

**Building Capacity for Environmental Monitoring
and Reporting by Enterprises and Public Authorities in
Eastern Europe, Caucasus and Central Asia (EECCA) and
Western Balkan countries**

A Concept Proposal

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**Prepared by the Aarhus Convention Secretariat with the assistance of the Regional
Environmental Center for Central and Eastern Europe (REC)**

**Under the auspices of the United Nations Economic Commission for Europe
(UNECE) Working Group on Pollutant Release and Transfer Registers to the
Convention on Access to Information, Public Participation in Decision-making and
Access to Justice in Environmental Matters**

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Introduction

1. The Environment and Security (ENVSEC) Initiative provides a framework for cooperation on environmental issues across borders to promote peace, stability and sustainable development. It recognizes that joint efforts to improve the state and management of natural resources can build confidence among community and national stakeholders, address environmental risks at their source and, ultimately, support the prevention of conflicts. The United Nations Development Programme (UNDP), United Nations Environment Programme (UNEP), Organization for Security and Co-operation in Europe (OSCE), North Atlantic Treaty Organization (NATO), UNECE and the Regional Environmental Center for Central and Eastern Europe (REC) have joined forces in the ENVSEC Initiative to offer countries their combined pool of expertise and resources to address the links between the natural environment and human security.

2. In Eastern Europe, the Caucasus and Central Asia (EECCA) and the Western Balkan countries, the sustainable use of natural resources and protection of human and ecological health are threatened by high pollution levels which contribute to regional insecurity. In Central Asia, ENVSEC has identified existing or potential pollution from industrial facilities, hazardous and radioactive waste sites as one of three main groups of issues relevant to environment and security in the Ferghana Valley, home to 20 percent of Central Asia's population.¹ In the South Caucasus, across the industrial centres and capital cities, respiratory and cardiovascular diseases linked to environmental pollution are issues of significant concern.² In Ukraine, pollution discharged into surface waters is severe and underground waters are threatened by infiltration from industrial facilities.³ Pollution from factories has been identified as having the largest impact on the health of the Black Sea.⁴ Substantial improvements in environmental monitoring and data collection are needed in Eastern Europe, Caucasus and Central Asia (EECCA) to address the problems of local and transboundary pollution in the region.⁵

3. Improvements in controlling pollution in EECCA countries, in particular in air emissions, water discharges and waste management, will be difficult to achieve without the commitment and cooperation of enterprises. These include facilities and installations that are obliged to collect data and report on their environmental impact and their compliance with environmental permits and standards to the public authorities, as well as those which would be obliged to collect and report as part of national implementation of the UNECE Protocol on Pollutant Release and Transfer Registers.

4. In the Western Balkan countries of Albania, Bosnia and Herzegovina, Croatia, the Former Yugoslav Republic of Macedonia, Montenegro, Serbia, and the United Nations Administered Territory of Kosovo within Serbia (the Western Balkans), the past decade of war, conflict and transition has left the region with a legacy of inadequate growth,

declining living standards and high environmental stress. The region is mainly affected by heavy industrial pollution in urban-industrial areas, intensive agriculture with yet uncalculated health impacts, a lack of water technology and infrastructure, and industrial pollution. Mining in the Western Balkans has been identified as a sector requiring specific attention, and is the focus of several regional cooperation projects. There have been some improvements and the level of pollution has decreased in some sectors due to the transition to market economy, as some industrial facilities have been or are undergoing modernization, others have been closed or operate with limited capacity. Despite this, there are still significant numbers of hotspots and shared resources pose both a challenge and opportunity for cooperation.

