR list of substances. The harmonised classification of hazardous substances and preparations could be a useful tool for such a top-down selection.

Czech PRTR and Aarhus PRTR Protocol

Generally, almost no gaps were identified regarding the legal and institutional framework of the Czech IPR system and the requirements of the articles of the Aarhus Convention (AC) PRTR Protocol. The IPPC/IPR Act provides a good framework for implementation of the AC PRTR Protocol requirements. The list of substances should be larger than the PRTR protocol to integrate all substances in the current Czech reporting systems on releases. The emission reporting thresholds for the Czech IPR are proposed as lower or equal to those of the PRTR Protocol. Confidentiality is limited and the substitution of information is to be provided by law. By mid-April concrete numbers cannot be shown and many issues are still open. The only new challenge for the Czech IPR system is to present data on releases from diffuse sources. Several laws provide a legislative framework for the collection, evaluation, and estimation of diffuse releases and mandates for governmental authorities (the Czech

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Hydrometeorological Institute, <www.chmi.cz>, the Water Research Institute <www.vuv.cz>) which operate the air pollution registers on mobile sources, small and medium point sources, and water pollution.

Triggering thresholds in the Czech IPR are proposed with values lower than thresholds in the PRTR Protocol. The expert group currently developing the list of substances and setting up the reporting thresholds considered using a combination of MPU thresholds and emission thresholds both for high production volume chemicals (HPVC) and for typical PBT (persistent, bio-accumulative, toxic) polluting by-products released in low quantities (polycyclical aromatic hydrocarbons and POPs, including dioxins). Still open is the possibility for the ministerial working group to establish chemical-specific thresholds for transfers for some heavy metals and some very dangerous PBT substances in waste streams. NGO members of the working group are in favour of waste-specific reporting, but some will probably compromise on the scope of reported substances or delays of chemical-specific transfer reporting will be necessary. Current and future needs and assumptions for successful implementation of the Czech IPR are closely related to the implementation of the Aarhus PRTR Protocol. For example, the starting list of substances for the Czech IPR is proposed to include all PRTR protocol substances (not only the EPER list). Some emission and MPU thresholds are proposed according to the PRTR Protocol.

Conclusions (SWOT points)

Strong points of the Czech IPR system

- Long process of PRTR preparation. Pilot studies (1994-1999);
- Legislation framework of the IPR laid by the modern IPPC act (2002);
- Stable involvement of several Czech NGOs in the preparation process (1994-2003);
- Active position of the Czech Republic in international processes (International Federation of Classification Societies (IFSC), Inter-Organisation Programme for the Sound Management of Chemicals (IOMC), UNECE PRTR Protocol).

Weak points of the Czech IPR process

- Lack of political commitment on PRTR issues, no mandate and funding for a permanent negotiation body, the IPR Agency, in 2000-2002;
- Lack of focused projects to clarify the complicated technical issues of integration;
- Almost no cooperation with environmental inspection and public health experts. Experts on cleaner production need to gain more experience with health risk management and pollution prevention management in the facilities;
- Lack of a political mandate to integrate the fragmented information system on toxic substances (different ministerial media-oriented departments are responsible for horizontal issues of hazardous substances).

Opportunities for the Czech IPR

- By 2003 the IPR register can utilise the concrete results from the negotiation of the PRTR Protocol, which as the "lowest common PRTR denominator," is wider than the EPER.
- Long lasting international technical and political support for the PRTR (UNITAR, UNEP, OECD) helps overcome many misunderstandings and prejudices against PRTR.
- The experience of well-functioning PRTR systems in Europe (Netherlands, Norway and Great Britain) and other countries with the PRTR (USA, Canada, Australia, Mexico, Japan) can be utilised to reduce the cost of mistakes.

Threats to the Czech IPR

- The legislative basis of the IPR as a PRTR (obligatory reporting) within the IPPC Act (integrated permitting) was a pragmatic legislative decision made by the ministry in 1999 and is perceived by some IPPC experts to create complications. If the combination of these two partly different mechanisms is blocked, the IPR system may not simplify processes in all cases.

- There is opposition from current governmental agencies responsible for the Air, Water, Waste, Chemical Substances and Information System to integrate or link their systems together.
- The lack of process coordination in 2000-2002 by the ministry with other stakeholders delayed the negotiation process of the IPR to spring 2003, the time pressure of which could result in a reduction of the structure and scope of the IPR system.
- A lack of comprehensive analysis of EPER, PRTR and national emission and transfers registers (type of data, data availability, data verification, software, etc.) in previous years leaves some technical questions open and complicates implementation.
- Weak involvement of stakeholders from industry, agriculture, health, trade unions, environmental groups etc.
- The risk of implementing all of the particular requirements in the first year or abolishing them completely without seeking a balance between benefits and costs and phasing the implementation step-by-step.
- The lack of an IPR implementation strategy prepared together with all the main stakeholders (reporters to IPR, governmental IPR experts, users of the IPR data).

Recommendation for next steps and measures

Implementation strategy

The particular steps described above should be properly addressed in an IPR implementation strategy to define:

- legal tasks;
- competencies, responsibilities;
- technical tasks;
- timing;
- organisational tasks; and
- communication.

