Developing a Pollutant Release and Transfer Register (PRTR) in Moldova

Feasibility Study

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EcoContact & REC
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CONTENT

ACRONYMS AND ABBREVIATIONS

Aarhus Convention	UNECE Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters
GEF	Global Environmental Facility
EcoContact	Environmental Public Association EcoContact, Republic of Moldova
EPA	Environmental Protection Agency
EPER	European Pollutant Emission Register
EPPO	Environment Pollution Prevention Office of the Ministry of Environment
E-PRTR	European Pollutant Release and Transfer Register
EU	European Union
IOMC	Inter-Organization Programme for the Sound Management of Chemicals
IPPC	Integrated Pollution Prevention and Control
MAC	Maximum Allowable Concentrations
MEA	Multilateral Environmental Agreement
MoE	Ministry of Environment of the Republic of Moldova
PRTR	Pollutant Release and Transfer Register
REC CEE	Regional Environmental Center for Central and Eastern Europe
OECD	Organization for Economic Cooperation and Development
OSCE	Organization of Security and Cooperation for Europe
TRI	Toxic Release Inventory
UNECE	United Nations Economic Commission for Europe
UfU	Institute of Environment, Berlin

INTRODUCTION

This initial version of the Feasibility study was been prepared in 2013 within the project "Establishment of the Aarhus Centre in Chisinau and the Public Information Centre in Bender" and was funded by the OSCE Mission to Moldova. This project supported the implementation of the Aarhus Convention[1] principles in Moldova thereby strengthening environmental governance, and it also included the preparation of a feasibility study on the design and development of a PRTR system in Moldova, to be prepared with the involvement of an international expert and a local expert.

The data collection and communication with stakeholders continued during the period of implementation of the indicated project (2013-2015) and has been updated within the Project "Support Establishment and Advancement of Pollutant Release and Transfer Registers (PRTRs) in Western Balkan Countries and in Moldova" in the period of June 2015 – January 2016. This project is implemented by the Regional Environmental Center (REC) in cooperation with the Public Association EcoContact in Moldova, during 24 months, between March 2015 and February 2017. The project is funded by the German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety's Advisory Assistance Programme (AAP) for environmental protection in the countries of Central and Eastern Europe, the Caucasus and Central Asia and other countries neighbouring the European Union. The project is supervised by the German Environment Agency (UBA).

The feasibility study is aimed to support the process of the establishment of the system of national Pollutant Release and Transfer Register (PRTR) in Moldova which originally was planned to be set up by the end of 2015 according to the Plan of Actions for the Implementation of the Aarhus Convention for Moldova for the period of 2011-2015 adopted by the Government Decision no. 471 of 28.06.2011. The provisions of the plan were not implemented until now, due to lack of political stability, continuity and financial resources. In 2015, in order to make these provisions more realistic and achievable, with the support from experts from NGOs (Eco-Tiras (project leader and coordination, EcoContact, Eco-Lex, OT Chisinau MEM) initiated, with a support of UfU (Institute for Environment) and funding from Federal Ministry of Environment of Germany and in collaboration with the Ministry of Environment of Moldova, the *revision of the Plan of Implementation of the Aarhus Convention, prepared in 2011*. The new deadline for the establishment of the PRTR System in Moldova is proposed for the year 2020, according to the draft updated Action Plan. This was not approved yet and it is in the process of internal examination in the Ministry of Environment. It is proposed to examine the possibility that the date could be changed for meeting an earlier target at the end of 2017 or 2018.

[1] The UNECE Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (called "Aarhus Convention") was adopted on 25 June 1998 in Aarhus, Denmark, and entered into force on 30 October 2001. The Convention currently has 46 parties, including the European Union. The Republic of Moldova signed the Convention on 25 June 1998, and ratified the Convention on 9 August 1999.

The Republic of Moldova ratified the Aarhus Convention on 9 August 1999, among the first, via the Parliament Decision No. 346-IV dated April 07, 1999. The ratification of the Aarhus Convention in Moldova was not followed by the adoption of a mechanism to implement into practice the three pillars of the Convention, even though the legislation was harmonized with its requirements and some amendments and regulations were approved. Therefore, a series of actions have been developed with the purpose to streamline the implementation of the Aarhus Convention provisions in the Republic of Moldova, and to promote the implementation of the PRTR, by setting up the National PRTR System by the end of 2015. As indicated above, this target was not achieved and the proposal to update the plan was supported by NGOs, followed by inputs to the proposed revised actions in 2015.

Following the definition of national PRTR objectives in the Aarhus Convention Plan of Actions, the Parliament of Moldova ratified the PRTR Protocol on 24 April 2013.

The Aarhus Convention in its Article 5, paragraph 9, foresees a general obligation for the parties to establish PRTRs by taking 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" which 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 offsite treatment and disposal sites."

Based on the above, the Signatories of the Aarhus Convention created a Task Force on PRTR, and later on an open–ended inter-governmental working group on PRTRs that negotiated the text of a new legal instrument on PRTRs between February 2001 and January 2003. The UNECE Protocol on Pollutant Release and Transfer Registers (PRTR)[2] was adopted at an extraordinary meeting of the Parties to the Aarhus Convention on 21 May 2003, in the framework of the fifth "Environment for Europe" Ministerial Conference held in Kiev. The Protocol, although negotiated under the Aarhus Convention, is a self-standing global instrument, and is open for any states in and outside the UNECE region.

Pollutant Release and Transfer Registers (PRTRs) represent an integrated system of information about release and transfer of potentially hazardous substances and pollutants. The register includes information on the nature and quantity of releases and transfers into the air, water, and soil, as well as information on transfer of hazardous and non-hazardous waste.

The idea of establishing a pollutant release and transfer register first emerged in the United States, where following the tragic accident in Bhopal (India) in 1984, the register called the Toxics Release Inventory (TRI) was established as a community- right- to- know tool. TRI tracks releases to all

[2] The UNECE Protocol on Pollutant Release and Transfer Registers (PRTRs), also called as "PRTR Protocol", adopted on 21 May 2003 in Kiev, Ukraine was signed by 32 countries and the European Union. It came into force on 8 October 2009. The Protocol currently has 33 parties including the European Union. After ratification by the Parliament of the Republic of Moldova, Moldova officially became a party to the Protocol on the 90th day after depositing its instrument of ratification with the United Nations Headquarters on December 23, 2013.

media (air, water and land) as well as off-site transfers of more than 600 chemicals. Subsequently several other countries developed similar registers (Australia, Canada, the Netherlands).

The importance of public access to information on environmental pollution, including emissions inventories was recognized by 1992 United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro (Brazil). Chapter 19 of Agenda 21 acknowledged that the broadest possible awareness of chemical risks is a prerequisite for chemical safety and recommended that governments should collect sufficient data about various environmental media while providing public access to the information and with the cooperation of industry and the public should implement and improve databases about chemicals, including inventories of emissions. Chapter 19 points out that governments should "consider adoption of community-right-to-know or other public information dissemination programmes as possible risk reduction tools". In the absence of such requirements "industry should be encouraged to adopt, on a voluntary basis, community right-to-know programmes ... including sharing of information on causes of accidental and potential releases ... and reporting on annual routine emissions of toxic chemicals to the environment."[3]

Following the Rio Conference, the OECD received the mandate in 1993 to prepare a guidance manual for national governments on PRTR which was published in 1996.[4] A task force was created within OECD to deal with the most difficult aspects of the creation of PRTR systems. In line with the recommendation of UNCED, OECD undertook this work within the framework of the Inter-Organization Programme for the Sound Management of Chemicals (IOMC).[5]

The PRTR Protocol is the first legally binding international instrument on pollutant release and transfer registers. Its objective of the register is "to enhance public access to information through the establishment of coherent, nationwide pollutant release and transfer registers (PRTRs)." It is to serve as an instrument of access to information, within the communities which "*have the right to know*" the situation regarding the releases and transfers of pollutants, causing adverse effects on environment and health. The information supplied by the PRTR should be accessible and "*user friendly*", so as to achieve the objective of sensitizing the communities and workers regarding the potential risks associated with certain chemicals. Moreover, this tool points out the importance of making changes at the level of the society, industrial and agricultural practices, so as to reduce the risks for environment and public health. Although regulating information on pollution, rather than pollution directly, the Protocol is expected to exert a significant downward pressure on levels of pollution, as no company will want to be identified as among the biggest polluters.

The PRTR also represents a useful tool for environmental management. This type of registers shall allow the governments to promote a better observance of their policies, by demonstrating trends

[3] Chapter 19 of Agenda 21, Environmentally Sound Management of Toxic Chemicals, Including Prevention of Illegal International Traffic in Toxic and Dangerous Products, provisions 8, 40 and 50.
[4] OECD, Pollutant Release and Transfer Registers (PRTRs): A Tool for Environmental Policy and Sustainable Development. Guidance Manual for Governments, Paris, 1996, available at:
https://www.oecd.org/dataoecd/36/32/2348006.pdf
[5] Since 2005, the International PRTR Coordinating Group has taken over the role of fostering interagency dialogue and cooperation from the IOMC PRTR Coordinating Group
http://www.unece.org/env/pp/prtr/intlcgimages/about.html

for reducing the pollution levels. The implementation of the PRTR, as well, leads to a better monitoring of the compliance with the international standards of the Aarhus Convention and a more specific definition of the national priorities, policies, and programs.

The Protocol requires each Party to establish a PRTR which is:

- **publicly accessible** through Internet, free of charge;
- **searchable** according to separate parameters (facility, pollutant, location, medium, etc.);
- **user-friendly** in its structure and provide links to other relevant registers;
- presents **standardized, timely data** on a structured, computerized database;
- covers releases and transfers **of at least 86 pollutants** covered by the Protocol's Annex II, such as greenhouse gases, acid rain pollutants, ozone-depleting substances, heavy metals, and certain carcinogens, such as dioxins;
- covers releases and transfers from certain types **of major point sources;** (e.g. thermal power stations, mining and metallurgical industries, chemical plants, waste and waste- water treatment plants, paper and timber industries);
- accommodates available data on **releases from diffuse sources** (e.g. transport and agriculture);
- has **limited confidentiality** provisions; and
- allows for **public participation** in its development and modification.

The Protocol's Annex I includes in total 65 activities grouped in 9 sectors.

The PRTR should be based on a reporting scheme that is:

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

The Protocol, similarly to the Aarhus Convention, sets minimum requirements, which means that Parties are free to go beyond and include additional pollutants and facilities.

The European Union developed and adopted a Regulation on establishing a European Pollutant Release and Transfer Register (Regulation (EC) no. 166/2006 of the European Parliament and of the Council of 18 January 2006) and ratified the PRTR Protocol in February 2006. With the Regulation, the EU upgraded its former system of European Pollutant Emission Register (EPER) adopted in 2000[6], created in the context of reporting on emissions from facilities covered under the

[6] The former European Pollutant Emission Register (EPER) was the first European-wide register of industrial emissions into air and water established by the Commission Decision of 17 July 2000 (2000/479/EC, EPER Decision). EPER which was not yet a PRTR, only covered 50 pollutants released to two media (air and water), from 56 industrial activities in 12 000 facilities in 26 countries (EU-25 and Norway). EPER required countries to report only every third year. Due to the adoption of E-PRTR and the ratification of the PRTR Protocol, it was in force for two reporting years, 2001 and 2004.

annex of the Integrated Pollution Prevention and Control Directive[7]. The European Pollutant Release and Transfer Register (E-PRTR) was designed for the EU to meet the requirements of the Protocol and to establish an EU-level PRTR reporting system. While the PRTR Protocol provides obligations to establish PRTRs at the national level, the E-PRTR Regulation mainly prescribes obligations for the EU countries on what and how to report to the EU level register. The E-PRTR Regulation goes beyond the PRTR Protocol as it covers reporting obligations for 91 pollutants.[8]

Following the definition of national PRTR objectives in the Aarhus Convention Plan of Actions and the ratification by the Parliament of Moldova of the PRTR Protocol, a comprehensive assessment was foreseen to be prepared in the form of a feasibility study, under the above mentioned OSCE funded project.

This feasibility study evaluated the current legal, regulatory, institutional, administrative and technical infrastructure as well as the available national expertise relevant for designing and implementing a national PRTR system in Moldova. It also included recommendations and conclusions for the further steps of designing and establishing a PRTR system, and should serve as reference document for the PRTR development process, as well as for assisting in the preparation for the implementation of the PRTR system in the coming years.

The feasibility study was prepared by an international expert, Magda Tóth Nagy, in close collaboration with the local consultants Andrei Isac, PhD Iordanca-Rodica Iordanov and LLM Irina Punga, as well as with the cooperation of diverse national partners, including state authorities, institutions, and representatives of the civil society, businesses and international organizations. During the preparation of the study, the international and local experts conducted a series of discussions with the representatives of these key stakeholders and collected the necessary information through personal interviews, meetings, desk research as well as using the available reports, materials prepared in other relevant international and national projects. The final version of the study was prepared based in the discussions in the national Workshop held on October 4, 2013, in Chisinau, at the conference room of the OSCE Mission.

The update of the current situation in the implementation of the PRTR System in Moldova was carried out in 2015 under the above mentioned recently started project funded by Germany. Within that project, an "Overview of the current status of development of PPTR and implementation of the PRTR Protocol in Moldova" was prepared in June 2015 and finalized in November 2015, which intended to present the current situation on PRTR development and implementation in Moldova in the last 2-3 years. The Overview was based on the evaluation of the implementation of the provisions of the Plan of Actions for the Implementation of the Aarhus Convention for Moldova for

[7] Council Directive 96/61/EC concerning integrated pollution prevention and control (IPPC) which has established an EU-wide integrated permitting system, as one of the cornerstones of the European environmental legislation. The directive was revised and adopted as Directive 2010/75/EU on industrial emissions.

[8] The E-PRTR Regulation requires the reporting on 5 additional pollutants (Octylphenols and Octylphenol ethoxylates, Fluoranthene, Isodrin, Hexabromobiphenyl, Benzo(g,h,i)perylene) compared to the 86 pollutants of the PRTR Protocol. It also imposes more stringent thresholds for another 6 pollutants; PCDD (dioxins), PCDF (furans), tetrachloroethylene, tetrachloromethane, trichlorobenzene, trichloroethylene and trichloromethane). The E-PRTR currently contains annual data reported by 32 countries: 27 EU Member States as well as Iceland, Liechtenstein, Norway, Serbia and Switzerland.

2011-2015, implemented projects and on-going activities. This short assessment, presenting the status of implementation as of November 2015, helps in the identification of current status and of the short and medium term priority actions needed for the establishment of the PRTR system in Moldova. Based on this Overview and the outcomes of the multi-stakeholder event held on June 30, 2015, the former feasibility study has been recently updated by local experts, Andrei, Isac, Irina Punga and Iordanca-Rodica Iordanov, with input from an international expert, Magda Tóth Nagy.

Those parts of the former feasibility study which are still relevant have been kept and the other parts have been updated with the new developments. The background documents and materials used are mentioned or referenced in the study.

The authors of this study would like to express their gratitude for the kind support and commitment of all those experts who shared their views and contributed to preparation of this study.

1. LEGAL FRAMEWORK NECESSARY FOR THE DEVELOPMENT AND IMPLEMENTATION OF A PRTR IN MOLDOVA

The establishment of the national PRTR and implementation of the obligations under the PRTR Protocol requires the establishment of a legal framework including some general and some specific laws or provisions. These should include the following:

- General and specific obligations for the competent authority or authorities who will be collecting, validating the data and managing the register, as well as dealing with accessibility to the data and confidentiality issues;
- Obligations for operators to collect and report the relevant data;
- Legislative framework ensuring public participation in establishing and modifying the PRTR, and access to information and access to justice.