5. In recent years, significant progress has been made regarding the development of new legislation, and amendment of existing legislation to meet the requirements of the Aarhus Convention, and due to the accession process, the requirements of the relevant EU directives. There have also been steps made to prepare for the establishment of PRTRs and for the future ratification and implementation of the PRTR Protocol. To this end, the first assessments of gaps and needs as well as of action plans have been discussed/approved and are being implemented.⁶

The Kiev Protocol on Pollutant Release and Transfer Registers

6. In recognition of the need to engage key components of industrial and other economic sectors, under the auspices of the UNECE the Parties to the Aarhus Convention⁷ negotiated the Kiev Protocol on Pollutant Release and Transfer Registers (PRTRs). The Kiev Protocol on PRTRs is the first legally binding international instrument on pollutant release and transfer registers. It was adopted at an extraordinary meeting of the Parties to the Aarhus Convention on 21 May 2003 during the Kiev Ministerial Conference “Environment for Europe”. To date, 37 States and the European Community are Signatories.⁸ Three Signatories – Luxembourg, Switzerland and the European Community – have formally ratified the Protocol.⁹

7. A pollutant release and transfer register (PRTR) is an inventory of pollutant release, (emissions or discharges) and transfers from industrial sites and other sources. PRTRs contain information on releases from specific industrial sites of certain pollutants to air, land and water considered to pose the most significant threats to environment or health. PRTRs also contain information on waste that is transferred from one facility to a waste disposal site or recovery facility. PRTRs may also contain information on pollution from traffic to air, from agriculture to water and from small polluting enterprises to land, water or air. The development of national PRTRs need to be harmonized with the requirements of European PRTR.

8. Under the Kiev Protocol, facilities will be required to report annually on their releases (into the environment) and transfers of certain pollutants. This information will be placed on a public register, known as a pollutant release and transfer register or PRTR.

The records held in PRTRs can be searched through the Internet and may also be available in published reports for specific information related to companies, geographical location or pollutants.

9. Such registers facilitate public participation in decision-making and contribute to the prevention and reduction of environmental pollution, not least by making enterprises aware of the potential environmental impacts of their production and release of listed chemicals and waste disposal activities. They are open to inspection by any citizen or resident without regard to his or her place of domicile, and thus can be used to promote transboundary review of and cooperation on pollution prevention initiatives.

10. The Kiev Protocol has attracted strong interest among representatives of civil society, scientific and business organizations and government in the EECCA region.¹⁰ Among EECCA countries, Armenia, Georgia, Republic of Moldova, Tajikistan and Ukraine are Signatories to the Kiev Protocol and others have expressed interest in acceding to the instrument.¹¹ Among the non-EU accession countries of South Eastern Europe, Bosnia and Herzegovina, Croatia, Serbia and Montenegro,¹² and The Former Yugoslav Republic of Macedonia have signed the agreement.

The Need for Strengthening Environmental Monitoring and Reporting by Enterprises and Public Authorities

11. The Kiev Protocol on PRTRs sets strict deadlines for performance of its obligations. In spite of widespread interest and support, no EECCA State appears to be in a position to ratify and implement the Protocol at this time. Some public authorities and enterprises may lack awareness, incentives, and technical ability and infrastructure to implement the monitoring and reporting requirements of PRTR systems. Strengthening enterprise environmental monitoring and reporting will be needed to prepare enterprises to comply with the national reporting obligations in conformity with the Protocol's requirements. Training workshops for environmental personnel of reporting facilities will need to be organized to overcome capacity deficits. Communication and coordination also need to be strengthened among authorities responsible for monitoring pollutant releases and transfers. Systems for communicating PRTR information to the public further will need to be established.

12. Strengthening monitoring and reporting is expected to bring benefits to enterprises in the form of improved environmental management and performance. It also will help to improve data collection in order to produce national state-of-the-environment reports and other assessments for decision-making, in support of the overall objectives of the Aarhus Convention and other multilateral environmental agreements. Furthermore, it will facilitate environmental reporting to the international community and promote the sharing of information across boundaries, providing a common platform upon which transboundary pollution reduction initiatives can be built.¹³ And, most significantly, increasing the quantity of environmental information produced by enterprises and public authorities, improving the quality of this information and enhancing access to it by the

general public will help to exert significant pressure on polluters to reduce their pollution loads and mitigate harm to natural resources and human health across the region.

Framework Programme on Capacity-building for Pollutant Release and Transfer Registers

13. UNECE, UNEP, UNITAR and the REC have jointly developed a framework programme on regional, sub-regional and national PRTR capacity building aimed at EECCA countries.¹⁴ The framework programme could also involve other international bodies and experts in liaison with inter-governmental agencies, international experts and academic institutions.