A plan was proposed in autumn 2002 for the preparation and implementation of IPR by the Agency for Integrated Prevention. However, it was not yet accepted by the Ministry of Environment and implemented. The plan suggested the following steps:

1. A comparison of the existing and expected requirements for reporting within IPR and EPER and the existing national emission registers (REZZO - air pollution, HEIS - water, ISO — waste, CHLAP), in order to define the content of the IPR:
 - a) Who — specification of the range of reporters,
 - b) What — definition of the range of reporting duties — static and dynamic data (emissions into the air and water, waste, production and foreign trade of chemicals),
 - c) Thresholds,
 - d) Time periods for data survey (e.g. total annual emissions),
 - e) Means of data survey — monitoring, calculations, estimations,
 - f) Means of reporting,
 - g) Reporting deadlines, and
 - h) Quality control (means of data validation and verification).
2. Identification of the requirements for utilisation of data from the registers (IPR and the existing national registers),
3. Analysing the feasibility of the application of the integrated reporting form,
4. Development of a proposal for functional technical accomplishment,

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5. Analysing the level of functionality of the required flows and data verification,
6. Pilot actions to test the reporting process at selected enterprises (within the pilot projects on integrated permission),
7. SWOT analysis of the proposed system and identification of alternative solutions,
8. Internal and external negotiations of the draft implementation decrees prepared by the Ministry of Environment; finalising the draft implementation decree on the IPR, setting up conditions and responsibilities on the transfers of the data among the registers,
9. Preparation of a training programme and initiating training courses,
10. Application of the selected system and testing in all categories of IPPC facilities,
11. Training and preparatory works for treatment of first reports,
12. Reporting and processing of data for 2004, and
13. Evaluation of the IPR functionability.

The proposed plan included elements of internal and external opponent process and evaluation at certain stages.

Comments on the process of preparation and implementation of the IPR

Based on the analysis of the current gaps in the ongoing implementation of the Czech IPR a draft action plan was proposed by an independent, non-formal group of interested experts (created also within the frame of an REC project) to be used as a base for developing a comprehensive implementation strategy. This proposal will be submitted for comment to the Ministry of Environment at the earliest possible opportunity.

The non-formal REC project group consists of Simona Kosikova-Sulcova (REC project manager), Petr Honskus (industry expert), Roman Vyhnánek (public health and industry expert), Monika Pribylova (IP Agency director) and Ondrej Velek (PRTR advisor). The group has no formal status but will be part of the future multi-stakeholder process and commission.

The draft action plan recommends the following steps and measures to be taken in order to address properly the requirements and needs of the IPR and to be in compliance with the Aarhus PRTR protocol.

1. List of substances

- Determination of substances: based on the requirements of AC PRTR Protocol and taking into account all requirements of the current Czech reporting systems for air, water, waste, and chemicals; EPER; the accepted inputs of the petition “Future Without Poisons,” and providing a justification for the substances selected;
- Analysing the draft list of substances from the point of view of current reporting in force, addressing discrepancies in the lists;
- Setting up thresholds (for environmental media, for transfers, for MPU), using functional foreign systems;
- Proposal of an applicable list and “candidate” lists of substances;
- Proposal of a mechanism for future revisions of the list;
- Process of involvement of technical (experts) and public (the multi-stakeholder consultative forum) consultations with stakeholders regarding the list;
- Defining basic terms (for the government decree);
- Implementing a process of technical and public consultations.

2. Information system

2.1. Process analysis:

- Specification of the range and definition of structures of disposable data flows/inputs, reporters (facilities with registered substances) and the structures of the outputs;
- Adjustment of the model outputs;
- Determination of a technology backup system;
- Determination of the range of the application programme;

2.1. Draft design of alternative IPR systems;

2.2. Process of technical and public consultations on information systems;

2.3. Strategic decisions about the form of the IPR system and assigning tasks:

- Specialised web page on IPR with key documents;
- Internet on-line and off-line reporting software;
- Integrated reporting form and electronic signature;
- Data processing, datawarehouse, sharing data on the governmental intranet;
- System of data verification and validation by agencies, inspection etc;
- System of data dissemination (web, CD) and publicising (environmental yearbooks and reports);
- Proposal for the functional technical means of the IPR Centre to provide special information on request; and
- Analysis of the functionality level of the required flows and data verification.

The strategic decision about the implementation unit will be followed by transferring management responsibilities of practical actions and measures and allocating funds.

3. Awareness raising and training for IPR

3.1. Training of potential IPR reporters

3.2. Training for regional governmental agencies, on environmental inspection, etc.

3.3. An information campaign for the public, public administration, and media introducing the IPR and its uses

Consultations with data users on the requirements on the form of data and publicising information.

It is recommended for consideration, as a part of the process analysis, that the releases and transfers information system consist of the following basic components:

- A special website which includes the database of releases and transfers (possibly with a simple interface which would enable users to access information according to chemical substance, pollution source, end-media, source of pollution localisation, etc.) (The PRTR data should also be accessible on the Geographical Information System (GIS) form);
- An annual report of releases and transfers;
- The extension of the releases and transfers database to departments of environment at district offices;
- Giving information from the releases and transfers on diskettes or CDs to anyone who requests it, at the cost of the diskette or CD;
- Starting the grant competition to spread PRTR data actively (e.g. by regional courses for the public, NGOs, medical staff, etc.);

starting a so-called "green telephone" service where people can ask questions concerning releases and transfers (this service will be free of charge).

4. Overall evaluation of functions of the IPR system

An evaluation will be conducted after the first year of the IPR operation (an assignment of concrete tasks needs to be worked out)

Involvement of the stakeholders

A properly managed process of ongoing discussions and consultations is a crucial component of the successful establishment of the IPR. It is principal in importance in order to reach a proper understanding of the system by all stakeholders and to prevent possible conflicts that may arise within the approval procedure. A specific plan should be developed which determines in what form and at what stage the interested parties can participate in the process. The expert group suggests three main groups of different sizes and mandates to be involved in the process at certain stages:

Internal consultation group

- The Ministry of Environment (Department of Air Protection, Department of Environmental Risks Management, Department of Legislation, Department of Water Protection, Department of Waste Management)
- The Czech Ecological Institute/Agency of Integrated Prevention
- The administrators of current registers and databases (ISO for waste, HEIS for water, REZZO for air)
- The Czech Environmental Inspectorate

External technical (expert) consultations — the multi-stakeholder consultation forum (assigned representatives)

- The Ministry of Environment
- The Czech Ecological Institute/Agency of Integrated Prevention
- Representatives of NGOs
- The Ministry of Industry and Trade, the Ministry of Agriculture
- The Association of Industry and Transport, Chamber of Commerce, other groups and associations
- Regional authorities
- IT experts
- Independent experts

Public discussions (wider open group)

- The Ministry of Environment
- The Czech Ecological Institute/Agency of Integrated Prevention
- NGOs
- Interested firms
- Consultants
- Municipalities
- Natural persons

Poland

This report was written by Marcin Stoczkiewicz.