1.1. Overview and assessment of the current existing legal framework

As mentioned above, with the Law on the Ratification of the PRTR Protocol Law Nr. 99, 26.04.2013, the Parliament of the Republic of Moldova adopted the act of ratification and took on the obligations to implement the Protocol. The Law on Ratification assigns the Ministry of Environment as the national competent authority responsible for the collection of information on emissions of pollutants and their transfer, development and maintenance of a national register of emissions and transfers, as well as ensuring collaboration and reporting at the international level in accordance with the provisions of the Protocol.

The Law on Ratification and the already existing obligations for Moldova under the Aarhus Convention create the legal basis for the establishment and operation of the national PRTR system in the legislation. Although the international legislation - thus the provisions of the PRTR Protocol as well - is directly applicable in Moldova, a more detailed implementing **new Regulation** is necessary which will define the obligations of the administrative authorities who will be collecting, validating and managing the register as well as dealing with the accessibility to the data and confidentiality issues, and set the obligations for the operators to collect and report the relevant data.

This will allow a more effective implementation regarding the above indicated PRTR related obligations for authorities, operators and for ensuring public participation in establishing and modifying the PRTR, and access to information and access to justice.

The Government Decision no. 471 of 28.06.2011, Plan of Actions for the Implementation of the Aarhus Convention for Moldova for 2011-2015, which is also mentioned in the Explanatory Note to the Law on Ratification already foresees, among others:

- The development and adoption of the appropriate legislation (approval by the government the Regulation establishing the National Pollutant Release and Transfer Register);
- The plan to harmonize the national PRTR with Regulation (EC) no. 166/2006 of the European Parliament and of the Council of 18 January 2006 establishing a European Pollutant Release and Transfer Register; and
- The establishment of the PRTR register by the end of 2015;
- The adoption of legislation and the establishment of PRTR in the context of the adoption of the new draft Law on Environmental Protection and draft National Strategy for Environment.

In addition to the above, the draft Law on Environmental Protection, currently being revised and prepared by the MoE for the second submission to the Parliament, includes an article on establishing and keeping the national PRTR, on its structure and the reporting responsibilities. This article will include also some general and specific provisions obligations necessary for the establishment of the legal framework for the setting up and operation of PRTR as well as to ensure public participation in establishing and modifying the PRTR, and access to information and access to justice. The draft National Strategy for Environment also pending adoption by the Parliament, a strategic approach is included on establishing and implementing the national PRTR.

There is already existing general legislation which is relevant for the establishment and operation of the national PRTR:

- Constitutional provisions on environmental rights set forth within the Constitution adopted in 1994, such as:
    - Article 37, Part 1, which states: "Every person has a right to ecological safety with respect to his life and to a healthy environment, as well as safe nutrition products and things of everyday use."
    - Article 37, Part 4 of the same article stipulates that "natural and legal persons are responsible for damage to health and property of a person as a result of an environmental violation."
    - Article 37, Part 2, provides everybody with the right to free access to environmental information.

- The Law on Access to Information, no. 982-XIV of 11.05.2000

Regarding the Protocol, public access to environmental information (Article 11) and confidentiality of information held on the register (Article 12) are relevant.

For the purposes of PRTR under Article 11, Public access to environmental information, and Article 12, Confidentiality the following obligations should be complied with:

- To ensure that PRTR data are easily publicly accessible through electronic means for anyone without an interest having to be stated (Article 11, par. 1);
- Where electronic access is not available, data should be provided upon request within one month by other effective means (Article 11, par. 2);
- Electronic access should be facilitated to the register in publicly accessible locations, (for example in public libraries, offices of local authorities or other appropriate places), in case there is no easy electronic public access (Article 11, par. 5);
- Ensure that access is free of charge or that any charges do not exceed a reasonable amount (Article 11, par. 3);
- Information may be held confidential if adversely affect certain legitimate interests (such as international relations, national defence or public security; course of justice; commercial and industrial information; intellectual property rights and personal data), Article 12, par. 1
- Interpret in a restrictive way the grounds for confidentiality, taking into account the public interest served by disclosure and whether the information relates to releases into the environment (Article 12, par. 1 and 2)
- Disclose information that is considered confidential, including provision of generic chemical information and the reason the other information has been withheld (Article 12, par. 3)

Regarding Article 11 of the Protocol, the Aarhus Convention already includes similar obligations for its parties in it Article 4, Access to Environmental Information, and Article 5, Collection and Dissemination of Environmental Information. These obligations are generally included in the Law on Access to Information.

The PRTR Protocol as a self-standing instrument from the Aarhus Convention contains partly similar and partly different requirements in its Article 12, Confidentiality, when competent authorities may be authorized to keep information held on the register confidential. The cases of exemptions are almost identical with the Article 4 of the Aarhus Convention, apart from the commercial and industrial information. In this case, the Protocol does not include a similar exception referring to "information on emissions which is relevant for the protection of the environment shall be disclosed". Instead, it only says that "any information on releases which is relevant for the protection of the environment shall be considered for disclosure according to national law".

The Law on Access to Information adopted in 2000 regulates in general the relationship between the information provider/keeper and the individual and/or legal person the access to information, and the realization of the constitutional right of access to information. The law settles the principles, conditions, and ways of achieving the access to the official information held by data

providers/keepers. Under the law, citizens and residents of Moldova can demand information from state institutions, organizations financed by the public budget and individuals and legal entities that provide public services and hold official information. The bodies must respond within 15 working days.

Among the information to which access may be restricted, the confidential business information is also listed. This refers to that "confidential business information" which is "submitted to public institutions under conditions of confidentiality, and which is regulated by the legislation on trade secrets and is related to production, technology, administration, funding, other business activities, whose disclosure (transmission, leak) may affect the interests of businesses." The provisions of this law have not been fully brought in line with the Aarhus Convention to which Moldova is a party which states in its Article 4, par. 4: the exemptions on confidential business information (commercial and industrial information) cannot include "information on emissions, which is relevant for the protection of the environment" and this always shall be disclosed.[9] However, the Law on Access to Information explicitly confirms that in case of discrepancies between the provisions of the international agreements and the national legislation, the clauses of the international agreements are directly applicable.

The draft Law on Environmental Protection will incorporate more precise provisions on public access to environmental information that will be harmonised also in this respect with the Aarhus Convention. Formerly, a draft Law on Access to Environmental Information was also elaborated that included more detailed provisions regarding the above mentioned issues and was in line with the Aarhus Convention and the EU Directive 2003/4/ of January 28, 2003, on public access to environmental information and repealing Council Directive 90/313/EEC. However, the Government's position was that there was no need for another more specific law on access to environmental information in addition to the already existing Law on Access to Information and Law on Transparency. Nevertheless, at the end of 2015, it has been again proposed to submit a proposal for a new Law on Access to Environmental Information.

- ***The 1993 Law on Environmental Protection (LEP)*** - This law is the main act providing the legal basis for the development of subsequent normative acts and instructions on specific environmental issues in the Republic of Moldova.

The main features regulated by this law are: principles of environmental protection; competences and tasks on environmental protection of the Parliament, President, Government and local public administration; environmental rights and obligations of legal and natural persons; requirements for the protection of natural resources, including soil, water, subsoil, atmospheric air, and biodiversity conservation; requirements for the management of waste, toxic substances, mineral fertilizers and pesticides; aspects on protection against ionising radiation; management of environmental funds; and responsibilities for non-compliance and environmental disputes settlement. However, the

[9] The Article 4, par. 4 d of the Aarhus Convention says that "information on emissions, which is relevant for the protection of the environment" shall be disclosed." Also, in the same Article 4, par. 4, the Convention requires a public interest test for all the exemptions and that these restrictions access to "shall be interpreted in a restrictive way, taking into account the public interest served by disclosure and also taking into account whether the information requested relates to emissions into the environment."

current framework established by the 1993 LEP, lacks a systemic and coherent approach and is media oriented, regulating environmental factors separately. The new draft framework Environmental Protection Law is aimed to create the basis for an integrated approach to environmental regulation as well as for approximation to the respective EU directives.

The adoption of the new draft framework Law on Environmental Protection is expected to trigger a substantial reform of the entire environmental legal and institutional framework towards a more integrated approach to environmental protection implying a further convergence with EU legislation with the purpose of accelerating the compatibility of national legislation with the Acquis Communitaire. According to the Action Plan of the Government for 2012-2015 (2012 GD No 289) for the harmonization of the legislation with EU directives, 25 environmental legislative acts and 35 bylaws have been expected to be approved by end of 2014. However, due to the unstable political situation, there has not been progress made on this.

- ***Public participation regarding decision-making on PRTR issues***

  The PRTR Protocol under Article 13, requires public participation regarding decision-making on PRTR issues (similarly to the requirements of the Article 7 of the Aarhus Convention). These are as follows:

  - Appropriate opportunities for public participation should be ensured in the development and modification of the PRTR (Article 13, par. 1-2);
  - The public must have free access to information on the proposed measures in a timely manner (Article 13, par. 3);
  - Opportunities for the submission of comments, proposals, analyses or opinions must be provided on proposed measures concerning the development of the PRTR (Article 13, par. 2);
  - Due account must be taken of any public input (Article 13, par. 4).

The former Law on Environmental Protection in Moldova includes articles on public participation of the public in environmental decision-making. Also, the "Regulation on the involvement of public in decision making and adoption of environmental issues" was adopted (by Government Decision no. 72 of 25.01.2000), in order to implement the Aarhus Convention. The regulation is based on the provisions of Chapter III of the Law no. 851 of 29.05.96 on ecological expertise and environmental impact assessment and Articles 3-30 of the Law on Environmental Protection no. 1515-XII of 16 June 1993.

According to this regulation, public involvement in the drafting and adoption process of the environmental decisions is a social act according to which the right and the access is ensured to decision-making, to express the opinions on the adoption and implementation of draft laws and project documentation regarding the objects and activities envisaged that influence or may influence the environment. There is also a Law on Transparency of Decision-making adopted in 2008 which sets the requirements to ensure the transparency in decision-making of all public authorities.

The new draft Law on Environmental Protection includes also a revised article on public participation in environmental decision-making, implementing fully the Aarhus Convention's Article 7, Public participation concerning plans, programs and policies, programs relating to the environment. This will be relevant for ensuring public participation in the development or modification of national PRTRs as required by Article 12 of the Protocol. It is planned that the mentioned "Regulation on the involvement of public in decision making and adoption of environmental issues" will also be revised in the framework of the Plan of Actions for the Implementation if the Aarhus Convention.

- ***Access to justice***

Article 14 of the PRTR Protocol provides for access to a review procedure before a court of law or another independent and impartial body established by law for any person who considers that his or her request for information has been ignored, wrongfully refused, whether in part or in full, inadequately answered, or otherwise not dealt with (in accordance with the Article 11, Public Access to Information of the Protocol). This requirement is similar as the obligations of Article 9.1 under the Aarhus Convention.

Moldova, as a party to the Convention is already obliged to implement this obligation. As mentioned above, the new Law on Environmental Protection and the formerly proposed Law on Access to Environmental Information were already envisaging to complete the missing aspects of access to justice. In the Plan of Actions for the Implementation of the Aarhus Convention it is planned to further develop the legislation to guarantee the rights on access to justice in environmental matters, including access to environmental information and public participation in decisions on specific activities.

Sectorial environmental laws relevant for PRTR

Air Quality

The 1997 Law on Atmospheric Air Protection (last amended in 2008) is the main law concerning air quality. It aims to maintain and improve the air quality, prevent and reduce the harmful effects of physical, chemical, biological, radioactive and other factors with adverse consequences for the population and / or the environment and regulates the activity of natural and legal persons, regardless of the type of ownership and legal form of organization, which directly or indirectly affect or may affect atmospheric air quality. The Law provides for the establishment of Maximum Allowable Concentrations (MAC) of pollutants, including biological pathogens and harmful substances as well as allowable concentrations of radionuclide in atmospheric air and their harmful physical influence on environment and human health; and emission standards for the stationary and mobile sources of pollution. The emission standards are calculated based on the volume of emitted pollution in the air but they are not in line with the PRTR Protocol's requirements which include thresholds for individual activities and for individual or groups of substances listed in the Protocol's Annexes.

The 2009 Law No 10-XVI on State Surveillance of Public Health states that the atmospheric and indoor air shall not pose risks to human health. Individuals and legal persons are obliged to take measures prevent and eliminate the air pollution by harmful substances in the rooms. Zones of sanitary protection shall be established around the industrial enterprises, at certain distance from protected areas, public recreation areas, health care and education institutions, as well as residential areas. The Law also stipulates that the atmospheric and indoor noise levels, vibration, and other factors present in places and places of permanent or temporary presence of humans should not pose a risk to human health. Natural and legal persons are obliged to take measures of prevention and reduction of noise levels, vibration, affecting health.

For the purposes of PRTR, the obligation to be covered is the reporting for facilities undertaking one or more of the activities specified in the Annex I of the PRTR Protocol above the applicable threshold on emissions of any pollutant specified in Annex II.

Water Quality and Water Resources Management

The Water Lawis in force from October 2013 includes provisions on river basin districts, the establishment of administrative arrangements for international waters, analysis of river basin district characteristics, undertaking preliminary flood assessment, preparation of flood hazards maps and flood risks maps, establishment of flood risk management plans, establishment of water quality monitoring programmes, river basin management programmes and consultation with the public.

For implementing the Integrated Water Management under the Water Law are applied additional 20 regulations, such are: regulation on identification, delimitation and classification of water bodies; on surface water protection; on development and approval of management programme and action plan; on procedures for the development and updating of water resources monitoring programmes; on river basin committees and others.

The Water Law is in line with the Water Framework Directive, which includes reporting obligations for certain substances also covered under the PRTR Protocol's as well as the E-PRTR Regulation Annexes. For the purposes of PRTR, the obligation to be covered is the reporting for facilities undertaking one or more of the activities specified in the Annex I of the Protocol above the applicable threshold on releases of any pollutant specified in Annex II.

The 1995 Law on Protected Zones of Rivers Beds and Water Basins requires the creation of protection zones and belts along rivers and water bodies and establishes a regulatory framework for activities within these zones. Other relevant legislation on water resources management includes among others the 1994 Regulation on State Water Cadastre and the 1998 Regulation on integrated environmental monitoring system.

Waste Management

The 1993 LEP constitutes the basic legal framework for the development of special normative acts and instructions on waste management.

According to the LEP, the State policy on waste management is to be based on: recognition that the excessive accumulation of waste is a consequence of an irrational use of energy and raw materials affecting the environment; awareness measures aimed at the implementation of technical solutions, economic and management mechanisms, which would permit the reduction of waste accumulation, energy production and recyclable portions of production and household waste, disposal and efficient isolation of non-recyclable waste. The Law establishes the competences in the field of waste management of the Government.

The Law also provides that producers must organize, the collection of used packaging materials, such as paper, cardboard, timber, glass, metal, plastic, and provide for their remanufacturing and recycling while the municipalities must create the necessary conditions to implement these tasks. Moreover, the Law prohibits the importation of crude or processed waste residues of any kind, except of processed waste paper and glass shards to be used as secondary raw material by companies in the Republic of Moldova for processing, temporary storage, storage, spreading on soil or water or destruction by any means.

The 1997 Law on Production of Waste and Household Waste (last amended in 2012), provides a framework for the regulation, storage, record keeping, planning, control, supervision and monitoring in the field of waste management. It regulates the management of waste generated from different sources. The Law establishes the waste-related competences of the Government, central public authority for environment protection and natural resources, central public authority for health (currently: Ministry of Environment and the Ministry of Health) and local public administration authorities as well as the responsibilities of natural and legal persons.

The 2003 Government Decision on the control of transboundary waste movement and its disposal approved the categories of hazardous waste and the Regulations on the control of transboundary waste transportation in the Republic of Moldova. This normative act was adopted in the context of harmonizing the national requirements for environmental safety of waste export and transit with the recommendations of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal.