14. Among the proposed sub-regional and national activities of the framework programme are the following:

- (a) Workshops on legal, institutional and/or technical themes related to the Protocol's implementation;
- (b) Study tours bringing experts from countries developing PRTRs to countries with operational PRTRs to share experience and expertise;
- (c) Training programmes on legal, institutional and/or technical aspects of developing a pilot PRTR;
- (d) Assessment of existing reporting systems in comparison with the Protocol on PRTRs and good practice models;
- (e) Identification of needs/priorities to develop legislative and institutional frameworks for PRTRs;
- (f) Development of strategies on establishing national PRTR systems, in cooperation with relevant government agencies, NGOs, and other stakeholders; and
- (g) Public education to promote understanding of the benefits and use of PRTR systems.¹⁵

15. Within the context provided by the framework programme, it is proposed to develop the project Building Capacity for Environmental Monitoring and Reporting by Enterprises and Public Authorities in EECCA and Western Balkan countries under the ENVSEC Initiative. The project would engage public authorities, public and private sector enterprise management, civil society organizations and other stakeholders in building capacity for environmental monitoring and reporting in the region. The project would be collaboratively managed through the agreement of the implementing partners.

Project goals, activities and expected results

A. Goals

16. The major goals of the Building Capacity for Environmental Monitoring and Reporting by Enterprises and Public Authorities in EECCA and Western Balkan countries project are to:

- (a) Engender trust between public authorities, industry and the public;
- (b) Promote commitment by the general management of industries to local and transboundary environmental issues and community concerns; and
- (c) Provide guidance for environmental data collection by enterprises for PRTR reporting purposes¹⁶ and for management of the resulting databases by relevant public authorities in order to
 - (i) Support chemical management decision-making;
 - (ii) Support the establishment by competent public authorities of national registers;
 - (iii) Facilitate public access to information resulting from enterprise environmental monitoring; and
 - (iv) Improve reporting and information flow to neighbouring communities and the international community.
- (d) To further support government agencies in EECCA and SEE in the preparations for establishing functioning PRTRs and for the ratification of PRTR Protocol through:
 - (i) Carrying out the necessary legislative and institutional changes
 - (ii) To nominate the competent agency and create the national bodies (working groups) for coordination of the PRTR process;
 - (iii) Assist in the technical part of establishment of the PRTR;
 - (iv) Assist in implementation of stakeholder involvement in the development and implementation of the PRTR system;
 - (v) Build the capacities of officials at national and regional level, as well as businesses, and NGOs; and
 - (vi) Raise awareness about the need and use of the PRTRs.

B. Project-specific activities

17. The project envisages the launch of four sub-regional training programmes for enterprises, public authorities and qualified civil society organizations on legal, institutional and/or technical aspects of developing a pilot PRTR. The specific activities to be carried out in the project are the following:

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- (a) Sub-regional workshops – Three sub-regional workshops on enterprise monitoring and reporting and the PRTR Protocol will be held in Ukraine (Eastern Europe); Georgia and/or Armenia (Caucasus); and Tajikistan (Central Asia). Each workshop would aim to build enterprise, Government and stakeholder capacity to fulfil PRTR monitoring and reporting requirements as part of national strategies to prepare for ratification and implementation of the Protocol on PRTRs;
- (b) Study tours – Three study tours will be organized bringing national experts to countries with operational PRTRs to share experience and expertise. Belgium, Czech Republic, Denmark, France, Germany, Netherlands, Norway, Sweden or United Kingdom may be invited to serve as potential host countries;¹⁷
- (c) Outreach materials – Preparation of Russian-language educational materials targeting key stakeholders. Such materials will be prepared in consultation with enterprise management, NGOs, media and other independent experts. They will include both distributed publications and electronic materials available through the Internet via the UNITAR Virtual Classroom on PRTRs.¹⁸
- (d) Carrying out pilot projects in designated areas or sectors;
- (e) Designing the national PRTR systems following step by step approach;