Status and process of development of a national pollutant release and transfer register in Poland

Current legal framework

A PRTR system is not currently in use in Poland, although there is a number of pollution registers. Some of them have existed for years already (like the most developed reporting system related to fees for environmental use, but most were only recently introduced by new set of legislations, in particular by the Environmental Protection Law of 27 April 2001 (herein after referred to as EPL).

The system of pollution registers in Poland includes both:

- databases concerning ambient quality; and
- facility-based reporting systems created for different purposes.

Databases concerning ambient quality

Databases concerning ambient quality deal separately with air, water, land, noise and electromagnetic fields. Under Article 30 of the EPL and the regulations of the Environment Minister of October 20, 2002 the databases concerning ambient quality, along with some other databases with environmental information, shall be progressively available electronically through public telecommunications networks (Internet). Such ambient quality databases include the following:

- monitoring data on ambient quality collected by the voivode (explained below) on the basis of Articles 88-90 of the EPL. The data are updated regularly as required for particular pollutants (for example — in case of SO₂, NO_x and NO₂ hourly average concentrations are monitored automatically and made available electronically within one hour after the measurement);
- register of information (maintained by the starost) containing information on the areas where quality standards for soil or earth were not met. The register is maintained on the basis of Article 110 of the EPL and must be updated annually;
- register of information (maintained by the voivode) about the areas where the permissible levels of electromagnetic fields in the environment were not met. This register is maintained on the basis of Article 124 of the EPL and must be updated annually;
- monitoring data concerning noise (and acoustic maps) collected by the starost on the basis of Article 118 of the EPL; and
- monitoring data on the quality of rivers, lakes and underground waters collected by regional environmental inspectorates.

Facility based reporting systems concerning pollution

The facility-based reporting systems concerning pollution serve different purposes. One of the most developed is the statistical reporting system. It serves only statistical purposes, however, and none except authorised statistical authorities has access to pollution data concerning individual facilities. Therefore the statistical reporting system can not be considered in the context of PRTR. Only reporting for environmental purposes can be considered in this respect.

The facility reporting for environmental purposes include the following:

1. The reporting system concerning particularly hazardous substances.

Users of such substances are obliged to report to appropriate environmental authorities about of the types, quantities, and places where such substances occur. The register of such substances is compiled by the voivode on the basis of Article 162, section 7 of the EPL. For the time being, as “particularly hazardous substances” are considered only asbestos and PCBs, but the law empowers the environment minister to list other substances as “particularly hazardous” and thus subject to reporting requirements.

2. The reporting system concerning dangerous substances.

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Substances considered to be “dangerous” (following Annex I to the Seveso II Directive) have been listed by the Economy Minister in the regulations of April 9, 2002. Under Article 263 of the EPL, establishments that are considered to be of increased- or high-industrial accident hazard are obliged to report annually to the regional State Fire Service about the types and quantities of such substances. On the basis of Article 267 of the EPL, the regional State Fire Service maintains the register of such reports.

3. The system of self-monitoring, record-keeping and reporting of emissions envisaged in Articles 147-149 of the EPL.

These provisions require the operator of an installation and the user of equipment to conduct periodic measurements of emission levels and to submit the results of the measurements and the monitoring report to environmental authorities responsible for permitting. The system is not in operation yet. The Environment Minister has not issued yet the regulations setting the details concerning the types of emissions and categories of pollutants to be covered.

4. The reporting system related to fees for impacting the environment (in direct translation it is the fee for “using the environment”).

This system is based on Articles 286 and 287 of the EPL as well as Article 36 of the Waste Act. On the basis of these provisions, “users of the environment” that are obliged to pay such environmental fees must provide the voivodeship marshal with the data serving for calculating the amount of fees to be paid. The fees are to be paid for emissions to air, water and land, for disposing waste, and for using some resources (mostly water).

The above reports are available via the system of publicly accessible lists (or records) of data about documents which all environmental authorities are responsible to maintain under Article 19 of the EPL. There is not, as yet, a requirement for such lists (records) to be available electronically.

Neither of the databases or reporting systems described above meets the requirements of PRTR or EPER. Also collectively they do not meet requirements of PRTR or EPER. They all fall under the responsibilities of different authorities. Some of them are related to starosts, who are heads of self-governmental administration of poviats (Poland is divided into about 250 poviats). Some of them are the responsibility of different authorities at the regional level (Poland is divided into 16 regions called voivodships — each of about 1 to 4 million people): either heads of regional self-governmental administration (voivodship marshals) or heads of governmental administration (voivoda).

Despite the fact that under Article 26 of the EPL all the aforementioned databases and reporting systems are meant to be interconnected via the so called State Environmental Monitoring system, in their current form they neither cover enough substances nor are designed sufficiently to fulfil the obligations stemming from EPER or PRTR Protocol.

Poland has made a political commitment to introduce a PRTR system based on OECD model. The policy document called II Environmental Policy — adopted by the Council of Ministers in June 2001 and approved by the Parliament in August 2001 — clearly proclaims in indent 129 that it is necessary to introduce a PRTR system based on OECD Guidelines.