The draft Law on Waste, currently also under consideration of the Parliament, will establish a new regulatory framework for waste management and replace the 1997 Law on Production Waste and Household Waste. The draft law provides for a five-step waste hierarchy, waste management plans, waste prevention programmes, specific obligations on hazardous waste management, permitting system. It includes requirements on packaging and packaging waste, the management of end-of-life vehicles, electrical and electronic equipment, waste incineration, etc.

For the purposes of PRTR, it is an obligation to report on the amount of waste transferred off-site in the reporting year, distinguishing between hazardous waste and other waste for any operations of recovery or disposal. (It should be indicated with ‘R’ or ‘D’ whether the waste is destined for recovery or disposal, pursuant to Annex III). For transboundary movements of hazardous waste, the name and address of the recoverer or disposer of the waste and the actual recovery or disposal

site receiving the transfer should be also reported. Parties may also opt for pollutant specific waste reporting, however, only the Czech Republic has considered so far applying this option as well.

The new Law on Waste should be in line with the obligations of the PRTR Protocol and the E-PRTR Regulation.

Chemicals

The overall legal regime for the environmental protection from the use of chemicals is established mainly by the 1993 LEP, and the 1997 Law on Harmful Products and Substances Regime, which establishes the legal framework for the manufacture, storage, transportation, handling, use and neutralization of harmful products and substances as well as their import and export in order to exclude, reduce or prevent the impact of such products and substances on humans and the environment.

This law however, does not include reporting obligations for the operators on emissions or releases caused by harmful pollutants and substances or offsite transfers of waste water or waste.

The Republic of Moldova has also ratified the global Multilateral Environmental Agreements (MEAs) related to air pollutants, chemicals and waste management such as:

- The Convention on Long-range Transboundary Air Pollution and its protocols, including the Protocol on Persistent Organic Pollutants and Protocol on Heavy Metals;
- The Stockholm Convention on Persistent Organic Pollutants;
- The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal;
- The Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade.
- The Vienna Convention for the Protection of the Ozone Layer and Montreal Protocol on Substances that Deplete the Ozone Layer.

The Republic of Moldova is also a party to the Strategic Approach to International Chemicals Management (SAICM) and designated the SAICM National Focal Point.

Despite the ratification of these MEAs, there is a clear need for improvement of the chemicals' and waste management within the country in order to fulfil the commitments assumed within chemicals and waste MEAs. This implies the harmonization of the national legislation in compliance with the requirements set in these treaties. There is still no comprehensive system for chemicals and hazardous waste regulation, which would be in line with the international requirements, and it is very difficult to ensure an adequate management of chemicals, which would prevent environment pollution and human health degradation during their entire lifecycle.

For the purposes of the PRTR l, it is relevant that the Protocol's Annex I on Activities, and Annex II on Pollutants including the thresholds, as well as the reporting requirements on the off-site transfer

of transboundary hazardous waste, should be harmonized with the respective MEAs listed above in order to avoid duplications.

In the period of 2013-2014 by a group of experts, led by Eco-Tiras and EcoContact, the draft Law on Access to Environmental Information was developed, as mentioned above. This draft law passed all governmental coordination and approval processes and currently is under examination by Parliamentary Commissions, according to the procedures, before it will be proposed for adoption. This process lasted more than one year, due to the political instability in the country, and it is not considered to be a priority for the Parliament in this period of time. Based on the developments in the last years, it seems that it could be also an option that the general provisions are included on the establishment and operation of PRTR in this draft law.

At the moment this approach is considered the best way forward, as the draft Law on Environmental Protection is not in the work plan of the ministry for 2016 and is not considered a priority.

The proposals to the Draft Law on Access to Environmental Information, related to PRTR System, include the additional list of the definitions and two articles regarding general settlement and specific elements for application of the PRTR, see annex 1.

1.2. Obligations under the PRTR Protocol and E-PRTR Regulation which are not covered

Based on the above assessment, it is clear that many of the currently existing provisions which are or could be relevant for PRTR are dispersed at the moment among different laws and regulations, and also, they are far from being complete. On the other hand there are also significant legislative gaps which need to be covered:

There are obligations which do not exist at the moment in the legislation in force in Moldova and still need to be covered:

- The general and specific obligations for the competent authority responsible for collecting, validating and managing the register, as well as dealing with accessibility of the data and confidentiality issues; This includes also the reporting requirements on releases and transfers which at the moment are missing from the Moldovan legislation.
- The obligations for operators to collect and report the relevant data according to the PRTR Protocol's reporting requirements.
- In addition, it is necessary to improve and complete the legislative framework with provisions ensuring public participation in establishing and modifying the PRTR, on access to information, especially on clarifying the grounds for confidentiality regarding the information on emissions, as well as on access to justice.

Regarding these latter, as the Republic of Moldova is a party to the Aarhus Convention and has an obligation to bring its legislation in compliance with this broader instrument. Therefore it is necessary to fully implement the Aarhus Convention's Article 7, Public participation concerning plans, programs and policies, programs relating to the environment. Also, rather than applying the Article of 12 of the PRTR Protocol, (Confidentiality), the Convention's Article 4, Public Access to Environmental Information, and Article 9, Access to Justice should be applied (especially Articles 4.4 and 9.1). As mentioned above, Article 4.4 clarifies the exemptions when information may be withheld including the clause according to which regarding industrial and commercial confidentiality "information on emissions which is relevant for the protection of the environment shall be disclosed".

1.3. Proposals for amendment of existing laws/regulations and the proposed new Law/regulations for the design and implementation of a PRTR in Moldova

It is proposed that:

- One overall legislative framework should be created for establishing the national PRTR in a coherent and systematic way, in line with the PRTR Protocol and with the EU's E-PRTR Regulation, instead of having scattered legislative pieces across different laws and regulations.

- Therefore, in addition to the current Law on Ratification of the PRTR Protocol, and the proposed general provisions included in the Law on Environmental Protection or in the Law on Access to Environmental Information, a **new Regulation** should be drafted and adopted on establishing the National PRTR. The law should define in details the obligations of the administrative authorities who will be collecting, validating and managing the register, as well as should deal with accessibility of the data and confidentiality issues and also, the obligations for operators to collect and report the relevant data according to the Protocol's reporting requirements.

- The new Regulation on PRTR should be in full compliance with the PRTR Protocol and at once should also be harmonized with the EU's E-PRTR Regulation. Although, this latter is not an obligation for Moldova, the E-PRTR is not only an EU level register but increasingly has the potential to become a European PRTR providing information about the situation of the pollution and transfers in the whole of Europe and includes the PRTR reports of more and more European countries.

The new Regulation should include provisions on the obligations indicated in the box below[10].

[10] Guidance on the Protocol on Pollutant Release and Transfer Registers, UN, 2008, page 11.

Box 1: Checklist of legislative elements on data collection and dissemination

General provisions

1. Authority (or obligation) to establish and maintain a public register (art. 4)
2. Designation of competent authority for managing the PRTR (art. 2, para. 5 and art. 3, para. 1 in connection with Article 4 (j)) (Management of the PRTR, data collection, and enforcement of reporting obligations will not necessarily be carried out by the same authority.)
3. Definitions, e.g. facility, pollutant, release, off-site transfer (compare art. 2 where necessary)
4. Designation of which point source facilities will be subject to mandatory reporting on a periodic basis (or, alternatively, authority to request the information from facilities needed for the PRTR)
5. What information needs to be reported and in what format (art. 7, paras. 5 and 6)
6. Reporting cycle and deadlines for reporting (art. 8)
7. Measures providing for the effective enforcement of the provisions of the Protocol, for example provisions making it an offence to submit information known to be false, and sanctions for so doing.

Obligations for owners and operators

1. To collect data and keep records for five years (art. 9, para. 1)
2. To use the best available information when reporting, and to use internationally approved methodologies where appropriate (art. 9, para. 2)
3. To assure the quality of information reported (art. 10, para. 1)

Obligations for Parties

1. Obligation to provide direct electronic access to the register through public telecom networks and, failing this, in publicly accessible locations (art. 11, para. 1 and art. 11,para. 5)
2. Obligations to carry out quality assessments of the data in the register in particular assess whether & to ensure that the data are complete, consistent and credible (art. 10, para. 2)
3. Provisions on what information on the register may be kept confidential, as well as the procedure (criteria) for taking the determination and for providing information on what data have been withheld and why (art. 12, paras. 1, 2 and 3)
4. Measures to ensure that employees or members of the public who report a violation by a facility are not penalized, persecuted or harassed (art. 3, para. 3)
5. Technical measures for collection of information on diffuse pollution (art. 7, paras. 4 and 7)

In addition, the series of new draft laws to be submitted to the Parliament or under consideration in the Parliamentary procedure should be reviewed whether they include the necessary short general articles or references to reflect the needed obligations. These are as follows:

- The draft Law on Environmental Protection or the proposed draft Law on Access to Environmental Information should include:

- A general article on establishing a National PRTR including listing the relevant main obligations and responsibilities including public access to information, confidentiality, public participation and access to justice, while referring to the specific Regulation on PRTR;
- Provisions implementing fully the Aarhus Convention's Article 7, Public participation concerning plans, programs and policies, programs relating to the environment (as relevant also to PRTR decision-making), and
- In lack of the adoption of a new Law on Access to Environmental Information, the confidentiality and access to justice aspects of the Aarhus Convention Article 4 and Article 9 (and especially, Articles 4.4 and 9.1) Moldova as a party has an obligation to comply with the Convention which is broader than the PRTR Protocol in this respect, therefore the Aarhus Convention's articles should be followed.

- The sectorial environmental laws (draft law on air, water, waste) and the draft Law on Chemicals need to be brought in line regarding the respective reporting requirements on the emissions and discharges of pollutants into the different media and transfer of hazardous and other waste, with the PRTR Protocol's requirements;

- A governmental decree should be drafted and submitted for the creation of the integrated electronic PRTR database according to the requirements of the Governmental Programme on E-governance. This decree should describe the legal background and need for such a database and how it will be designed and operated; See more below in Chapter 4.

- On longer perspective, the law transposing and implementing the Integrated Pollution Prevention and Control Directive (IPPC) Directive (now replaced by the new Directive 2010/75/EU on industrial emissions) planned in the next 4-5 years, will be also relevant for the functioning of PRTR, and should be closely linked with the operation of the national PRTR, in line PRTR Protocol and the E-PRTR Regulation.

In June-August 2015, with the support of The Federal Ministry for the Environment, Nature Conservation and Nuclear Safety of Germany, UfU and Eco-Tiras Association (Moldova), in collaboration with EcoContact and the Ministry of Environment, the updated version of the National Implementation Plan for the Aarhus Convention for 2016-2020 was developed. The revised document takes note of current state of implementation, including the PRTR System, and proposes new terms, measures and implementing instruments. The draft was publicly consulted and submitted to the MoE, but because of changes of governments during the last half of the year could not be promoted for coordination and approval. However, it is proposed that the target date of 2020 would be changed and brought forward to the end of 2017 or end of 2018 so the system would be operational by the time the on-going projects are finished.

Within the project "Support Establishment and Advancement of Pollutant Release and Transfer Registers (PRTRs) in Western Balkan Countries and in Moldova", it is proposed that EcoContact with the support of REC will develop also the general legal provisions and the draft Regulation on

PRTR in the first half of 2016. The draft general provisions and the regulation will be submitted for the Ministry of Environment and governmental approval process.

2. INSTITUTIONAL FRAMEWORK FOR THE SETTING UP AND FOR OPERATION OF A PRTR IN MOLDOVA

2.1. The current institutional framework and its shortcomings

In Moldova, the **Ministry of Environment** (MoE) is the central body that implements the State policy on environmental protection and rational use of natural resources, waste management, biodiversity conservation, geological surveys, use and protection of subsoil, hydro-melioration, management water resources, water supply and sanitation, regulation of nuclear and radiological State ecological control, hydrometeorology and monitoring of environmental quality.

The Ministry implements the environmental policy and the regulatory measures through its sub-sectorial divisions and subordinated institutions and state enterprises. According to the current institutional setting in the field of environment, the responsibilities for the collection, registering and monitoring of the data on pollutant releases and transfers are split among the various directorates within the Ministry of Environment and among its numerous subordinated institutions and state enterprises.

Below we are giving a description of different units, departments and institutions under the MoE and outside the MoE, who have certain responsibilities, competences regarding the PRTR related issues, are involved in some ways in collecting, registering or monitoring data or hold information regarding pollutant releases and transfers.

There are four sub-sectorial divisions in the central body of MoE:

1. Division of Analysis, Monitoring and Evaluation of Policies: to help improve the efficiency of the Ministry of ensuring coordination, monitoring, evaluation and reporting on the implementation of policy documents regarding the environmental protection and sustainable use of natural resources by its internal subdivisions;
2. Division of Pollution Prevention and Waste Management (National Focal Point on PRTR Protocol): to develop and promote the State policy on of pollution prevention, waste management and chemicals;
3. Division of Natural Resources and Biodiversity: to develop and promote the State policy on rational use of natural resources, conservation of biodiversity, protected natural areas and biological security;
4. Division of Water Management: to develop and promote the State policy on water supply and sanitation and water management.

5. Legal Section (including also the National Focal Point on Aarhus Convention): to develop and promote the State policy in the field of access to information, public participation and access to justice.

In addition to the sub-sectorial directorates, the following state institutions and organisations are also involved:

Subdivisions of the MoE:

State Hydrometeorological Service

The function of the State Hydrometeorological Service is to conduct the monitoring of environmental quality and in particular of: surface water quality, atmospheric air quality, the radioactive state of environment and soil quality. The Service has the following monitoring activities and information which may be relevant for the future PRTR:

- Air, water and soil quality monitoring data (including POPs pesticides residual concentrations, selected agricultural lands);
- Toxic chemicals in water and sediments (surface waters, permanent monitoring points);
- Toxic chemicals in vegetation (selection);
- Emissions of chemicals in atmospheric air (national level (towns) and transboundary air pollution (Leova Station);
- PCBs in oils (from energy sector and other holders);
- PCBs in soil (contaminated sites);
- PM10 (started for testing, no accreditation yet).

The State Water Cadastre is maintained by the Ministry of Environment and three subordinated institutions: the Agency Apele Moldovei, the State Hydrometeorological Service and the Agency for Geology and Mineral Resources. Other governmental institutions are also collecting data related to water. The cooperation and exchange of environmental information among governmental institutions is still poor. Until now data are collected and stored in the Water Cadastre on paper, assessment of data and evaluation of collected data is not happening. Currently the Ministry of Environment is working on digitizing existing data. However, The State Water Cadastre does not contain all relevant data and is available to neither all stakeholders involved in the water sectors nor to the public.

State Ecological Inspectorate (SEI)

The State Ecological Inspectorate performs State control regarding compliance with environmental legislation requirements, State ecological expertise and issues the authorizations in respect of emissions into the air, concerning the special use of water and for waste management and recycling. The Inspectorate's territorial units (4 ecological agencies in Chisinau, Balti, Cahul, and UTA Gagauzia and 31 ecological inspections in rayons/districts) issue authorisations for emissions into the atmospheric air, waste disposal and recycling. The authorisation is issued for 5 years.

The State Ecological Inspectorate issues authorizations for the following domains:

The Central body of the Inspectorate issue authorizations for the special use of water including:

- Water intake from Nistru and Prut;
- Underground water intake with the volume higher than 1 mln m3/year;
- Functioning of biological waste water treatment plants with the capacity of 400 m3/day and more;
- Use of filtration fields;
- Water users, who receive the first coordination of the normatives of limited discharge values, based on the project documentation;

The central body of the SEI examines, approves the normatives for the Emission Limit Values (ELVs) and based on them issues the authorisations for emissions of pollutants in the atmospheric air:

- For the economic activities with summary emissions above 50 t/year;
- For the economic activities with summary emissions above 50 t/year based on the project pollutions, for the first year of activity;
- For new economic activities with summary emissions above 50 t/year based on the design documentation, for the first year of operation.