Western Balkans

- (f) Involving national and as needed foreign experts and consultants in developing the necessary legislative changes;
- (g) Assisting in developing/finalizing the lists of pollutants and activities including thresholds as well as the list of facilities to report;
- (h) Assisting in preparing the reporting format and in preparing the authorities as well as the facilities for the reporting requirements and self-monitoring through trainings in order to provide better quality data;
- (i) Organizing capacity building workshops at national level for authorities, operators and NGOs;
- (j) Organizing three regional capacity building workshops to share experience and jointly discuss/evaluate the progress;
- (k) Organizing regular meetings/discussions with the involvement of relevant stakeholders on the issues necessary for the development of the PRTR;

- (l) To Prepare national language guidance materials for officials, businesses to enable them to prepare for the implementation of their tasks and obligations as well as brochures for NGOs about the benefits and use of PRTRs as well as their involvement;
- (m) To carry out pilot projects in designated areas or sectors;
- (n) To carry out public awareness activities about the PRTRs for the broader public including websites; and
- (o) To prepare for ratification including developing the necessary documents.

C. Term

18. The initial phase of the project will extend over 24 months. The sub-regional training programmes would extend beyond this term according to need and the availability of resources.

D. Co-funding

19. Co-funding should be sought from the Strategic Approach for International Chemicals Management (SAICM) Quick Start Programme, Global Environment Facility and other donors.

E. Expected results

20. The expected results of the project are to
- (a) Strengthen capacities of enterprises, governments and NGOs for understanding and developing PRTRs;
 - (b) Augment management responsibility for regulatory compliance and the prevention and reduction of adverse impacts of pollutant releases and waste transfers on the environment;
 - (c) Promote understanding among enterprise management of the effects of the company's environmental performance on profitability, market value, and investment decisions;
 - (d) Engender socially responsible behaviour by enterprises especially in the environmental field;

- (e) Increase public access to information and public assessment of enterprise environmental performance;
- (f) Foster pilot projects in selected enterprises or sectors resulting in progress towards developing national or regional PRTR systems; and
- (g) Establish national PRTRs in EECCA and Western Balkan countries
- (h) Make progress in EECCA and Western Balkan countries and establish national PRTRs and ratify/ start implementing the PRTR Protocol.

F. Guidance on selection of enterprises and elements for training

21. The Kiev Protocol on PRTRs and the guidance to its implementation¹⁹ provide guidance regarding the range of enterprises that should be subject to environmental monitoring and regarding the parameters to be monitored. The Guidance for the implementation of the European PRTR can also be helpful in determining the list of components to be monitored in different sectors.²⁰ The UNECE Committee on Environmental Policy has recently approved and transmitted to the upcoming Ministerial Conference "Environment for Europe" in Belgrade the *Guidelines for Strengthening Environmental Monitoring and Reporting by Enterprises*²¹ prepared by the UNECE Working Group on Environmental Monitoring and Assessment in cooperation with its partners. These guidelines provide practical recommendations to government bodies at the national and sub-national levels responsible for environmental policy, environmental monitoring and compliance monitoring, and statistical agencies, as well as to enterprise management and environmental citizens' organizations in Eastern Europe, Caucasus and Central Asia.

G. Participating organizations and management structure

22. The principal capacity-building partners involved in the project – UNECE, UNEP, UNITAR and the REC – have extensive international experience assisting with development of PRTR systems, both within and beyond the UNECE region.

23. The following additional regional or national organizations have either contributed to elements of this concept proposal or expressed interest in participating in the framework programme on PRTR capacity-building: UNEP DEWA/GRID-Europe, UNEP/GRID-Arendal, Regional Environmental Center for Central Asia (Kazakhstan), European ECO-Forum, and the Aarhus Center – Dushanbe (Tajikistan), Centre for Sustainable Production and Consumption (Kazakhstan), Georgian Environmental and Biological Monitoring Association (Georgia), NGO "Team for Nature Protection" (Tajikistan), Working Group on PRTRs (Tajikistan), Environmental News Agency

“Greenwomen” (Kazakhstan), and “Eco-Accord” Sustainable Development Center (Russia).