At the same time Poland is under obligation to implement a decision concerning EPER. While the necessary legal framework for implementing the rest of IPPC Directive is all in place and first integrated permits meeting the IPPC Directive requirements have already been issued — there is still no legal framework designed to cater for EPER.

There have not yet been made a final policy decision how to implement obligations concerning PRTR and EPER. Establishing a separate reporting scheme for the purpose seems highly unlikely. More likely is using one of the existing environmental reporting systems. Here either the system of self-monitoring and reporting about emissions under Articles 147-149 of the EPL, or the fee related reporting system under Articles 286 and 287, would be the most obvious candidates.

The government has recently released draft proposals for amendments to the EPL. Some of the proposed amendments seem to be suggesting that both EPER and PRTR will be based in Poland on a fee related reporting system. The proposed amendment (proposed as Article 286a) to the EPL foresees the creation of voivodeship and central databases on the environment for use with the fee related reporting system.

The results of the meeting organised jointly by the ministry of environment, the Regional Environmental Center for Central and Eastern Europe (REC) and the Environmental Law Center (ELC) on March 4, 2003, seem to be confirming that the implementation of PRTR and EPER in Poland would be based on the existing fee related reporting system described above. Several high level officials and experts of relevant departments and agencies of the Ministry of Environment, including the head of the Environmental Policy Department, NGO experts and independent experts from the ELC, REC, Atmoterm (a consulting firm), and other public and private institutions interested in PRTR issues participated in the meeting and discussions.

Bearing in mind the above conclusions and the fact that the fee related system is not only quite developed and up and running for many years in Poland, but also has many features of both PRTR and EPER, the further remarks concerning the situation in Poland relate mainly to the fee related reporting system.

Content of the existing reporting system

The existing reporting systems cover both planned and unforeseen releases to the air, water and soil. Reporting on transfers is required only in relation to waste. For the purpose of reporting there are no definitions of the terms of release and transfer. The terminology used to describe reporting in relation to air, water and waste varies and relates to the relevant laws. Even within these laws the terminology is not very consistent.

Only in the case of waste reporting does the law require precise information about transfers. Facilities are required to report the amount and category of waste generated by month and the quantities recovered, treated and disposed – on-site and off-site.

All the reporting systems cover releases from point sources. It is not clear how and by whom such point sources are to be identified for the purpose of reporting; it is assumed they are identified by the polluters themselves. Diffuse sources are a concern only for the shipment and reloading of petrol, where the methodology for calculating and reporting is based on a type of technical process and on the amount of petrol reloaded or combusted.

Facilities are subject to reporting regardless of their ownership structure. The same applies to private and publicly-owned companies, although some public utilities and smaller point sources which are difficult or impractical to report on (such as schools, hospitals) are released from charging schemes and thus also from reporting requirements.

Basically, reporting schemes are not tied to the regulations on the issue of permits, because facilities are required to report on releases whether they have a permit or not. Moreover, reporting requirements sometimes cover substances which are not subject to permitting. A lack of legal links exists among authorities responsible (separately) for issuing permits, for monitoring compliance and for reporting.

The reporting systems described above are mandatory, but the frequency of reporting slightly differs. Basically reporting related to emissions and waste is quarterly.

Institutional set-up

The agency responsible for setting up and operating the register in Poland presently has no special agency or body dedicated to PRTR issues. The ministry of environment is responsible for implementing both the PRTR and EPER systems, and until recently, preparatory tasks were not assigned to any department. It now seems to be falling within the duties of the Department of Environmental Policy, which is also responsible for introducing the system. Nevertheless, there is no governmental agency assigned to take care of the operational aspects of the PRTR. Because the new system is likely to be based on the existing fee system, it can be assumed that administration organs responsible for the fee system will play an important role in the PRTR. The key organ is the voivodeship marshal. In accordance with the proposed changes to be introduced into the EPL, the voivodeship environmental protection inspectors will keep the voivodeship databases for environmental usage, whereas the central database will be the responsibility of the Minister of Environment.

The responsibility for operating the reporting systems is not so much related to regulatory authorities as to financial matters. The reporting systems have been established solely for the purpose of collecting pollution fees. The division of responsibilities is not clear, however. The voivodeship marshalls are responsible for collecting reports but have neither permitting nor enforcement powers. There are no

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legal links between various reporting systems, and even in practice there is no harmonised, cooperative approach among the agencies responsible for operating the reporting systems.

The existing legal framework does not require any compatibility between different environmental reporting systems and in fact does not provide sufficient means for evaluating their efficiency and accuracy. This heavily influences revenues obtained from charges and fees. Discussions still need to take place on integrating other databases of the future PRTR system and how to achieve this.

Practical Issues

The fee-based system is not only an extension of the system of monitoring emission levels for calculating environmental impact fees. It also has informative functions. Enterprises impacting the environment provide their reports on a quarterly basis, the deadline being the end of the first month of the new quarter for the previous quarter.

The following aspects have to be included in the reports:

- information concerning the quantities and the types of gases or dusts released into the air;
- information concerning the quantity and the quality of surface and ground waters abstracted;
- information on the quality, condition, and composition of wastewater discharged into waters and soil;
- information on the size, type, and use of the area from which the wastewater is discharged; and
- registry documents specified in the Waste Act, which every waste owner is required to have (i.e. the so-called registry card for every separate waste and the collective list of the quantity and types of waste).

The requirement for providing reports applies to a wide range of natural or legal persons. These persons impact the environment according to definitions under Polish provisions. They are the following:

- entrepreneurs;
- persons conducting manufacturing activities in the agriculture sector;
- persons pursuing a medical profession within the framework of individual medical practice;
- other organisational units, i.e. basically any organisation that impacts the environment with the exception of partnership companies; and
- natural persons who impact the environment on the basis of a permit.