The Rayonal Ecological Inspections approve the normatives for the Emission Limit Values (ELVs) and based on them issue the authorisations for emissions of pollutants in the atmospheric air:

- For the economic activities with summary emissions less than 50 t/year;
- For the economic activities with summary emissions less than 50 t/year based on the project design documentation, for the first year of activity.

Waste management – for the economic agents, which undertake waste collection, storage, treatment, transmission for secondary use etc.

In addition, the SEI possesses general data through its territorial agencies and rayonal inspections which cover the following

- Number of companies, which have authorisation for emissions into air;
- Number and state of the POPs contaminated sites, update of the national inventory (according to the existing inventory form)
- Number of controls of the POPs sites;
- Number of municipal wastes landfills, surface, volume of waste, cases of burning (period, volume of air pollution etc.)

The Central Laboratory of SEI, in the Chisinau Ecological Agency, has monitoring data (air, soil or water quality) in case of environmental pollution or accidents, involving POPs substances (for the national level).

The list of all authorised economic agents is available at the State Ecological Inspectorate (SEI) and territorial ecological inspections. The data on the volumes and number of enterprises/installations are included in the Annual Report of the SEI.

SEI is also responsible to assist with the Annual Statistical Reports on the emissions into atmospheric air, water and wastewater discharges, as well as and on waste, municipal wastes landfills, surface, volume of waste. (See more details below.)

Agency for Geology and Mineral Resources

The Agency for Geology and Mineral Resources is the central administrative authority specialized in the exploration, monitoring, regulation and control of the use of mineral resources in order to implement State policy on geological exploration, the rational use and protection of subsoil. The agency keeps the data on mining and use of underground mineral resources.

Agency "Apele Moldovei"

The "Apele Moldovei" Agency is the administrative authority in charge of the development and implementation of State policy on water resources management, hydro-amelioration (land improvement) and water supply and sanitation. The Agency 'Apele Moldovei' also holds a database on water use and discharges.

Sustainable POPs Management Office, WB/GEF Project, MoE (www.moldovapops.md) possesses databases on contaminated sites and on PCB, as well as information on implemented projects, including project reports and developed documents.

The Environment Pollution Prevention Office of the MoE (www.eppo.md) is in charge of supporting the MoE in drafting chemicals and waste related legislation and regulations, develop and implement related projects (SAICM, UNDP, etc. It also manages a database on wastes and landfills.

The EPPO has been involved until now in following chemicals management and PRTR issues on the international level. Recently it has developed and submitted a project proposal to SAICM on "Strengthening capacities for the development of the national Pollutant Release and Transfer Registers (PRTR) and supporting SAICM implementation in two countries with economy in transition: the Republic of Moldova and the Republic of Macedonia". It is planned that in the Republic of Moldova, the Environmental Pollution Prevention Office (EPPO) will be the main entity responsible for project implementation and for ensuring project execution in a partnership between the government officials, civil society organization, international and local experts assigned to the project. (See more details below.)

The Climate Change Office of the MoE (www.clima.md) is responsible for the development of the reports to the UNFCCC, based on emission calculation.

The Ozone Office (www.ozon.md). The Ozone Unit created through the Minister's order nr. 27 on April 7, 1999, is:

- Coordinating the process of implementing the Action Plan aimed at a gradual phase-out of ODS in the Republic of Moldova;

- Monitoring the implementation of the NP, conduct and accomplishment of the Refrigeration Management Plan and the Program for the recovery/recycling of refrigerants;
- Monitoring results of gradual phase-out of ODS and development of appropriate reports concerning the gradual phase-out of ODS in Moldova and presenting them to the Government of Moldova, UNEP and other international bodies.
- Collecting and preceding the statistical forms on ozone depletion substances import and use, equipment in use, etc.

The National Institute of Ecology and Geography

The Institute of Ecology and Geography is a scientific institution which is also subordinated to the Academy of Sciences of the Republic of Moldova. Other sectorial Ministries involved in environmental management, to varying extents and depending on their mandates, also work with Institute. It carries out research and development activities in the field of environment; contributes to the development of the State of Environment report (each 4 years) and its experts participate as members in working groups of different conventions.

Three other line Ministries and the National Bureau of Statistics have also activities or data/information regarding the PRTR:

The Ministry of Health, National Centre of Public Health

As the central public administration authority for health is responsible for:

a. initiating and promoting, together with other competent authorities, specific normative acts regarding health protection and evaluation and control of risks for humans of hazardous chemical substances and mixtures;
b. issuing authorizations for production, import, sale and use of biocidal products;
c. organizing scientific research regarding the toxicology characteristics of the hazardous chemicals and mixtures;
d. identifying and assessing hazardous chemicals and mixtures which affect human health at the request of chemical manufacturers and importers.
    - Based Occupational health data (agriculture, industry, energy sector), impact of toxic chemicals, of POPs/PCBs;
    - Residual concentrations of toxic chemicals, including POPs in drinking water, or in drinking water sources;
    - Residual concentrations of toxic chemicals, including POPs in food products (agricultural products, fruits and vegetables, dairy products, fish etc);
    - POPs in human body (breast milk etc);
    - Statistics on poisoning with toxic chemicals and POPs;
    - Residual concentrations of toxic chemicals and POPs in soil;
    - Chemicals concentrations in the air of the working areas;
    - Data on morbidity, caused by toxic chemicals effects;

- Data on evaluation of the risks of chemicals impact on human health.

on the above, it collects data in the following related areas:

The Ministry of Agriculture and Food Industry (MAFI)

MAFI is responsible, among others, for developing and implementing a public policy for the sustainable development of the country's agriculture and agribusiness sector, and ensuring food sufficiency and safety. Within this framework, among others, the Division on Plant protection and safety of vegetable products has information and data on the obsolete POPs pesticides warehouses, the volume of repackaged and centralized stored POPs pesticides, the volume of eliminated POPs pesticides and the resources, planned from the state budget or external sources for the solving of the POPs problem. At the same time the Section on Genetic Animal Resources has the information on the producing companies and number of chicken, pigs and cows, livestock.

The central public administration authority for agro-industrial area issues authorizations for production, import, sale and use of phytosanitary products and also organizes research regarding the impact of phytosanitary products and fertilizers on agrocenoses. The unit, responsible for the intensive livestock production is the Division for the policy of production and regulation of quality of the animal products, Section on genetic animal resources. Other sub-divisions of the MAFI which have relevant data include: the Pesticides Laboratory (Centre of Certification of Phytosanitary Products) and the Agrochim Laboratory.

The Ministry of Economy, State Energetic Inspectorate has data and information regarding PCBs and the number of holders and users of equipment, as well as the measures for disposal.

The National Bureau of Statistics (NBS)

The Central statistical body is an administrative authority prepares statistical information, in compliance with the international practice based on the statistical reports submitted by economic agents yearly, according to the established deadlines. (http://www.statistica.md/category.php?l=en&idc=99&)

The reporting formats are approved by the NBS Order in December each year. Reporting formats are printed and disseminated in paper copy to the economic agents from the lists in all rayons.

As a result of the reporting, the NBS is an important source of data and information obtained through the statistical environmental forms. These are as follows:

- Volume of toxic wastes - statistical report, provided by economic agents;
- Emissions of toxic substances into atmospheric air (statistical reports on the volume of the emission into air);
- Air pollution in the localities of Moldova (selection on POPs/PCBs/ PCDD/PCDF);
- Statistical data on wastes collection and recycling;
- Number of municipal wastes landfills, surface, volume of waste;
- Water use and waste waters discharges (by a number of selected pollutants);

- Geological works, mining;
- Communal services (municipal wastes collection and transportation to landfills);
- Other related environmental series annual reports (pesticides use in agriculture, breeding of animals in agriculture, etc.)

It has been indicated during several evaluations that in practice, most of the statistical reports do not correspond to the UNECE requirements or collect too much data or indicators, part of which is not used for policy making of reporting. As the statistical reporting is currently the most significant way of obtaining data and information, it should be examined whether and how this could be used for the PRTR reporting purposes. (See more details below in Chapter 3 and 4.)

The experts of the Academy of Science are involved in research and development activities in the field of POPs. The **Laboratory of the Institute of Geology (GEOLAB)** has data/information on **t**oxic chemicals in soil and water, in agricultural and food products; heavy metals, POPs contaminated sites monitoring data, repeated monitoring; and on monitoring of new POPs.

The current institutional set up is presented in the Overview of the current status of development of PRTR and implementation of the PRTR Protocol in Moldova, November 2015 (Annex 2).

The new Government of the Republic of Moldova (January 2015) announced and intend to carry out a broad general institutional reform within the governmental structures. The Ministry of Environment has plans to establish the Environment Protection Agency. Among the major functions of the Agency the establishment and maintenance of Environmental Information System, part of which is the National PRTR System is also included.

In January 2016, after an inter-ministerial consultation process, the Inter-ministerial Working Group on PRTR was established and approved by the Order of the Minister of Environment. The major functions of the Working Group include the coordination of the process of establishment and operation of the PRTR System in Moldova, as well as the discussion on the proposed draft general legal provisions and the draft Regulation on PRTR.

2.2. The necessary institutional conditions for the setting up and the operation of a PRTR

The following main institutional structures and responsibilities need to be in place according to the requirements of the PRTR Protocol:

A Competent Authority should be nominated

The nomination of competent authority[11] is crucial, as this will be the institution which will be in the first place responsible for the setting up and operation of the PRTR, as well as ensuring the

[11] "Competent authority" means the national authority or authorities, or any other competent body or bodies, designated by a Party to manage a national pollutant release and transfer register system. See PRTR Protocol, Article 2.5, Definitions.

coordination with other relevant units and institutions within and outside the competent authority. This authority should also be responsible for complying with the obligations under the PRTR Protocol and other international obligations, in case Moldova commits for implementing the E-PRTR Regulation. These include the preparation and public availability of the yearly national PRTR report, submission yearly of this report to the EEA to the EU level E-PRTR system, as well as participating in the bodies under the Protocol and complying with its reporting requirements (e.g. national implementation reports on the Protocol every 3 years before the Meeting of Parties.)

According to the Law on Ratification of the PRTR Protocol, the Ministry of Environment is has been nominated as the Competent Authority. However, within the MoE a responsible unit (further called as PRTR unit), will need to implement the tasks and responsibilities. It is necessary to decide, which will be the most appropriate structure for collecting and registering the data on pollutant releases and transfers, and ensuring that these data are publicly accessible.

Within the proposed PRTR unit, one official should be nominated who will act as national PRTR Focal Point, as contact point for PRTR activities at national and international levels. The PRTR unit should have the proper human and other resources to accomplish the related tasks and responsibilities within the unit or involving these resources from other units. Also, efficient inter-agency coordination should be maintained through the operation of the already established inter-ministerial working group. (See more details under Chapter 4.)

Appropriate system for enforcement in place

This task will need to be carried out by the Competent Authority and through its enforcement structures. The obligations of self-reporting by operators will need to be enforced including the valid and accurate data submission, meeting reporting date, etc. (See more details in Chapter 4.) This task could be taken up by the State Environmental Inspectorate or the future Environmental Agency under the coordination of the PRTR unit.

Collection, validation and management of data based on a new reporting procedure

Tasks and responsibilities will include:

- Collection of data submitted by owners or operators of reporting facilities (point sources)

The data from the owners or operators will need to be submitted to the Competent Authority **according to a new reporting procedure.** Ultimately, the PRTR unit within the Competent Authority should be responsible for data collection but it is possible other departments or authorities within the MoE and these departments or authorities will forward the data to the PRTR unit.

- Assessment of the quality of the data collected in terms of completeness, consistency and credibility

These tasks are usually carried out by the PRTR unit, with the assistance of other units or experts from other units or outside contractors who have the information and knowledge about the situation of the respective media and reporting facilities (e.g. authorities in charge for permitting, monitoring the compliance with the permit conditions, enforcement agency, State and Territorial inspectorates).

- Collection of information on releases of pollutants from diffuse sources

Given the specifics of these pollutants, under the coordination of the PRTR unit, this information will need to be obtained from other relevant units under the MoE or under other ministries, agencies (e.g. dealing with climate change, GHG, transport, agriculture, National Statistical Bureau, etc.)

- Development and management of a register comprising a structured, computerized database (able to maintain data for ten reporting years)

Under the coordination of the PRTR unit, a database should be designed, developed and maintained by the IT expert/s, comprising of all the PRTR data (including emissions to air, water, soil, wastewater and transfers of hazardous and other waste, and including point as well as diffuse sources, increasingly).

The design of the database should take into account that the data will be submitted by different units within the Competent Authority (MoE), based and by other ministries based on a unified and harmonized methodology and technical parameters. It may allow also that data may be imported from other databases, or link could be established with other databases. See further details about the database development under Chapter 4.

- Dissemination of information and training for the relevant staff

The dissemination should happen mainly electronically through a PRTR web portal which should be linked with the PRTR database. The PRTR web portal should be developed allowing a user-friendly, easily understandable public presentation and access to the PRTR data. For those having no access to electronic means, at least the yearly PRTR reports should be also made available in hard copies, in form of publication.

These tasks should be carried out under the coordination of the PRTR unit, by the IT expert/s (design, development and maintenance of the web portal). Training for the relevant staff and preparation of information materials should be carried out by and under the coordination of PRTR unit (with publishing assistance).

Unified methodologies should be used for collecting and validating the data, in order to achieve a well-functioning register.

Awareness raising and capacity-building

Tasks and responsibilities will include:

- Promotion of public awareness of the national PRTR and provision of assistance and guidance in accessing and using the PRTR information as well as capacity-building and guidance for the responsible authorities for carrying out their duties under the Protocol

Different promotional and broader awareness raising activities should be carried out using also the web portal, events, promotional materials and publications, etc. Assistance to the broader public and stakeholders as well as for operators and NGOs should be provided (online and phone assistance, and guidance provided on how to use PRTR). Trainings, workshops should be organized and technical and other guidance materials should be prepared for the staff of Competent Authority and for other involved authorities.

The tasks should be carried out under the coordination and guidance of the PRTR unit, with the involvement of PR and IT experts of the MoE or involving outside experts/consultants.

Ensuring access to information; confidentiality; access to justice

Tasks and responsibilities will include:

- Structures should be in place for provision of information to the public on request and facilitation of electronic access to the register in publicly accessible locations (where the information is not easily accessed by the public by direct electronic means)

Written, online and phone information requests should be answered by the PRTR unit or the Public Information Service of MoE if already existing, under the coordination of the PRTR unit. Outreach via electronic access should be ensured with links to other easily and publicly accessible points where the public may access the register.

- Processing of requests for keeping certain information confidential, including taking decisions on when information can be excluded

Under the coordination of the PRTR unit, by the staff of unit or with the help of legal experts of the MoE requests by operators for keeping certain information confidential, should be decided. Information requests by the public should also be processed, decided and answered. In case of withheld confidential information, the generic information on pollutants should be provided.

Ensuring public participation

Tasks and responsibilities will include:

- Provision of information and opportunities for public participation in the development and significant modification of the national PRTR, taking due account of the comments and

information to the public when a decision is taken to establish or significantly change the register

Under the coordination or by the PRTR unit, or with the involvement of the MoE's section responsible for Public Participation, regular information should be provided to the public mainly via electronic means, and consultations should be organized for the NGOs, operators and other stakeholders on the development of the PRTR or in case of significant modifications are proposed. This could take the form of regular consultations, meetings, commenting opportunities via electronic means, and/or establishing a working group including the representatives of the NGOs, operators, and other stakeholders. Information should be provided to the public of the decision/s taken.