24. The principal partners will establish a project coordination committee to oversee progress in the phased implementation of the project. The project coordination committee may also include other significant regional or national partners as required, through the agreement of the principal partners. It will report to the UNECE Working Group on PRTR and the International PRTR Coordinating Group²² on activities undertaken to implement the ENVSEC project at their respective annual sessions. The UNECE Regional Advisor will also report on the implementation of the project to the ENVSEC Management Committee.

Notes

¹ Fifty percent of Kyrgyzstan's population, 31 percent of Tajikistan's population and 27 percent of Uzbekistan's inhabitants reside in the Ferghana Valley. Environment and Security – Transforming risks into cooperation – Central Asia Ferghana / Osh / Khujand area, UNEP, 2004.

² Environment and Security – Transforming risks into cooperation – The Case of the Southern Caucasus, UNEP, 2004.

³ Environmental Performance Review of Ukraine, UNECE Committee on Environmental Policy, 1999. The second Environmental Performance Review of Ukraine (updated draft, 2006) notes continuing problems with water quality and industrial discharges in Ukraine. For example, 70 per cent and 60 per cent of wastewater from the metallurgical and petrochemical industries respectively are untreated or insufficiently treated. Wastewater from these industrial processes is typically contaminated with heavy metals, phenols, oil products and other hazardous substances. Recommendation 3.2 calls for (a) developing a national electronic database of data communicated by operators of leading environmental monitoring and observation networks according to agreed indicator sets; and (b) Maintaining national registers of state monitoring stations and analytical laboratories. See also <http://www.unece.org/env/epr/temp/Ukraine%20Recommendations.pdf>.

⁴ “Public Wants More Government Action to Protect Black Sea – Survey”, media release, Black Sea Ecosystem Recovery Project, 14 August 2006.

⁵ Pan-European environmental assessments, data collection for country environmental performance reviews and reporting under multilateral environmental agreements confirm that improvements in environmental monitoring and reporting are needed to keep pace with the challenges faced by the region. Revised Guidelines for Strengthening Environmental Monitoring and Reporting by Enterprises (ECE/CEP/AC.10/2006/4/Rev.1). See <http://www.unece.org/env/documents/2006/ece/cep/ac.10/ece.cep.ac.10.2006.4.rev.1.e.pdf>.

⁶ See the results of the project “Improving Practices of Public Participation: Next Steps in Implementing the Aarhus Convention [in Albania, Bosnia and Herzegovina, the FYR Macedonia, Serbia and Montenegro and Kosovo] (2004-2006)” - http://www.rec.org/REC/Programs/PublicParticipation/improving_practices/default.html.

⁷ The UNECE Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters was adopted in Aarhus, Denmark, in June 1998. An ENVSEC South Caucasus and Central Asia project currently promotes the implementation of the Aarhus Convention and the second component of Objective 6 of the EECCA Strategy by creating, or supporting already existing, public information centres (Aarhus Centres). Aarhus Centres are used as outreach tools to raise awareness of environment and security linkages; and to promote access to information and public participation in environmental decision-making, in particular as concerns key issues identified through ENVSEC assessment.

⁸ Signatory states are Armenia, Austria, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Georgia, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, the Netherlands, Norway, Poland, Portugal, the Republic of Moldova, Romania, Serbia and Montenegro (now the Republic of Montenegro and Republic of Serbia), Slovenia, Spain, Sweden, Switzerland, Tajikistan, The Former Yugoslav Republic of Macedonia, Ukraine and the United Kingdom. The European Community is a Signatory as a regional economic integration organization. The Protocol is open to accession by all States which are members of the United Nations and by other regional economic integration organizations both within and beyond the UNECE-region, according to article 26 of the Protocol.

⁹ The European Community adopted Regulation (EC) No 166/2006 on 4 February 2006 (OJ L 33, 4.02.2006, p.1) having direct effect on it 25 Member States. It deposited its instrument of approval of the Protocol on 21 February 2006.