The requirement for providing reports covers all facilities used by the entities mentioned above.

The current system does not include reports about separate substances, but rather only concerns the categories of emission.

Reports presented to the voivodeship marshal are publicly accessible on the basis of the general provisions on access to information, and they are included in the so-called lists of documents containing information about the environment. Nevertheless, the planned changes to the EPL which introduce databases for environment usage also contain a proposal to limit public accessibility to only certain chosen public administration bodies. In accordance with proposed Article 286a, section 3, the voivodeship database is accessible to the minister responsible for the environment and to the minister responsible for water management, as well as to the voivode, voivodeship marshal, starost, the heads of the Gmina administration, mayor of the town or city, the statistical office, and organs of the Public Sanitary Inspection. Such drastic restrictions on accessibility to the database are not only contradictory to the basic principles of the PRTR, but, if the proposal is passed, would violate the Aarhus Convention, the European Union (EU) directive on access to information and the Polish legislation implementing them. This issue was discussed at the March 4, 2003 meeting and the conclusion was that it is necessary to develop amendments which would make possible limited confidentiality of the proposed system. It is hoped that the proposal will be changed in this direction during the drafting process and discussions on the act in parliament.

The existing legal framework does not require any compatibility between reporting systems and in fact does not provide sufficient means for evaluating their efficiency and accuracy. This heavily influences

revenues from charges and fees. Therefore efforts were made by some authorities (in cooperation with the consulting firm, Atmoterm) to introduce a more comprehensive system called SOZAT.

For the last year most of the 90,000 enterprises identified in various types of environmental fee databases have been assessed by the unified, multi-level and multi-component environmental management information system SOZAT.

SOZAT is a software system for environmental data management. It gathers and processes data at the enterprise, commune, county and regional levels. All levels are compatible with each other so that data can be exchanged between any levels. SOZAT lists experts and helps with the registration of any type of compound and pollution. The software classifies industrial activities according to Polish as well as European standards allowing for data aggregation and reporting according to selected criteria. The system has been under development by Atmoterm for about 15 years and has been tested in many applications throughout those years.

Today the software is installed in almost all Polish regional environmental administrations. The 500 biggest Polish polluters use it for data management. In 1999 SOZAT environmental data registration forms were successfully distributed to over 50,000 enterprises in Poland. Last quarter most returned them to regional environmental offices filled with data. Almost 5,000 enterprises took part in training courses on environmental data registration which were organised and run by Atmoterm in Poland. This software is used for the current fee-based system and could be the basis of the PRTR reporting system if properly modernised.

Transparency and involvement of stakeholders

The stakeholder involvement process regarding PRTR has been initiated and promoted by various NGOs and the REC in Poland. There has not been an official effort or a plan developed so far for stakeholder involvement within discussions on the development of PRTR in Poland.

From 2001 to 2003, on the initiative of non-governmental organisations (Environmental Law Centre and the Polish Green Network) and the REC, three significant conferences took place in Warsaw with the participation of the Minister of Environment. The first conference was organised by the Polish Green Network, the Environmental Lobbying Support Office and the Environmental Law Centre. The main goal of that meeting was to inform possible future stakeholders about the PRTR concept. A book on PRTR in Polish was published and distributed during the conference. It contains information on the development of PRTR systems in the West; the activities of international organisations promoting PRTR such as the Organisation for Economic Cooperation and Development (OECD) and the United Nations Institute for Training and Research (UNITAR); the features, benefits and uses of PRTR systems; as well as their relation to the Aarhus Convention, EU directives, and the implications of its possible establishment in Poland. In the second conference organised by the REC Polish Office and Environmental Law Centre, government representatives and NGOs discussed the possibilities of introducing the PRTR system into Polish law. Administration representatives of various levels, non-governmental organisations, as well as representatives of industry and science attended the conference. At the last conference, which took place on March 4, 2003, the Ministry of Environment held a consultation forum with other organisations interested in the issue. The representatives of the ministry expressed the need for consulting on the proposals for creating PRTR on the basis of the fee system within the framework of legislative procedure by amending the EPL. It was decided that the proposals of industry representatives and NGOs would be sent to the ministry as well. The Environmental Law Centre will present new, specific proposals for the EPL along the lines of recommendations which emerged from the meeting for proposal in parliament.

Gaps in the legal, institutional framework, and practices compared to the Aarhus PRTR Protocol

Legal gaps

General legal gaps include:

- a lack of legally binding provisions focused especially on PRTR;
- a lack of complexity;
- different regulations for every medium;
- a lack of data comparability;

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- a lack of a coordination centre for the entire country; and
- a lack of clear rules for collecting data.

Institutional gaps

General institutional gaps include:

- a lack of a special responsible agency; and
- that the responsibility for operating the reporting systems is not so much related to the regulatory authorities but rather foremost to financial matters.

Practical gaps

General practical gaps include:

- the system does not contain reports about separate substances, but only the emission categories;
- the planned changes to the EPL that introduce databases for environment usage also contain a proposal to limit public accessibility to only certain select public administration bodies;
- the existing legal framework does not require any compatibility between reporting systems and in fact does not provide sufficient means for evaluating their efficiency and accuracy.

Specific gaps

Bearing in mind that the PRTR in Poland will be based on the fee system, some important drawbacks need to be eliminated in order to adjust the Polish fee system to EPER and PRTR requirements.