2.3. Proposals for establishing the necessary institutional framework for national PRTR

Based on the current institutional framework, the expected institutional reform which is under way, and the above described tasks and responsibilities, the following proposals are made for the establishment of the necessary institutional framework for setting up and operation a national PRTR:

Option 1:

In case the institutional reform will take longer than expected and the draft Law on Environmental Protection or the draft Law on Access to Environmental Information and the Regulation on PRTR will not be adopted by the time the PRTR should be established (end of 2017 or 2018), one of the current divisions under the MoE should take the responsibility of the PRTR unit, until the new institutional structure will be in place.

It is proposed that in this period the Pollution Prevention and Waste Management Division of the MoE, should serve as the PRTR unit, including the person nominated as National PRTR Focal Point (NFP). The PRTR unit should consist of a 3 experts who would work under the coordination of the PRTR Focal Point, with support from other MOE units.

Given the description of the necessary tasks and responsibilities to be carried out under the Protocol:

- All relevant data reported by the operators (economic agents) as well as the relevant sub-divisions of the MoE collecting data (SEI, Hydrometeo, AGMR, Agency Apele Moldovei, Forest Agency Moldsilva, the project offices), and other ministries, institutions should be submitted to the PRTR unit and NFP, according to the agreed forms and periodicity;

- The established inter-ministerial PRTR coordinating group (PRTR inter-ministerial Working Group) should efficiently operate to ensure that data collected under the MoE and other

ministries or institutions is all available (which would function based on an agreed terms of reference prescribing the role and functions of the different relevant participants, including related to data collection, validation, quality check);

- The data will be collected under the coordination of the NFP in collaboration with the PRTR inter-ministerial Working Group (some of the data could be collected directly by the NFP and other data would be collected by other departments of the MoE or other ministries, institutions and provided to the NFP);

- A PRTR reporting tool and database should be developed under the coordination of the PRTR NFP in order to facilitate the data collection and access; (See details in the next chapter)

- The NFP will be responsible for developing the necessary reports at the national and international levels based on the data submitted by the reporting facilities and other ministries or institutions, in cooperation with the PRTR inter-ministerial Working Group;

- Validation and quality control of the reported data should be made under the coordination of the NFP by those departments which have related data or information (such as State Hydrometeorological Service, SEI, other relevant departments and project offices, etc.);

- Yearly national PRTR reports will be made available through a PRTR web portal (See details in the next chapter) and submitted to the EU E-PRTR (to EEA);

- The reports can be commented publicly by operators, NGOs and other stakeholders;

- The PRTR NFP should be in charge for the necessary public access to information and public participation tasks mentioned above (in Chapter 3.1.2) or these should be carried out under his/her guidance and coordination by the MoE section responsible for Public Participation.

- The **National Environmental Reference Laboratory** should be established under the State Hydrometeorological Service, as the Integrated Environmental Monitoring System, covering the environmental monitoring (air, water and soil), is planned to be coordinated by this institution. This laboratory will be needed to assist the operators with the measurements of pollutants and validation. (See more in the Chapter 4.)

- The server with PRTR database could be placed at the State Ecological Inspectorate, maintained and updated, and links to the PRTR portal should be indicated on the web site of the MoE and IES.

- Reporting from operators should be linked with e-Governance initiatives on electronic statistical reporting, and linked with fiscal and other reporting and cross-checking systems.

Option 2:

If the expected institutional reform will progress faster, the following option is possible:

- If the planned Environmental Protection Agency (EPA) will be set up in the next 2 years (as proposed), it would be the most appropriate to place the Competent Authority, the PRTR unit including the NFP, in this Agency. Usually this Agency is responsible for collecting, managing and processing the data submitted under the different reporting obligations, permitting procedures, for operating an integrated environmental information system, as well as for executing the measures set by the national environmental policy and legislation.

According to the draft Law on Environment Protection, (Art.169-170) and the Program of Activity of the Government for 2014-1015), the MoE intends to establish the Environmental Protection Agency (EPA). The draft law was planned to be finalised and submitted for approval by the end of 2013, and the creation of the Environmental Protection Agency was foreseen to take place earliest at the end of 2014 or in 2015. However, this was delayed and now it could take place only in 2016-2017.

Based on the above developments:

- It is proposed that the PRTR unit and the PRTR NFP should be established under the EPA as a separate unit.

In this case, the process of the setting up and operation of PRTR will be carried out the same way as mentioned above under Option 1, with the exception that the PRTR unit will be located in the EPA.

The database on PRTR should be placed and maintained on the server of the EPA, and the data and reports could be presented on the EPA website via the PRTR web portal. A link should be made also from the MoE web site.

The institutional structure for the national PRTR and for the dataflow is presented as based at the EPA.

2.4. Conclusions and proposals

Conclusions:

The current institutional framework under and outside the MoE has serious flaws and inefficiencies. The institutional framework is fragmented and does not have at the moment the necessary responsibilities and competences for PRTR. The data and information is dispersed among the different departments and institutions, and due to departmental interests, there is no clear and well operating data exchange system on pollution information, especially in the field of chemicals and transfer of wastes.

On the current setup there are overlaps in certain fields, while there is no proper coordination in other fields. For example, currently water issues are covered in various departments, but there is

no clear responsibility for the air protection and governance in moment in the MoE. Chemicals management is dispersed among 10 different agencies.

The environmental, health and agricultural authorities, due to departmental interests, do not have a clear and well operating information and data exchange systems currently on pollutant releases and transfers, especially in the field of chemicals and transfer of wastes, as well as monitoring.

The data and information is dispersed among the different departments and institutions, and it is difficult to access as well as to use for decision-making regarding pollution prevention and reduction, making it accessible to the decision-makers and the public. While there are numerous units obtaining or holding certain data and information, there is no detailed and complete picture about the overall status of the pollution in the country or in the various sectors.

The lack of proper institutional framework and the existence of numerous non-compatible data collection obligations and thus different non-compatible databases maintained by a variety of departments, units, authorities or institutions, makes difficult to develop a well-functioning PRTR. There is a need for better coordination among the different departments and institutions under the MoE and other authorities, the better integration of measures and efforts, as well as capacities and resources.

These difficulties in general have already been recognized. The first steps have been taken with the adoption of the Plan of Actions for the Implementation of Aarhus Convention for the period 2011-2015, outlining the proposed measures and necessary actions. The pending legislative process of adoption of the National Environmental Strategy, the new Law on Environmental Protection and related legislation, and the planned institutional reform will change the current institutional setup.

The draft Law on Environmental Protection in case adopted, will establish new principles of the operation and also, a new institutional structure for the central authority responsible for environment protection. According to this, there will be three main branches:

- Central body acting as a policy making branch;
- Environmental Protection Agency acting as an executive branch;
- Environmental Inspectorate acting as a control and monitoring branch.

This approach will help to avoid the overlap of the responsibilities within the Ministry and set clear goals for each body, and provide for an integrated, more efficiently organized structure.

Proposals:

All this underlines the need of better coordination among the different departments and institutions under the MoE and other authorities, the better integration of measures and efforts, as well as capacities and resources.

Regarding the setting up and operation of a PRTR, the establishment of an integrated reporting procedure is proposed resulting in the proper information or data flow. The most efficient way is to

designate a single competent authority in charge which will also collect the data and manage register, based on an integrated database of pollutants and releases. The PRTR database could be also a subset of a broader integrated environmental information system which could support also more efficient environmental policy-and decision-making as well as enforcement measures.

It is however, not clear how fast the institutional reform process will proceed and what will be the exact outcomes. These outcomes could be crucial also for creating the necessary institutional framework for the coordination of developing and operating the national PRTR system.

3. OPERATIONAL CONDITIONS (ADMINISTRATIVE AND TECHNICAL INFRASTRUCTURE) NECESSARY FOR SETTING UP AND OPERATING A PRTR

3.1. Requirements for PRTR reporting

Apart from the legislative and institutional framework, the administrative and technical conditions for the setting up and operation of the national PRTR should also be defined.

The competent authority should be in charge for designing and operating the PRTR, including the management of the PRTR, the data collection and enforcement of reporting obligations. These will depend on what will be the scope of the register, and how the reporting process and database will be set up.

For this purpose it is necessary to:

- Define the scope of the register;
- Setting up the reporting procedure for collection of data:
  - Designate what point sources will be subject to mandatory reporting;
  - What data/information needs to be reported and in what format;
  - How diffuse source reporting will happen;
  - Create a reporting form;
- Define the reporting cycle and the deadlines for requiring the reports from the facilities;
- Collect data from facilities and different divisions of the MOE or other ministries;
- Validate the data (assess the quality of the data collected in terms of completeness, consistency and credibility) including communication with the facilities and relevant authorities;
- Develop and manage an electronic database;
- Create a web portal;
- Present the data/report/information on the PRTR web portal
- Enforce the reporting obligations.

As a first step, the scope of the PRTR should be defined:

Defining the Scope of the national PRTR

When establishing a national PRTR, a decision should be made on the scope of the Protocol and the reporting requirements set by the Protocol should be examined, and should be adapted to the country conditions and implementation experiences.

For the PRTR purposes data usually is collected in the register through a mechanism based on either the requirements of environmental permits, or obligatory reporting and self-monitoring of the facilities. The Protocol's in Art. 3.5 also says that " to reduce duplicative reporting, pollutant release and transfer register systems may be integrated to the degree practicable with existing information sources such as reporting mechanisms under licenses or operating permits."

In the EU countries, for example, the PRTR is linked with a reporting obligation under the **integrated permitting and control systems (IPPC)**. **One possible way** for Moldova would be also to develop the PRTR together with the introduction of this permitting system. If Moldova does not plan to introduce this in the next 3-5 years, **another option** could be to introduce specific reporting system based on the PRTR Protocol's requirements, until the IPPC system will enter into force, which could gradually converge with the IPPC system. (The Annex I and II of the PRTR Protocol are largely based on the IPPC Directive as mentioned before, although it contains some more activities and substances.)

Both of these would need significant changes in the current Moldovan reporting system as it is not conform to the PRTR reporting standards except the reporting on urban wastewater. But as the new legislation on air, water and waste (hazardous and other waste) will be introduced these should include the necessary requirements.

In case the country establishes the national PRTR first, it has to check systematically the list of activities and pollutants, as well as the thresholds, and define which facilities[12] should be under reporting obligation.

- In order to establish the PRTR, the **reporting procedure needs to be structured according to the Protocol**'s Annex I and II. To this end:

    - An activity list has to be developed in line with Annex I of the Protocol.

Currently no such list exists in Moldova which groups activities according to the same industrial and agricultural activities and sectors.

    - The Annex I thresholds must be reviewed and taken into account.

The Annex I includes production capacity thresholds for industrial and agricultural activities (i.e. installations, livestock production) within sectors, - the approach used in Europe. The facilities carrying out activities above this threshold should be included in the list of facilities obliged to report. In some categories where no capacity thresholds are given, all facilities should report.[13]

    - The Annex II, list of pollutants, must be reviewed and taken into account.

[12] The Protocol defines a facility as "one or more installations on the same site, or on adjoining sites, that are owned or operated by the same natural or legal person".

[13] In some countries (such as the US and Canada) mostly another approach has been used: regarding the activities in annex I, the number of employees thresholds and regarding the pollutants in annex II, the pollutant manufacture, use or process (MPU) thresholds are used. The Protocol being a global instrument includes both of the approaches and allows for the choice.

Under Annex II, the releases of any pollutant exceeding the thresholds specified in Annex II should be reported regarding air, water and land as well as off-site transfer for pollutants in wastewater, and for transfer of waste and hazardous waste. [14] These thresholds do not exist at the moment in Moldova.

- Diffuse source pollution needs to be included for those areas where the data are already being collected by relevant authorities and can be practicably included.

- Attention should paid to the already existing reporting obligations under the national legislation or international agreements, and also these needs to be checked whether they are carried out according to the PRTR Protocol's requirements regarding the thresholds for activities and for the pollutants.

- In case in addition to the PRTR Protocol, the E-PRTR regulation will be also implemented, the activities and pollutants should be included, as mentioned before.

- It needs to be also decided whether additional activities or pollutants should be added or thresholds should be lowered to meet the priority pollution problems of the country. The Protocol and the E-PRTR regulation along with the IPPC directive were developed to cover and provide information mainly about the large scale industrial activities causing the biggest pollution. Some of these thresholds may be too high for Moldova. Parties also may decide to go beyond these and cover additional activities and pollutants which may have relevance for the pollution situation of their country.

Moldova is more an agricultural country which does not have too many large industrial activities. However, the activities which may have relevance for point sources include[15]:

- extractive industry to manufacture construction materials and limited mining of gas and petrol, and two small refineries;
- power plants;
- metallurgical, glass, paper and cement industry;
- textile, shoe and carpet industry; perfumery, cosmetic and washing products plants;
- pharmaceuticals and medical products factories and others;
- wine production and processing of agricultural products.

There are also enterprises specializing in the manufacture of rubber and plastic products. The industrial sector is not so developed but depends of import of materials and goods, including chemicals. The main chemicals imported into the country recently have been the following: petroleum products, fertilizers, pesticides, biocides, diverse raw materials, chemical products and substances for the manufacturing industry and for other industries. A narrow range and relatively

[14] "Releases", according to the PRTR Protocol, means any introduction of pollutants into the environment as a result of any human activity, whether deliberate or accidental, routine or non-routine, including spilling, emitting, discharging, injecting, disposing or dumping, or through sewer systems without final waste-water treatment.
"Off-site transfers" means the movement beyond the boundaries of the facility of either pollutants or waste destined for disposal or recovery and of pollutants in waste water destined for waste-water treatment. Waste water means used water containing substances or objects that is subject to regulation by national law.

small volumes of chemical products are manufactured in the country (up to 1000 t/year – pharmaceutical products, detergents and ether oils; in between 1000 and 10000 t/year – polishes and paints). The majority of the national economy needs for chemical substances and products are covered from imports. Huge volumes are registered for import of phytosanitary products and fertilizers, different raw material, products, and substances for processing industry and other industries.[16]

Climate change as a global problem which may influence essentially human development in the near future are also important for Moldova. The priority areas for the country in this context would be the ecosystems, population health, agriculture, and industry sectors. The agriculture and industry represent major environment pollution sources due to the huge quantities of used chemicals, generated waste and air pollution emissions. The air quality in the Republic of Moldova is influenced by the releases from the industrial plants, thermal power stations, operating boiler shops, road, railroad, and air transportation means, agricultural machinery, and cross-border pollution.

Based on the comparison of the Protocol's Annexes I and II on activities and substances and their relevance for Moldova, in Annexes III and IV of this study, and as result of two questionnaires, sent to economic agents by EcoContact through the Ministry of Environment (t first time in 2014 and second time at the end 2015) - approximately 113 facilities have been identified for reporting on points source pollution. Accordingly, 43 substances/pollutants, according to the Annex II of the Protocol, have been identified as reported currently under the environmental statistical reporting.

Among the largest facilities the following could be mentioned: the Chisinau Power Plants, Waste Water treatment plants, Cement Kilns, open sand and stone mines, a number of pork and chicken production companies.

At the same time, not all relevant companies responded during the first and second stages of questionnaires, as it was not an obligatory procedure, and it took place in both cases during a very sensitive and unstable political situation in the country, change of government, street manifestations etc. The Ministry of Agriculture and Food Industry provided only the list of companies, which exceed the Protocol thresholds, but they did not indicate the volumes of production and volumes of emissions, referring to the confidentiality provisions of a number of legal acts. This has to be addressed and covered at the next stages of PRTR system establishment. See Annexes III and IV of the study.

Due to the volumes and composition of the pollution and the impact on environment, the priority attention in the future process of obligatory reporting in order to cover all companies which have not been covered until recently by the voluntary reporting should be focused on wastewater treatment plants (except Apa-Canal Chisinau SA, well covered at the moment), pork meat production companies, and some specific companies producing vine and agricultural products

[16] See: Moldova National Chemicals Management Case Study Report (2006-2007), National Profile on Chemicals Management in the Republic of Moldova (NPCM - 2008) and National Situational Report on Sound Management of Chemicals (2012)

(Cricova SA, Orhei-Vit SA, Perfect SA, big transporting companies (urban and inter-city bus transportation, tracks etc). Special attention need to be put in the future on waste collection, transportation and waste management companies (municipal or private).