¹⁰ Representatives of EECCA civil society and quasi-nongovernmental organizations, including from the Russian Federation, also regularly participate in the Protocol's Working Group. A Russian-language electronic discussion forum contributing to PRTR awareness-raising initiated with the facilitation of 'Greenwomen' Public Association (Kazakhstan) and sponsored by UNITAR in February 2005 had attracted more than 70 participants from the EECCA region.

¹¹ Notably Belarus and Kyrgyzstan have expressed interest in acceding to the Protocol in the near future (CEP/AC.10/2005/5). OSCE and the Ministry of Environmental Protection, Republic of Kazakhstan, organized a national PRTR workshop in Borovoe, Kazakhstan, in September 2005. The workshop adopted recommendations which contributed to the establishment (by ministerial decree) of a national committee mandated to prepare national PRTR development in November 2005. At the third meeting of the Working Group on PRTR, Tajikistan announced that it was preparing to ratify the instrument by 2007.

¹² Now the Republic of Serbia and Republic of Montenegro. In a letter dated 10 October 2006, the Government of the Republic of Montenegro notified the UN Secretary-General that: "[The Government of]...the Republic of Montenegro decided to succeed to the treaties to which the State Union of Serbia and Montenegro was a party or signatory.

¹³ Taking Stock 2003 North American Pollutant Releases and Transfers, Commission for Environmental Cooperation, 2006.

¹⁴ "Proposal for Framework Programme on Capacity Building in preparation for the implementation of the Kiev Protocol on Pollutant Release and Transfer Registers" — http://www.unece.org/env/pp/prtr/docs/2007/PRTRs_donor_invitation_2007_02_05.pdf.

¹⁵ For a compendium of PRTR capacity-building activities undertaken by UNECE, UNEP, UNITAR, REC, CAREC, European ECO-Forum and other selected organizations, see "Pollutant Release and Transfer Registers Capacity-building Activities" (ECE/MP.PP/AC.1/2007/L.8, available in English, French and Russian) - http://www.unece.org/env/documents/2007/pp/ece_mp_pp_ac_1_2007_L_8_e.pdf.

¹⁶ The following steps are involved in developing an enterprise monitoring and reporting programme:

- (i) Specify programme goals;
- (ii) Establish responsibilities;
- (iii) Identify the programme's scope;
- (iv) Decide on the approach and monitoring methods;
- (v) Specify the technical details of a particular standard or other measurement method and the units of measurement;
- (vi) Specify the timing requirements of sampling and measurements;
- (vii) Specify unambiguously the location where sampling and measurements should be performed;
- (viii) Define the operational conditions, including production loads;
- (ix) Establish appropriate quality assurance and control requirements;

- (x) Define the recording and reporting requirements;
- (xi) Make arrangements for the assessment and reporting of exceptional and accidental releases;
- (xii) Establish an internal framework to ensure compliance; and
- (xiii) Provide a clear statement of the compliance control procedures and the response in case of non-compliance.

From “Revised Guidelines for Strengthening Environmental Monitoring and Reporting by Enterprises” (ECE/CEP/AC.10/2006/4/Rev.1). See <http://www.unece.org/env/documents/2006/ece/cep/ac.10/ece.cep.ac.10.2006.4.rev.1.e.pdf>.

¹⁷ The Netherlands hosted a visit by Czech experts organized by the REC in 2003. The REC also organized study tours for South East European experts to the Czech Republic in 2004-2006. The OSCE sponsored a study tour for Kazakh PRTR experts to the Czech Republic in 2005.

¹⁸ See http://prtrvc.unitar.org/spip/rubrique.php3?id_rubrique=1.

¹⁹ The Guidance document was adopted by the UNECE Working Group on PRTR at its fourth meeting in Geneva, 14-16 February 2007. See <http://www.unece.org/env/pp/prtr.docs.htm>.

²⁰ See <http://www.eper.ec.europa.eu/eper/gaps.asp>.

²¹ ECE/CEP/2007/9. See <http://www.unece.org/env/documents/2007/ece/cep/ece.cep.2007.9.e.pdf>.

²² For background on the International PRTR Coordinating Group, see <http://www.unece.org/env/pp/prtr/Intl%20CG%20images/about.html>.