The fee system and EPER

The adjustment of the system to EPER would require:

- ensuring that fees will be imposed on the same substances (released into the air and water) as those which Poland will have to report on to the European Commission on the basis of the decision on EPER. It may turn out that some substances mentioned in the decision are not subject to fees, and that factories do not have to report on them. Therefore, including these substances in the register would either require including them in the fee system (which does not seem to be a good solution since entrepreneurs were not previously required to pay for them and makes introducing a fee connected to EPER seem unjustifiable) or creating a separate requirement for providing reports on substances included in EPER but which are not subject to the fee system. This second solution would require changing the law.
- making the voivodeship marshalls (or some other bodies) which receive reports from companies responsible for proper data processing (creating databases) and transferring these databases to the central body that would be responsible for submitting the reports to the European Commission. The project amending the EPL includes the necessary provisions for this. The project states that companies would be required to submit the same information to the marshal and the voivodeship environmental protection inspector at the same time. The voivodeship environmental protection inspector would also be required to process the information, draw up voivodeship reports, and submit them – via the Chief Inspectorate for Environmental Protection – to the minister of environment.

The fee system and the PRTR

Point one of the remarks presented above concerning the fee system in the EPER system is also valid in relation to the PRTR. The following issues also need to be taken into consideration:

- the greater quantity of substances (86 instead of 50) as required in Annex II of the United Nations Economic Commission for Europe (UNECE) Protocol on the PRTR;
- the fact that PRTR also concerns the release of waste into soil (even though the Polish fee system also includes the release of waste into the soil), it does not seem to be necessary to include in the reports the substances released into the soil mentioned in the protocol; and
- making sure that the central and voivodeship databases will be publicly accessible.

Current and future needs

The basic problem in Poland is that there is no clear division of powers and responsibilities among the various governmental agencies in relation to managing chemical substances. It is partially a responsibility of the Ministry of Economy (which is responsible for management of chemicals) and the Ministry of Environment (which has overall responsibility for environmental matters).

Poland's well-developed reporting systems may be beneficial for developing a PRTR system, but they may also provide an obstacle. The biggest advantage is that facilities are already used to the reporting systems and burdens related to periodical (quarterly) reporting is nothing new. Moreover, there are well developed software programs that allow systematic collection and processing of data in order to provide a comprehensive information database sorted by facility, pollutant or geographical location.

Linking reporting systems with fee reporting schemes provides clear advantages to various public entities. Regional administrations, which are responsible for collecting information to increase their revenues, are interested in developing reliable and efficient reporting systems. Environmental funds and local authorities, to which the money from pollution fees are eventually channelled, should also support the idea. The same should apply to the Environmental Inspectorate, which is principally responsible for monitoring compliance and for enforcement of environmental standards, and should theoretically also be interested in developing a PRTR system. On the other hand, the existing reporting systems were not designed for the purpose of making information available for the public.

Facilities may also have mixed feelings about the PRTR being built upon the existing reporting systems. More effective and accurate data collection may result in higher fees. On the other hand, a comprehensive approach may result in cost savings in the long run.

Recommendations for further steps and measures needed for developing a national pollutant release and transfer register

Apart from the issues mentioned above concerning the direction of PRTR development in Poland, it also seems necessary to integrate into this system the other registers and lists which have environmental protection functions in order to ensure complexity, comparability of data, centralised coordination and clear rules for data collection. It should be organised on the basis of the existing fee reporting system.

We recommend the following steps, which should be introduced by amending the Environmental Protection Law, to establish a PRTR system in Poland:

1. Ensure that fees will be imposed on the same substances (released into the air and water) as those which Poland will have to report on to the European Commission on the basis of EPER.
2. Make the voivodeship marshalls (or some other bodies) recipients of reports from companies responsible for proper data processing (creating databases) and transferring these databases to the central body that would be responsible for submitting the reports to the European Commission
3. Increase the quantity of reported substances (86 instead of 50);
4. Ensure that the central and voivodeship databases will be publicly accessible.

To develop a PRTR system in Poland, concerted action is needed. First of all, knowledge about PRTR has to be increased, and on that basis, the beneficial effects of the PRTR should be communicated through an information campaign. It should be aimed at a small group of key people among various stakeholders (the national government, regional administrations, parliament, industry representatives and NGOs) and at the media and the public at large.

Part III: Summary Conclusions

Some accession countries have shown an early interest in developing national PRTRs and actively participated in the initiative under the Aarhus Convention to develop a legally-binding international PRTR instrument. The Czech Republic took the lead and chaired the UNECE Working Group. Poland and to some extent Hungary also showed initiative early on. Other accession countries (Bulgaria, Slovenia, Slovakia and Romania) followed the protocol negotiations but did not participate actively and were not always present. Some did not participate at all due to lack of capacity and the workload of the EU accession process. Hungary started internal discussions in an inter-ministerial working group on establishing a PRTR system in 2000-2001, but in 2002 it decided to focus first on the establishment of EPER system and follow the EU countries regarding PRTR development. Recently, because of the PRTR Protocol, REC PRTR pilot projects and pressures from citizen groups, Poland has shown an interest in developing a PRTR based on a system of fee collection for the use of natural resources. Bulgaria joined the PRTR efforts as well in 2003 through discussions on the possibility of building the UNECE PRTR Protocol on the implementation of the IPPC Directive.

Although now that the PRTR Protocol has integrated and accommodated the requirements of the EU's EPER system, each accession country has the opportunity to follow the path of establishing a system based on EPER requirements and gradually building up a more comprehensive PRTR system. The common direction of implementation of the PRTR Protocol can provide good guidance for the establishment of the minimum requirements of a fully integrated PRTR for the accession countries and will also help spread experience and expertise from those countries which have more mature PRTR systems within and outside the EU. Significant international experience on PRTR has accumulated in the past decade among the international organisations OECD, IOMC, UNITAR, UNEP Chemicals. Their experiences can and should be utilised when looking at how the protocol could be implemented in practice.

A few common problems, issues and conclusions emerge from the discussions on establishing national PRTR systems, the progress and plans of Bulgaria, the Czech Republic and Poland and the regional workshop organised by the REC within the current PRTR project.