Based on the existing information, companies could be divided by environmental components (air, water, soil etc.) or activities (power generation, cement, waste water treatment). Priorities will be for air and water pollution from this mentioned sectors.

At the same time, as demonstrated by the completed questionnaires, the biggest pollution comes from the power plants (energy sector), cement plants, waste water treatment plants and pork meat production; therefore these sectors and companies have to be in main focus of the PRTR establishment process. During the 2013-2015 years, all major power plants, cement plant (Lafarge), Chisinau Apa-Canal attended almost all events related to PRTR establishment. They also completed the voluntary electronic questionnaires which indicate a high level of understanding and commitment to participate in the process.

A special attention would be needed to cover the main companies from the left bank of the Nistru River (Transnistria region) as well, such as the metallurgical company, the cement company, the Cuciurgan Power Plant, the WWTPs in Tiraspol and Bender, etc., due to the significant transboundary air and water pollution. If possible, the list of companies could be completed with them, and activities should be expanded to cover the entire territory of the country.

Taking into consideration the above mentioned, the PRTR development and implementation could start with less activities and pollutants, but most polluting/priority ones, and gradually the number of activities and pollutants should be increased, adding the missing/not covered ones.

3.2. Establishing the reporting procedure

When establishing the reporting procedure, the competent authority needs to define in details what information needs to be reported and in what format and what will be the reporting cycle and deadlines for reporting. The basis for PRTR reporting will be the facility[17] which should submit data according to the requirements set in the national legislation (and in accordance with the Art. 7-10 of PRTR Protocol regarding these).

[17] The Protocol defines a facility as "one or more installations on the same site, or on adjoining sites, that are owned or operated by the same natural or legal person".

Article 7, paragraph 5 – Facility-specific reporting requirements[18]

Each Party shall require the owners or operators of the facilities required to report under paragraph 2 to complete and submit to its competent authority the following information on a facility-specific basis:

(a) The name, street address, geographical location and the activity or activities of the reporting facility, and the name of the owner or operator, and, as appropriate, company;

(b) The name and numerical identifier of each pollutant required to be reported pursuant to paragraph 2;

(c) The amount of each pollutant required to be reported pursuant to paragraph 2 released from the facility to the environment in the reporting year, both in aggregate and according to whether the release is to air, to water or to land, including by underground injection;

(d) Either:

(i) The amount of each pollutant required to be reported pursuant to paragraph 2 that is transferred off-site in the reporting year, distinguishing between the amounts transferred for disposal and for recovery, and the name and address of the facility receiving the transfer; or

(ii) The amount of waste required to be reported pursuant to paragraph 2 transferred off-site in the reporting year, distinguishing between hazardous waste and other waste, for any operations of recovery or disposal, indicating respectively with "R" or "D" whether the waste is destined for recovery or disposal pursuant to annex III and, for transboundary movements of hazardous waste, the name and address of the recoverer or disposer of the waste and the actual recovery or disposal site receiving the transfer;

(e) The amount of each pollutant in waste water required to be reported pursuant to paragraph 2 transferred off-site in the reporting year; and

(f) The type of methodology used to derive the information referred to in subparagraphs c) to (e), according to article9, paragraph 2, indicating whether the information is based on measurement, calculation or estimation.

In order to ensure consistency, the information to be submitted by the facilities should be defined also in a **reporting format** by the competent authority. Such formats already exist and have been developed under the PRTR Protocol, the EU E-PRTR system and different countries, and can be adapted to the national needs.[19]

The PRTR Protocol requires that **reporting cycle** for the parties should be on an annual basis. The information should be incorporated in the PRTR register, be publicly available, compiled and presented on the register by calendar year. The Protocol requires that the data should be incorporated into the register **within fifteen months** from the end of each reporting year. This means that within this time, the data should be reported to the competent authorities, verified by them, incorporated in the register and should be also shown in a publicly accessible website. However, this is a maximum deadline and many countries have much shorter reporting deadlines.

[18] See PRTR Protocol, Article 7, and Guidance on the Implementation of the PRTR Protocol, page 59.

[19] See for example in the Guidance on the implementation of the PRTR Protocol, the Guidance on E-PRTR or forms of different EU countries.

The aim is to provide the public as up-to-date information as possible. Therefore, according to the good practices, the data about the previous year in many countries usually should be reported by the end of March or April of the following year. The competent authorities check and validate the data in the next 3 or 6 months. Data about the reported (previous) year could be incorporate and shown on the register either from July 1st or Sept. 1st of the next calendar year.

For those parties which need to establish the reporting system and the register, the Protocol allows a one year gap between the first and the second reporting year in case they would need more time for the preparation.

As seen above, the facilities when submitting the data need to indicate what method they have used for determining the releases and transfers to air, water and land. The main determination methods include:

> (a) Measurements using standardized or accepted methods; often, additional calculations are needed to convert the results of measurements into annual emission data;
> (b) Calculations using nationally or internationally agreed estimation methods and emission factors, which are representative for the industrial sectors;
> (c) Estimations (non-standardized) derived from best assumptions or expert guesses.[20]

The facilities should use the best available information, which may include monitoring data, emission factors, mass balance equations, indirect monitoring or other calculations, engineering judgments and other methods. This should be done in accordance with **internationally approved methodologies**. Description of methods can be found in different documents such as: the IPPC BREF documents, the Guidance on the implementation of the PRTR Protocol, the Guidance on E-PRTR and other documents published by UNITAR, OECD, etc.

For the diffuse source reporting, in addition to the Guidance on the implementation of the PRTR Protocol, among others, the UNECE Convention on Long-Range Transboundary Air Pollution (CORINAIR), the UNFCCC and UNITAR prepared different guidance documents.

Nevertheless, the competent authorities should give instructions or guidance to operators on what methods should be followed and preferably provide national language guidance materials.

The competent authority needs to ensure that a **proper data transfer system** is designed to allow the smooth dataflow from the facilities to the authorities and this data is also presented on a publicly accessible website.

For this purpose, it is reasonable that the PRTR data is stored in an **integrated database** either as a separate database or as part of different but interlinked databases which allows that the PRTR data could be easily withdrawn. The PRTR database should be designed to be expandable according to the needs and should allow including additional pollutants or activities over the years. The PRTR

[20] Guidance on the implementation of the PRTR Protocol

data would provide important information for the decision-makers as well, and should be part of the environmental information system.

The **electronic reporting** process instead of submission of reporting via paper form can greatly facilitate, streamline the data collection and also can save significant costs. Parties could use various different software to accelerate and facilitate the reporting which could be established form the start of PRTR reporting. This electronic reporting tool can include built in checks which help with the consistency of data, avoidance of errors, could support quality assessment and control, and is also more cost effective than the paper based reporting. Parties may develop their own database and reporting software but also use and adapt already existing software. (See more below.)

PRTR data should be linked with geographical information to enable the spatial representation of emission data and illustrate in more user friendly and understandable way the information (e.g. for sectors, geographic regions, etc.

The **PRTR database and software** should use open sources and formats such as XML (Extensible Mark-up Language). As it is illustrated in the Guidance on the implementation of the PRTR Protocol, "a relatively simple relational database could be built around the structure as given below. Each emission record contains:

(a) A link to a list of pollutants, containing all properties and attributes of each pollutant, such as:

- Thresholds;
- CAS numbers;
- Global warming potential; or
- Associated types of release;

(b) A link to a list of emission types (emissions to air, emissions to water, offsite transfers of waste water, offsite transfers of waste);

(c) A link to a list of locations that either are:

- Facilities for above threshold annex I facilities; facility properties and attributes are stored in a table "facilities"; or
- Administrative units (competent authorities: municipalities, provinces, etc.); administrative unit properties and attributes are stored in a table "Administrative Units";

(d) Each facility and administrative unit contains a link to a list of source-categories."

In Moldova currently there is no environmental information system but several databases exist or are planned to be established according to different media and projects. It is important that when the PRTR database and software is established, it is harmonized with the other on-going or planned database development activities and projects, and these efforts result in an integrated database.

There is also no electronic reporting in Moldova for the moment. **Statistical Environmental Reporting** exists which is submitted via the SEI on paper basis but it is planned to be transformed into electronic reporting. As mentioned above, although the statistical reporting is not corresponding to the requirements of PRTR and some other UNECE agreements, they could be used in the future if decided so but they need to be substantially changed and harmonized with the PRTR requirements. This option, although not impossible, would be quite complicated process as the purpose of statistical reporting is different and several authorities would need to be involved in the development of a harmonized format which would need to agree. Another option would be to develop the reporting format first of all for the purpose of the PRTR and environmental information system hosted under the MoE, and obtain the PRTR data directly. This reporting form could be also harmonized with the statistical reporting form and the data could also be used for statistical reporting of certain limited type of data.

The software and database could be fully developed by Moldova from the scratch but it is also possible to adapt and use other countries open software which have been already in use and tested for PRTR and E-PRTR reporting. For example, the German free reporting software has been translated, adapted and installed in Macedonia in a cost effective way. In Moldova, the requirements regarding the introduction of a harmonized E-governance approach have to be taken into account which implies that the database development and use of software should be coordinated with the on-going E-governance programme. The programme provides assistance to government authorities in developing databases and software if requested, and support and advice could be also asked from the E-governance Centre if the software of another country is proposed to be used. It is necessary to submit and ask for approval of the concept for the PRTR database and the software used.

In addition to the database and the reporting software, a **web portal** should be also developed to present the PRTR data and related information to the public. This could be a separate web portal, presented with a link on the Ministry website or the web site of the future Environmental Agency.

3.3. Current reporting and future PRTR obligations reporting for owners and operators

The PRTR reporting will require a different approach than before, also from the operators. Currently, in Moldova there are no self-monitoring requirements, only few big operators carry out self-monitoring. For example, the Cement Plant “Lafarge”, in collaboration with Ministry of Environment (National Ecological Fund) have installed an air monitoring station. The monitoring results are presented to the State Hydrometeorological Service. Another example is the Chisinau Waste Water Treatment Plant which has its own laboratory, sending results to State Ecological Inspectorate and health authorities.

On water and air, environmental quality standards from the Soviet time are used, although there has been some progress in the gradual compliance with the international and especially EU standards as well. The air pollution permitting system is based on dispersion calculations. Numerous pollutant substances regulated by the law are mostly unenforceable, as they are far beyond realistic monitoring capacities. In the field of urban waste water permitting, EU standards are used based on EU Directive 91/271/EEC on urban waste water treatment. Emission standards (with the exception of urban waste water treatment plants) are not used for permitting, and the dispersion or dilution calculations are the basis for setting the limits.[21]

The current environmental permitting system does not provide for an integrated approach to pollution control and the use of best available techniques. Self-monitoring requirements are not included in the permits. The SEI monitors enterprises for permit compliance through regular inspections and collects data on air pollution, water pollution and discharge, and waste disposal. The SEI has the role of collection and validation of reports on waste, air pollution and consumption of ozone depleting substances. The reports of economic agents on waste and air pollution are passed later on to the National Bureau of Statistics and reports on ozone depleting substances to the Ministry of Environment.[22]

Every water user and wastewater discharger needs a permit, which defines the extent of water use and sets limits for environmental pollution. Permitting and compliance reviews are conducted by the SEI. SEI summarizes the results of their inspection in an annual report. All registered water users report to the SEI on a weekly, monthly and yearly basis. SEI is in charge of inspecting industries, but no monitoring of industrial pollution sources is carried out. Reliable data on industrial wastewater are not available. The lack of data makes it impossible to assess degradation of surface and ground waters caused by the industrial sector.

There is a system of payments for emissions of air pollutants applied in Moldova that has large number of regulated air pollutants. The number of actually monitored substances is, however, much smaller. There are official emission limit values (ELVs) for each pollutant, which are based on the maximum allowable concentration (MAC) of each substance. The volume of emissions are typically estimated and not measured. The total payments to be made are mainly calculated by enterprises based on their production volumes and technological parameters. These calculations are then checked by the local environmental inspectorates.[23]

Data on management of municipal solid waste are collected by the National Bureau of Statistics. Data are requested from waste collection companies, which report annual waste volumes collected. The legislation does not clearly differentiate between industrial and municipal waste but defines waste from production and consumption. As a result, waste statistics provide information which covers both types of waste. Waste from production and consumption is monitored by the National Bureau of Statistics. Data are requested from economic agents (legal entities and individuals

[21] UNECE Environmental Performance Review, Republic of Moldova, Third Review, 2014, page 30.
[22] As above, page 32.
[23] As above, page 31.

performing economic activities), which report waste amounts (t/y) to local environmental inspectors.[24]

The system of waste statistics, classification of waste is not in line with international practice, such as the Basel Convention and EU, especially in definition of hazardous properties of waste. The current system still uses four toxic waste classes, which are not in accordance with international practice. The inventory of hazardous waste was carried out for POPS and chemicals in international projects.[25]

The current draft laws waiting or adoption (The Law on Environmental Protection, Law on Waste, Law on Air and Law on Water as well as the draft Law on Environmental Information) include provisions on new requirements for reporting on pollutant releases and transfers which - if adopted, - will be in line with the PRTR reporting requirements.

Under the PRTR Protocol, as mentioned above, the reporting unit will be the facility, and the owner or operator of the facility will have the obligations to report.

The owners or operators of the facilities, according to Article 7 of the Protocol, are required to:

- To collect data on the facility's releases and off-site transfers with appropriate frequency (Art. 7 2 and Art. 9.1).
- To keep the records of the reported information available for the competent authorities for five years from the end of the reporting year concerned, including the description of the methodology used for data gathering (Art. 9.1)
- To use the best available information when reporting which may include monitoring data, emission factors, mass balance equations, indirect monitoring or other calculations, engineering judgments and other methods, and where appropriate to use internationally approved methodologies (Art. 7 and Art. 9.2)
- To assure the quality of information reported (Art. 10.1)
- To report to the competent authority.

It is the facility's responsibility to ensure the quality of the data. The competent authority will need to assess and check the quality, in particular its completeness, consistency and credibility and if there are problems, the authority will need to contact the operator and work with him/her to correct the data.

The operators will need to be prepared for this process gradually. In this, the existing international guidelines or guidance materials, or such documents developed by the country's authority may assist the operators. Also, under the Protocol and the E-PRTR Regulation, such guidance materials

[24] As above, pages 101-108.
[25] As above.

exist or may be developed. (See above on page 30.) Capacity building, awareness raising and assistance will be also needed and the motivation of the operators will also need to be created.

3.4. Conclusions and proposals

Conclusions:

- Currently, Moldova does not have in place a mechanism for reporting and data collection based on requirements of environmental permits (e.g. IPPC) or obligatory self-reporting by the facilities for releases and transfers (except reporting on urban wastewater). Instead of separate media reporting, integrated reporting should be required for all media, based on a unified methodology, and dataflow should be kept in an integrated electronic database.

- Under the new legislation on PRTR and air, water, land and waste (hazardous and other waste), the necessary reporting requirements need to be introduced based on a list of activities, pollutants list and thresholds for the production capacity for facilities and for releases of pollutants in line with the Annexes of the PRTR Protocol.

- Only some big companies carry out self-monitoring and measurements, and most use estimation or calculation techniques for reporting on environmental emissions/pollution but these are not done according to the PRTR requirements (including BAT).

- Only limited number of enterprises provides currently statistical data on emissions and waste, there is no full list of enterprises which are required to report on this at the SEI, no database is established, etc.

- The major data or information sources currently available, are only partly relevant for PRTR, and are collected or stored in paper format or Word files. It is planned to digitalize them for more efficient use for 2014.