Legislative framework

Development of legislation on chemical safety and community right to know

The process of accession and approximation of legislation with the EU *acquis communautaire* has provided a major push in the development of national environmental legislation. A significant part of the current domestic legislation in the accession countries is a direct result of the transposition of the various EU Directives. The approximation process has been a major incentive to developing contemporary environmental norms and introducing relevant standards. The process has however been flawed to a certain degree: it transposed norms and standards developed from outside the accession countries on the basis of the needs and priorities of the current member states. While for the most part relevant to the accession countries, these standards do not completely reflect all domestic priorities. Some former national priorities were set aside by legislatures overburdened with the approximation process and because environmental authorities were overwhelmed by the magnitude of the transposition process.

The regulation of chemical safety and community "right to know" has been affected in this regard as well. The process initiated under the transposition of the EU Directive on Integrated Pollution Prevention and Control (IPPC) was a stimulus for most of the current domestic permitting regulations and self-monitoring requirements for industry. Most of the current first-round accession countries have started the transposition and implementation of the IPPC Directive and are also more or less prepared to set up and operate their reporting systems based on the EPER. Due to the pressure of the EU approximation, many accession countries focused on accomplishing the minimum requirements of harmonisation and could or did not want to be engaged in a broader process of encompassing the IPPC Directive, EPER and at the same time follow the OECD PRTR approach for which they had shown interest in the 1990s. The regulations which have been or which are being prepared, however, do not necessarily include some of the chemicals that otherwise would be on the national priority list. The

non-integrated approach to environmental media has also left out the issue of wastes from the scope of publicly accessible domestic registers in several countries.

Once the approximation process is finalised and the implementation of the new legislation begins, the current flaws and gaps in terms of national needs and priorities are bound to surface and trigger further revisions and modifications. It would however be efficient to accommodate such needs and priorities already in the first steps of legislative development. The implementation of the PRTR Protocol at this stage might facilitate the revision process and help to accommodate both national priorities not yet reflected in the chemical safety legislation and the need for “one-stop shop” access to information.

Institutional framework and practical issues

One problem mentioned often relates to the lack of coordination and concordance of analysis of all the existing obligations within the scope of the protocol and other instruments or EU directives (e.g. IPPC Directive implementation, EPER, various conventions and international treaties setting certain standards and methods, domestic legislation that had regulated these matters until recently, and other instruments).

In all of the countries, several different data collection and processing methods are used under national and international law. However due to the lack of coordination and gaps in information flow, the information collected for different purposes is not integrated and not made easily accessible. A clear analysis of existing legal obligations, institutional needs and ongoing practical arrangements is needed at the national level in each of the countries in order to implement such obligations in the most efficient way possible. The implementation of the protocol can provide an excellent framework for such analysis.

Coordination of information flow

The main challenge in setting up national PRTRs at the moment seems to be related to the coordination of information flow and the sharing of responsibilities among the various national (and sometimes local) agencies and institutions involved. The information on emissions from facilities is currently collected by many agencies including ministries of environment, water, health, statistics, industry, and in some cases by local or regional authorities. This data collection is often done based on different methodologies, resulting occasionally in inconsistencies and even duplicated reporting. This does not only impair the public access to information, but it also affects the sharing of information among and within the agencies themselves. Streamlining this process and designating a single responsible authority would not only improve access to information but would also relieve industry of some of the burdens of reporting and self-monitoring.

Designation of a responsible authority

Designation of a single authority responsible for collection, processing and publishing the information on emissions from individual facilities is a crucial matter in setting up integrated registers. This will first of all ensure consistency of both methodologies and techniques of estimation and calculation for self-monitoring and reporting from facilities as well as information processing and verification techniques on the side of the authorities. In light of some countries' current problems with confidentiality of statistical information (see below), it is essential that such an institutional arrangement involves environmental rather than statistical bodies. It is also essential that this process takes into account the coordination of information and data on diffuse sources.

Unified methodologies, setting up the thresholds

In light of the above, the development of unified methodologies on the national level is very important. This process should be based as much as possible on existing international methods and techniques. These should however be – wherever needed – adapted to the national priorities and needs. The same is true for the process of setting up national thresholds and common identifiers.

Data control and validation

Concerns regarding the quality of the data collected and entered into databases were voiced very strongly both in the negotiation of the protocol as well as in the regional workshops on the topic. These concerns reflect existing problems with the quality of reported information and a lack of capacity of authorities to verify the reported data and enforce its accuracy and consistency.

The first matter to be considered is that under the reporting obligations according to the protocol and other existing international norms and acts, it is crucial that information be timely. This in itself precludes heavy monitoring for the purpose of verification, at least with regard to the information reported to the register. Such verification of data should be ensured rather through consistent methodologies of estimations, calculations and measurements of releases and transfers, such as sector-based, unified estimation methods and factors. What might prove even more crucial in the pilot stage of the PRTR system implementation are enforcement measures and powers of the authorities, and even more so incentives for industry self-reporting.

Data on emissions from the diffuse sources.

While there is usually some information on estimated emissions from diffuse sources collected in most of the countries, it still remains to be seen whether most of them will include such reporting in the first stage of the protocol implementation. One of the main problems with the collection of information on diffuse sources is related to the previously mentioned disintegration of information collection and processing by various agencies. Another problem is related to the methodological integration of data that exist into databases designed primarily for reporting on individual facilities.

Confidentiality

One of the main issues raised often in discussions on access to information on emissions is the protection of facilities' commercial interests. Decision makers need clear criteria and guidelines on verifying confidentiality claims. A lack of such criteria and guidance may lead to misuse or abuse of confidentiality claims.