Proposals for establishing the proper operational conditions

- It is proposed to define the scope of the PRTR according to Annex I and II of the PRTR Protocol as minimum requirements. The lists on activities and pollutants and the thresholds, reviewed by now, could be linked to specific priority pollution problems in Moldova. Based on these lists and thresholds, final list of reporting facilities should be developed.

- PRTR should be built on an integrated electronic database on emissions, releases and transfers of waste. The establishment of separate databases according to environmental media should be avoided (e.g. under the new air governance project it is not reasonable to establish a separate air emissions database.) The PRTR database should promote the establishment of an integrated environmental information system for the MoE and its unit and institutions.

- An electronic reporting procedure should be put in place linked with the database and facilitate the data entry and flow from the operators to the PRTR authority (reporting software reporting form).

- E-governance requirements should be taken into account and followed when developing the PRTR system (including the submission and approval of the concept for the PRTR database, the draft decision for a decree for the establishment of PRTR).

- Cooperation possibility should be explored with the E-Governance Centre and also experience of other countries could be used.

- Statistical reporting data flow, if maintained in the future, could be utilized in electronic forms but needs to be harmonized with the PRTR requirements (including the review and adjustment of the list of reported activities and substances as well as thresholds). This could be also linked with the fiscal reporting and other cross-checking reporting tools.

- Separate PRTR reporting submitted directly to the relevant PRTR unit of the Competent Authority (Ministry) is also an option. While the PRTR data would be collected into a database, could also serve as a basis for the integrated database behind the environmental information system of the Ministry. This data could be also used for statistical reporting.

4. CAPACITY BUILDING FOR DEVELOPING AND IMPLEMENTING A PRTR

4.1. Existing capacities and knowledge

Currently, only limited capacities exist in the central body of MoE and its subdivisions for the development of policies, actions in the field of pollution prevention, development of the PRTR reporting procedure, database development and operation as well as for monitoring and enforcement. These experts are familiar in general with the concept of PRTR but have either no responsibility to be involved in the PRTR issues or have not enough capacity due to other tasks. The PRTR Focal Point needs to be familiar with all aspects of the PRTR development and should be equipped with knowledge about what PRTR is, how to develop it and what are the good practices in this regard, etc. Those capacities should also be built who will be involved either within the ministry or from outside the ministry, in the Inter-ministerial Working Group. For them in addition to the general aspects of PRTR, it is important to understand their role in the PRTR process and how they can contribute to it.

The operators of the companies currently have a limited knowledge about the future obligations of reporting under the PRTR system, are not familiar with the specific requirements for PRTR reporting, the benefits the PRTR could bring them, and what their role and responsibilities could be. They also have limited self-monitoring capacities and need further education on the methodologies necessary for reporting the proper data.

Among the NGO community, only few are aware of what PRTR means, what are the benefits and use of PRTR data as a right to know tool. PRTR is a very technical instrument, therefore it is necessary to explain to NGOs in simple language how they could be involved in the development and operation of PRTR and use the PRTR data.

Awareness rising is also needed for the general public to call their attention to this instrument, as PRTR should be made accessible for all citizens, and they should be made aware of what PRTR data could mean and how they can use it.

4.2. Proposals for capacity building for the different actors (governmental, operators, civil society)

A capacity building programme should be developed for the different target audience including trainings and workshops, development of technical guidance materials for the Competent Authority and those involved in PRTR reporting in MoE and outside, as well as for the representatives of operators and NGOs, as well as for awareness rising.

Among the capacity building activities, subject to availability of funds, the following are proposed:

Workshops

- During the phase of the development of the PRTR, general workshop is proposed to make the respective experts of the MoE and other ministries aware about the PRTR, provide general knowledge on how it operates, what are the benefits, what are their roles and responsibilities, what are the upcoming tasks in order to develop and operate the register;

- For the representatives of the facilities who will be identified as the reporting subjects, one or more workshops are proposed to be held, to make them aware of the planned setting up of the register, the upcoming reporting obligations, their roles and responsibilities and the benefits PRTR could bring for them;

- Broader stakeholder workshops could be held when the legislation for the PRTR is in place, the scope of the PRTR is defined, the register and the database is set up, as well as the reporting software is installed, with the participation of the major actors, including the representatives of the Competent Authority (PRTR unit and NFP), other MoE divisions and other ministries, as well as the representatives of reporting facilities and civil society, to present the proposed scope of the PRTR and how it will work and discuss the plans with the feedback from the actors. Such a discussion will help in learning and discussing about the difficulties, and also inform and prepare the major actor for their upcoming roles and obligations. Based on the result of the workshop, further corrections or adjustments can be made and assistance can be provided to help the preparations for the starting of the reporting process. Such workshop can also create the atmosphere of partnership and facilitate the PRTR reporting process.

Trainings

- More targeted training/s should be organized for the staff of the Competent Authority (PRTR unit and NFP) to prepare them for their task to coordinate the design, and later the operation of the PRTR;

- Training for the experts of different divisions within the MoE and other ministries should be held for those who will be involved in supporting the PRTR reporting process, (PRTR coordinating Group) about their role and tasks;

- Training should be held on using the reporting software by the authorities (e.g. on-site training when the reporting software will be developed);

- Training for the operators to prepare them about their concrete obligations regarding reporting to prepare them for the reporting process, including the use of the reporting software, methodology to determine the data and report, how to handle confidentiality, what is the process of data validation and quality assurance; etc.;

- Training for the representatives of Civil Society to understand the operation of the PRTR, to be prepared how they can be involved during the development and operation of the PRTR, and how they can use the PRTR data as a right-to-now tool.

The workshops and trainings could be held with the involvement of experienced foreign experts from countries with advanced PRTR systems.

The capacity building should also include the elaboration technical guidance materials to help the operation of the register and the reporting process. General guidance materials have been developed both for the PRTR Protocol and the EU E-PRTR Regulation. The PRTR Protocol Guidance is available in Russian language.

The E-PRTR Guidance material could be also translated to and made available in Romanian language.

In addition, the following materials are proposed to be developed:

- Technical guidance for the staff of the Competent Authority on the use of the reporting software (step by step guidance);
- Technical guidance for the operators to use the reporting software (step by step guidance;
- Short local language guidance material/s on reporting for operators of the most important priority sectors and providing advice/guidance on the methodologies to use (including agriculture, energy sector, mining, etc.).

- Pilot projects in certain sector or with certain companies should assist in testing and improving the reporting system. It is possible to involve one or more interested companies/operators from certain sectors, to participate voluntarily in the reporting process before it enters into force and test the proposed reporting procedure and software. This could help to correct mistakes and make the reporting procedure more user-friendly, and at the same time, also prepare the facilities for the reporting process;

- Regular exchanges or dialogues should be held between the competent authority and the operators when the reporting process will start to help them to overcome the difficulties and evaluate after the reporting year what have been the problems and how they could be solved;

- Study tour/s or exchange of experience with the experts of one or more countries with advanced PRTR system, could be also useful for the staff of the Competent Authority in the preparation for their tasks;

- Awareness raising and information campaign and different promotional activities should be carried out, when the PRTR is designed, to announce the launching of the system, using the PRTR and other web portal, different events, promotional materials and publications, etc. Short leaflet could be prepared for dissemination for the general public with information about the basic features of the register, summary of the reporting obligations, what information is included in the register, and where further information could be obtained, etc.

5. FINANCIAL RESOURCES

The Aarhus Convention reflects the public's right to have access to information on environmental matters. Today, the population of Moldova does not know about the situation related to releases and transfers of chemicals into the air, water, and soil. Moreover, no measures are undertaken to raise population awareness on environment situation, chemicals' impact on health and environment, etc.

While there are benefits of the use of PRTR systems as pointed out above, the lack of a PRTR has some disadvantages: it impedes the central and local public authorities to identify the environmental pollution and production problems, to enforce policies and regulatory acts on preventing and reducing the impact of pollutant releases and transfers on environment, health, and also the mobilization of productive sectors.

For the purpose of estimating the costs implied by the implementation or non-implementation of the PRTR, the experience of the neighbouring countries should be studied – of those countries which have already developed and are operating such a register.

A comparative analysis is proposed to be carried out to have an overview of the possible costs and benefits in case the PRTR is implemented or not implemented. For instance, the experience of the Working Group of Parties to the PRTR Protocol and of the neighbouring countries could be studied (Romania or Estonia, or another country), and information could be obtained on the costs estimated that could be incurred by the country in the case of implementation or non-implementation of a register.

5.1. Financial resources for the design and operation of the PRTR

The fulfilment of the objectives proposed for the establishment of the PRTR as proposed under the Plan of Actions for the Implementation of the Aarhus Convention for the period of 2012-2015, will require a financial coverage of about 500 000 EUR and 130 000 Moldovan Lei. The activities will be funded from the state sources (National Ecologic Fund) and from donors' support, involving public associations and project offices under the Ministry of Environment. The Ministry of Environment should cooperate with the international structures so as to obtain the technical and financial support to carry out the provisions set in the Plan for the Implementation of the Aarhus Convention.

Yearly voluntary contributions will need to be paid as contribution of parties under the PRTR Protocol. The amount of the contribution is decided by the party. Countries in transition, usually contribute with 200 USD/year. The Party should regularly send a representative to the meetings of

the Working Group of the Parties and the Meeting of Parties (MoP) and this will incur travel costs. The Working Group has one or two sessions every year, and the MoP is held every three years.

5.2. International studies on the possible cost implications

A cost benefit study was prepared under the Aarhus Convention secretariat and cost estimates for different models have been developed.

In 2002, a study was developed "Analysis of the costs and benefits of Pollutant Release and Transfer Registers" within the framework of the Working Group on PRTRs for the Meeting of the Signatories of the Aarhus Convention[26], which examined scenarios for an advanced market-type economy (AME), an advanced transition-type economy (ATE) and a less-advanced transition economy (LATE).

To summarize briefly the findings of the study, - which does also not allow providing all details about the different factors and conditions taken into account, - in the case of a so called small PRTR system (500 facilities participating), for a less advanced transition economy (the example relevant for Moldova), it was assumed that only five full time employees are required to make the system operational. In the given case, the scenario showed that it costs the regulator US$ 189,058 in the first year and came to around US$ 105,000 in the subsequent years, on average. Finally, the system costs the private sector around US$ 2 million in the first year, and after the first year of implementation, and the average annual cost per facility in the first year of the programme comes to around US$ 4,000.

The scenario seems to suggest that such a system imposes relatively modest costs on the regulator, which diminish after the first year of implementation. Regulated facilities face high costs in the initial year, but these are reduced considerably in the subsequent years of the programme. However, this largely reflects the substantial number of facilities participating in a PRTR scheme; average annual costs to individual facilities turn out to be relatively modest.

With the figures of the above costs, it is possible also to make an estimate, if less facilities than 500 are included in the programme, the costs will decrease. For example, in case of 50 facilities, the cost of private sector would be about US$ 200,000 yearly.

There are at the same time important benefits which are not possible to quantify but they bring or could bring significant improvements or advantages, such as:

- the public right to know which is the prime objective of the PRTR;
- PRTR mechanism can lead to the development or implementation of more environmentally friendly technology and can often lead to cost savings and higher efficiency for the facility;

[26] CEP/WG.5/AC.2/2002/4,11 February 2002. The other scenarios captured the basic system for 2,000 and 8,000 facilities.

- The public benefits from the system insofar as it induces reductions in pollution emissions that are hazardous to human health and the environment;
- A PRTR provides workers and communities' access to information on chemicals from which they are potentially exposed to risks. This helps them to make informed choices and take appropriate action.
- Authorities based on the PRTR data make environmental policy decisions resulting in environmental improvements, etc.

During the Working Group of the Parties held in Geneva, 28 and 29 November 2011, a training was also held on a cost model to support implementation of PRTRs. A "Cost guide for implementation of the UNECE Protocol on Pollutant Release and Transfer Registers" was developed which described the features of different PRTRs within a project which built financial model which attempts to capture the main costs to the private sector of the relevant emissions monitoring, whether through measurement, calculation or estimation, to air, water and land. The model was estimated with data from the field trips to Norway, Sweden, Switzerland and France. Data was collected on the basis of a facility questionnaire.[27]

5.3. Potential sources for donor support

For the support of the PRTR design and operation, financial resources need to be mobilized, in addition to the state budget.

The project proposal "Strengthening capacities for the development of the national Pollutant Release and Transfer Registers (PRTR) and supporting SAICM implementation in two countries with economy in transition: the Republic of Moldova and the Republic of Macedonia" prepared jointly by the Ministry of Environment of the Republic of Moldova, Environmental Pollution Prevention Office and the Ministry of Environment and Physical Planning, POPs Unit, Republic of Macedonia and submitted to SAICM, requesting US$ 250,000 in case of adoption, will provide funds for the 1st phase of the design and development.

In addition, other funding opportunities identified so far, include:

- The UNEP/GEF new project proposal on developing/implementing PRTRs to which Moldova has been invited as one of the partners: the project will focus first of all on reporting on POPs ad through this will support PRTR development;

- Germany could be approached for project funding and technical support within the bilateral cooperation between the two countries, especially in case the free open software on reporting will be decided to be used;

- Norway could be approached for project funding, as Norway has been active in the PRTR Working Group and has an advanced PRTR register;

[27] ECE/MP.PRTR/WG.1/2011/3, 26 September 2011

- TAIEX funding could be asked for specific workshops, trainings or study tours to an EU country.

The OSCE funded project "Establishment of the Aarhus Centre in Chisinau and the Public Information Centre in Bender" will also further support certain PRTR activities. Further proposals can also be submitted to OSCE.

Further fundraising is needed, and the MoE should cooperate with the international donors and other actors to obtain technical and financial support to carry out the proposed activities to establish PRTR. It is necessary to provide proposals/concepts ensuring to cover the different activities proposed to continue the design and the implementation of the PRTR in synergy among the different proposals, and submit these to the above and other donors.

5.4. Conclusions and Proposals

Based on international experience the possible cost implications will be highlighted for Moldova. A more detailed cost/benefit analysis is proposed to be prepared in the further phase of PRTR development.

Conclusions:

- For the purpose of estimating the costs implied by the implementation or non-implementation of the PRTR, the experience of the PRTR Protocol working group and of the neighbouring countries should be studied – the countries which have already implemented such a register. (E.g. Romania, Estonia.)

- The fulfilment of the objectives proposed for the establishment of the PRTR as proposed under the Plan of Actions for the Implementation of the Aarhus Convention for the period of 2012-2015, will require a financial coverage of about 500 000 EUR and 130 000 Moldovan Lei. The activities should be funded from the state sources (state budget and National Ecologic Fund) and from donors' support, involving public associations and project offices under the Ministry of Environment.

- Further fundraising is needed, and the MoE should cooperate with the international donors and other actors to obtain technical and financial support to carry out the proposed activities to establish PRTR. The fundraising proposals/concepts need to be coordinated in order to ensure that these will cover the different activities proposed to continue the design and the implementation of the PRTR system.

6. CONCLUSIONS AND RECOMMENDATIONS

6.1. Summary of recommendations for proposed legislative, institutional, operational, capacity building steps

The feasibility study is aimed to support the process of the establishment of the system of national Pollutant Release and Transfer Register (PRTR) in Moldova which is planned to be set up at latest by the end of 2020 according to the updated version of the Plan of Actions for the Implementation of the Aarhus Convention for Moldova for the period of 2011-2015 adopted by the Government Decision no. 471 of 28.06.2011. Alternatively, if possible, the target date for having an operational PRTR could be brought forward to the end of 2017 or end of 2018, when the major outcomes of the current projects are planned to be achieved.

Conclusions:

- In the country the governmental agencies generally know about the PRTR Protocol, due to the National Workshop in December 2012 and Protocol ratification process, and are generally in favour of the establishment of PRTR. At the same time economic agents and NGOs were not too much involved in the process (only invited in a limited number to the workshop in December 2012) and are less informed.