In some countries confidentiality is triggered for most of the reported information on emissions, because the information is collected and processed by statistical agencies. To ensure the accuracy of statistical data, the laws on statistics require strict classification of any information reported by individual facilities to the institutions for statistical purposes. Where emissions information is reported only or primarily to the statistics bodies, the confidentiality of information from individual facilities prevents any public access to information on emissions. If any such access is to be ensured in future, designating environmental authorities as data custodians would be required, as well as clearly communicating that the primary purpose for collecting such information is chemical safety and the public's right to know.

Public accessibility

Public accessibility of the information on releases and transfers is a fundamental feature of the PRTR system. Although most countries' databases are currently accessible except for data which is claimed confidential (see above), they are still often not kept in electronic form. The PRTR system set up needs to be designed to be searchable according to separate parameters, (facility, pollutant, location, medium, geographic information, etc.) and to be accessible via the Internet free of charge. There is also still a need to provide paper copies of reports upon request and summaries of annual reports.

Since many countries' public registers, public information centres, services established in various governmental agencies, and public access points have been established, it is possible to build on this existing infrastructure and to consider establishing new ones according to the appropriate needs. The different databases containing the PRTR information are sometimes not physically located in one place, but can be linked with each other electronically as well as with other databases which contain relevant public right to know information.

Stakeholder involvement, public participation

Although most countries have examples of public participation or stakeholder involvement in developing environmental policies, plans, programs, and legislation; there are only a few examples of stakeholder involvement and public (NGO) participation in discussions on establishing PRTR systems in various forms of formal or informal governmental or inter-governmental working groups. The PRTR may require some specific expertise, and it is not always easy to identify which NGOs or stakeholders should participate, but important benefits emerge if a process of stakeholder involvement and public participation is designed and integrated throughout PRTR development.

Learning from the methodologies of international organisations such as OECD and UNITAR, as well as from national experiences, the table below — Elements of the process of PRTR development for national PRTRs⁶ — recommends steps for developing national PRTRs in accession countries in harmony with the PRTR Protocol. When designing strategies, stakeholder involvement should be prepared and implemented into each step.

Elements of the process of PRTR development for national PRTRs

Steps	Strategies/how to	Obstacles
<i>Securing political will</i>	Signing of the protocol Commitment to implementation of the IPPC Directive Emissions Trading Directive can be used	Lobbying for minimum EPER levels Overloaded political agendas
<i>Adding PRTR development to the priority list (under national environmental strategy, etc.)</i>	Lobbying And/or demonstrated commitment from various stakeholders Externally driven pilot projects as stimulus	Lack of human resources in the ministries of environment
<i>Identification of the responsible agency and nomination of the national coordinator within the agency</i>	Nomination of national coordinator (NC) To ensure continuity, link the NC to the position, not the person	Overloaded officials Political inertia Personal changes in the authorities
<i>Strategic multi-stakeholder planning process (e.g. UNITAR, OECD methodology)⁷</i>		
<i>Setting up a national coordinating body (NCB)</i>	define a clear timetable and identify tasks for the NCB and individual members (have a strong enforcement procedure for both the timeline and task performance) make the NCB an official body NC to establish contact with NGOs in the field Approach a lot of NGOs, not only one or the most known Use existing NGO	Lack of clear procedures for nominating representatives of other stakeholders NGO representative selection difficulties

⁶ These proposals are results of the regional workshop discussions organised at the REC, on March 24-25, 2003 in Szentendre, Hungary.

⁷ In the steps described below we have relied on elements included in the presentation of Jorge Ocana of UNITAR at the mentioned REC workshop.

PART III: SUMMARY CONCLUSIONS

Steps	Strategies/how to	Obstacles
	<p>fora/community (if they exist)</p> <p>Link with all the existing working groups and committees</p>	
<i>Setting up the goals of the national PRTR system</i>	<p>Identify major sources of releases</p> <p>Identify geographic areas of concern</p> <p>Discuss and decide on priorities for the country</p>	
<i>Identifying the benefits</i>	<p>Cost benefit analysis of setting up the system (World Wildlife Fund and UNECE studies available)</p>	<p>Lack of methodology for cost benefit analysis</p> <p>Lack of consistency in methodologies</p>
<p><i>Concordance analysis vis-a-vis the UNECE PRTR Protocol:</i></p> <p><i>Legislation</i></p> <p><i>Existing reporting obligations</i></p> <p><i>Existing databases</i></p> <p><i>Methodologies</i></p> <p><i>Other?</i></p>	<p>Assessing existing legal, institutional framework and existing obligations/databases and identify gaps</p> <p>Proposal for changes or amendments needed in legislation</p> <p>Proposals for institutional framework/authority to host the register</p> <p>Proposals for the scope and practical aspects of operating the register</p>	
<i>Designing key features in accordance with the PRTR Protocol</i>	<p>Define the scope</p> <p>Address legal/institutional implementation</p> <p>Develop data collection and management procedures</p> <p>Develop data analysis and dissemination procedures</p> <p>Give special attention to the key features of Aarhus PRTR including public accessibility, limited confidentiality, public participation mechanisms in the development and modification of the system</p> <p>Conduct a PRTR reporting trial</p>	
<i>Finalising national PRTR proposal</i>	<p>Finalise and adopt the national PRTR proposal</p> <p>Develop an implementation action plan</p> <p>Organise a National PRTR implementation workshop to secure policy commitment, to launch an implementation action</p>	

Steps	Strategies/how to	Obstacles
	plan and to bring stakeholders together for discussion	
<i>Raising awareness</i>	Information campaign for the public, public administration, and media introducing the register and its benefits and uses	
<i>Capacity building</i>	<p>Training/capacity building of potential reporters</p> <p>Training for experts of national/regional governmental agencies</p> <p>Consultations with data users on the requirements on the form of data and publicising information.</p>	