- Since the ratification of the PRTR Protocol (April 2013) several practical steps were carried out by the Ministry of Environment (MoE):

    - A draft project proposal was developed and submitted for the multi-country SAICM Programme (in partnership with Macedonia);

    - Support was provided in the organization and works of the mission within the OSCE project „Establishment of the Aarhus Centre in Chisinau and the Public Information Centre in Bender".

- There is an Aarhus Convention Working Group and Working Group on PRTR recently established.

- Environmental, health and agricultural authorities, due to departmental interests, do not have a clear and well operating data exchange system on pollution information, especially in the field of chemicals and transfer of wastes, monitoring, and there is an overlap of activities (which also mean that the state budget resources are not used properly and efficiently);

- The outcome of the pending legislative process of adoption of the Environmental Protection Law or the Law on Access to Environmental Information and related legislation and the institutional reform could be crucial for the coordination of developing and operating a PRTR system.

1. Legal framework necessary for the development and implementation of a PRTR

- The Ratification Law and the existing obligations for Moldova under the Aarhus Convention create the legal basis for the establishment and operation of the national PRTR in the legislation. Although the international legislation is directly applicable, a more detailed implementing **new Regulation** is also necessary.

- Many currently existing provisions which are or could be relevant for PRTR are at the moment dispersed among different laws and regulations, and also, are far from being complete.

- The obligations currently not existing in the legislation of Moldova and need to be covered:

    - General and specific obligations for the competent authority responsible for collecting, validating and managing the register, as well as dealing with accessibility to the data and confidentiality issues, including the reporting requirements on releases and transfers which at the moment are missing from the Moldovan legislation;

    - The obligations for operators to collect and report the relevant data according to the PRTR Protocol's reporting requirements;

    - It is also necessary to improve and complete the legislative framework with provisions ensuring public participation in establishing and modifying the PRTR, on access to environmental information, especially on clarifying grounds for confidentiality on information on emissions, as well as on access to justice.

2. Institutional framework for the setting up and for operation of a PRTR in Moldova

- The current institutional framework under and outside the MoE has serious flaws and inefficiencies. It is fragmented and does not have the necessary responsibilities and competences for PRTR. The data and information is dispersed among the different departments and institutions, and due to departmental interests, there is no clear and well operating data exchange system on pollution information, especially in the field of chemicals and transfer of wastes. There is an overlap of activities.

- Data is difficult to access, use for decision-making regarding pollution prevention and reduction, and making it accessible to the decision-makers and the public.

- The lack of proper institutional framework and the existence of numerous non-compatible data collection obligations and non-compatible databases maintained by a variety of

departments and authorities makes difficult to develop a well-functioning PRTR. There is a need for better coordination among the different departments and institutions under the MoE and other authorities, the better integration of measures and efforts, as well as capacities and resources.

- The pending legislative process and the institutional reform will change the current institutional setup (including the establishment of the environmental agency) but it is not clear how fast this process may be executed.

3. Operational conditions (administrative and technical infrastructure) necessary for setting up and operating a PRTR

- Moldova does not have in place a mechanism for reporting and data collection based on requirements of environmental permits (e.g. IPPC) or obligatory self-reporting by the facilities for releases and transfers (except reporting on urban wastewater). Instead of separate media reporting, integrated reporting should be required for all media based on a unified methodology and dataflow should be kept in an integrated electronic database.

- Under the new legislation on PRTR and air, water and waste (hazardous and other waste) the necessary reporting requirements need to be introduced based on a list of activities, pollutants list and thresholds for the production capacity for facilities and for releases of pollutants.

- Only some big companies carry out self-monitoring and measurements most use estimation or calculation techniques for reporting on environmental emissions/pollution but these are not according to the PRTR requirements (including BAT).

- Only limited number of enterprises provides currently statistical data on emissions and there is no full list of authorized enterprises at the SEI on this, no databases established, etc.

- The major data or information sources are only partly relevant for PRTR, and are collected or stored in paper format or Word files. It was planned to digitalize them for more efficient use for 2014.

4. Capacity building for developing and implementing a PRTR

- Limited capacities exist in the central body of MoE and subdivisions for the development of policies, actions in the field of pollution prevention, development of the PRTR reporting procedure, database development and operation as well as for monitoring and enforcement.

- The companies have limited self-monitoring capacities and do not know the requirements and methodologies necessary for PRTR reporting.

- Only few NGOs are aware of the benefits and use of PRTR data as a right to know tool.

Recommendations:

1. Legal framework necessary for the development and implementation of a PRTR

- One overall legislative framework should be created for establishing the national PRTR in a coherent and systematic way, in line with the PRTR Protocol and with the EU's E-PRTR Regulation, instead of having scattered legislative pieces across different laws and regulations.

- In addition to the Law on Ratification of the PRTR Protocol, **a new Regulation** should be adopted on establishing the national PRTR, defining in details the obligations of the administrative authorities who will be collecting, validating and managing the register, should deal with accessibility to the data and confidentiality issues and also, the obligations for operators to collect and report the relevant data according to the Protocol's reporting requirements.

- The draft Law on Access to Environmental Information, which contain provisions on PRTR, should be promoted.

- The series of new draft laws to be submitted or under consideration in the Parliamentary approval procedure, should be reviewed to ensure they include the necessary articles or references to reflect the needed obligations for the establishment and operation of PRTR (Draft Law on Environment Protection, Laws on Air, Water, Waste and Chemicals).

- A governmental decision also should be drafted and submitted for the creation of the integrated electronic PRTR database according to the requirements of the Governmental Programme on E-governance. This decision should describe the legal background and the need for such database, and how it will be designed and operated;

- On longer perspective, the law transposing and implementing the Integrated Pollution Prevention and Control Directive (IPPC) Directive (Directive 2010/75/EU on industrial emissions) planned in the next 4-5 years should be closely linked with the operation of the national PRTR, PRTR Protocol and the E-PRTR Regulation.

2. Institutional framework for the setting up and for operation of PRTR

- The establishment of an integrated reporting procedure is proposed to be established resulting in the proper information or data flow. As the most efficient way it is recommended to designate a single competent authority in charge to collect the data and manage register, based on an integrated database of pollutants and releases. The PRTR database could be also a subset of a broader integrated environmental information system which could support also more efficient environmental policy-and decision-making as well as enforcement measure.

Based on the current institutional framework and the expected institutional reform which is under way, the following recommendations are made:

Option 1:

In case the institutional reform will take longer than expected and the draft Law on Environmental Protection will not be adopted by the time the PRTR should be established (end of 2020 or if possible earlier, with the support of on-going projects), one of the current divisions under the MoE should take the responsibility of the PRTR unit, until the new institutional structure will be in place.

It is proposed that in this period the Pollution Prevention and Waste Management Division of the MoE, should serve as the PRTR unit, including the person nominated as National PRTR Focal Point (NFP). The PRTR unit should consist of a few experts who would work under the coordination of the PRTR Focal Point, with support from other MOE units.

The following tasks and responsibilities are proposed to be carried out:

- All relevant data reported by the operators as well as relevant sub-divisions of the MoE collecting data (SEI, Hydrometeo, AGMR, Agency Apele Moldovei, the project offices) and other ministries and institutions should be submitted to the PRTR unit and NFP, according to agreed forms and periodicity;

- An inter-ministerial PRTR coordinating group (PRTR inter-ministerial Working Group) should be established to ensure data flow collected under the MoE and other ministries or institutions is all available (Working Group functions based on agreed terms of reference on their role and functions);

- The data should be collected under the coordination of NFP in collaboration with the PRTR inter-ministerial Working Group;

- A PRTR reporting tool and database should be developed under the coordination of PRTR NFP in order to facilitate the data collection and access;

- The NFP should be responsible for developing/submitting the reports for the national and international levels based on data submitted by reporting facilities and other relevant authorities (under and outside the MoE, in cooperation with the PRTR inter-ministerial Working Group);

- Validation and quality control of reported data should be made under the coordination of NFP by those divisions having related relevant data or information (such as State Hydrometeorological Service, SEI, other relevant departments and project offices, etc.);

- Yearly national PRTR reports should be made publicly available through a national PRTR web portal, and also submitted to the EU E-PRTR;

- The reports can be commented publicly by operators, NGOs and other stakeholders;

- The PRTR NFP should be in charge for the public access to information and public participation tasks, or these should be carried out under his/her coordination by the MoE section responsible for Public Participation.

- T**he National Environmental Reference Laboratory** should be established under the State Hydrometeorological Service, as the Integrated Environmental Monitoring System covering the environmental monitoring (air, water and soil), is planned to be coordinated by this institution. This laboratory will be needed to assist the operators with the measurements of pollutants and with validation.

- The server with PRTR database could be placed at the State Ecological Inspectorate, maintained and updated and the links to the PRTR web portal should be indicated on the web site of the MoE and IES.

Option 2:

If the expected institutional reform will progress faster and the planned Environmental Protection Agency will be set up in the next 2 years, the most appropriate is to place there the Competent Authority, the PRTR unit including the NFP. This Agency will be anyway responsible for collecting, managing and processing the data submitted under the different reporting obligations, permitting procedures, for operating an integrated information system, as well as for executing the measures set by the national environmental policy and legislation.

Based on the above developments:

- It is proposed that the PRTR unit and the PRTR NFP should be established under the EPA as a separate unit.

The process of the setting up and operation of PRTR should be carried out the same way as mentioned above under Option 1, except, the PRTR unit will be placed in the EPA.

The database on PRTR should be placed and maintained on the server of the EPA, and the data and reports could be presented on the EPA website via PRTR web portal. A link should be made from the MoE web site.

3. *Operational conditions (administrative and technical infrastructure) necessary for setting up and operating a PRTR*

- It is proposed to define the scope of the PRTR according to Annex I and II of the PRTR Protocol as minimum requirements. The lists on activities and pollutants and the thresholds should be reviewed to be relevant for the specific priority pollution problems in Moldova. Some substances, activities may be added, some thresholds may be lowered. Based on these lists and thresholds, list of reporting facilities should be developed.

- PRTR should be built on an integrated electronic database on emissions, releases and transfers of waste. The establishment of separate databases according to environmental media should be avoided (e.g. under the new air governance project it is not reasonable to establish a separate air emissions database.) The PRTR database should promote the establishment of an integrated environmental information system for the MoE and its unit and institutions.

- An electronic reporting procedure should be put in place linked with the database and facilitate the data entry and flow from the operators to the PRTR authority (reporting software reporting form).

- E-governance requirements should be taken into account and followed when developing the PRTR system (including the submission and approval of the concept for the PRTR database, the draft decision for a decree for the establishment of PRTR).

- Cooperation possibility should be explored with the E-Governance Centre and also experience of other countries could be used (e (technical assistance and support, including the preparation of the database or the adaptation of foreign software, possible use of free PRTR reporting software of Germany.)

- Statistical reporting data flow, if maintained in the future, could be utilized in electronic forms but needs to be harmonized with the PRTR requirements (including the review and adjustment of the list of reported activities and substances as well as thresholds).

- Separate PRTR reporting submitted directly to the relevant PRTR unit of the Competent Authority (Ministry) is also an option. While the PRTR data would be collected into a database, could also serve as a basis for the integrated database behind the environmental information system of the Ministry. This data could be also used for statistical reporting.

4. *Capacity building for developing and implementing a PRTR*

- Capacity building programme should be developed including trainings and workshops and technical guidance materials for the Competent Authority and those involved in PRTR reporting in MoE and outside, as well as for the representatives of operators. Stakeholder workshops with operators and NGOs should help to prepare for awareness raising and for PRTR implementation and reporting. Pilot projects in certain sector or with certain companies should assist in testing and improving the reporting system.

- Awareness raising and information campaign and different promotional activities should be carried out using also the web portal, events, promotional materials and publications, etc.

5. *Financial resources for the design and operation of the PRTR*

- For the purpose of estimating the costs implied by the implementation or non-implementation of the PRTR, the experience of the PRTR Protocol working group and of the neighbouring

countries should be studied – the countries which have already implemented such a register. (E.g. Romania, Estonia.)

- The fulfilment of the objectives proposed for the establishment of the PRTR as proposed under the Plan of Actions for the Implementation of the Aarhus Convention for the period of 2012-2015 was calculated as requiring a financial coverage of about 500 000 EUR and 130 000 Moldovan Lei. This calculation should be updated for the next period of time (2016-2020) during the finalisation of the draft updated Plan and its approval. The activities should be funded first of all from the state sources (state budget and National Ecologic Fund) and additionally from donors' support, involving as well public associations and project offices under the Ministry of Environment.

- There are several projects on-going and expected (the current project funded by Germany, the project funded by GEF and the expected project funded by SAICM). These projects and the key players should discuss and agree on how their resources would be used for designing the PRTR, as the first phase and how implementation would be assisted. Further fundraising may be needed as well. The MoE should cooperate with the international donors and other actors to obtain further technical and financial support to carry out all the proposed activities to establish and later start operating the PRTR. The assistance of the on-going projects and the fundraising proposals/concepts need to be coordinated in order to ensure that these will cover the different activities proposed to continue the design and the implementation of the PRTR system.

- The MoE needs to ensure also a budget for covering the necessary costs of ensuring the conditions for supporting the process of setting up the register, securing the financial coverage for those costs which are not part of the on-going projects but are needed for the PRTR development. Later on, budgetary resources should be allocated for the continued operation on regular basis including the human and technical aspects.

6.2. Proposed process of development, approval and introduction of PRTR

On October 4, 2013, a National Workshop was held on the establishment of the Pollutant Release and Transfer Register (PRTR) System in Moldova in the OSCE Mission's conference room. The National Workshop was aimed to present the main conclusions and recommendations of the Feasibility Study for Developing a Pollutant Release and Transfer Register (PRTR) in Moldova and support the process of the establishment of the system of national Pollutant Release and Transfer Register (PRTR) in Moldova planned to be set up by the end of 2015, and agree on the major next steps for the implementation of the PRTR System in Moldova. The workshop was attended by 41 participants, representing the OSCE Mission to Moldova, the Ministry of Environment and its subdivisions, the line ministries, involved in the process, economic agents, NGOs and experts. See workshop report in Annex 7.

As a result of the discussions and the proposals of the feasibility study, the next steps were proposed by the project consultants, However, most of these were not implemented until the new project "Support Establishment and Advancement of Pollutant Release and Transfer Registers (PRTRs) in Western Balkan Countries and in Moldova", funded by German Ministry of Environment, Nature Conservation, Building and Nuclear Safety's Advisory Assistance Programme (AAP) has not started in the spring of 2015. This new project and from February 2016, the "Global Project on the Implementation of PRTRs as a tool for POPs reporting, dissemination and awareness raising for Belarus, Cambodia, Ecuador, Kazakhstan, Moldova and Peru" (funded by GEF and implemented by UNITAR-UNEP) have continued and plan to continue the implementation of these steps.

Major steps implemented and proposed (2015-2018)

- Designate responsible unit for PRTR and National Focal Point (MoE (order of the minister) - done by the end of 2013);

- Establish PRTR Inter-ministerial Coordinating Group (MoE, involved ministries and governmental agencies, representatives of business associations and NGOs, EcoContact, REC project, etc, - done by the end of 2015;

- Review Annexes to the Protocol (activities and substance lists and thresholds) based on priority pollution problems, and compare with existing provisions and statistical forms (MoE, NBS, experts, EcoContact, REC project -done by February 29, 2016;

- Prepare list of reporting facilities (MoE, SEI, EcoContact, REC project, experts, first results presented by February 19, 2016;

- Review draft laws (Law on Access to Environmental Information, and other relevant laws , prepare draft regulation on PRTR (Governmental Decision) and proposal for amendments of draft laws for submission to Parliament (MoE, EcoContact, REC project, (first results presented in February 2016, to be done by end 2016;

- Prepare "Overview of the current status of development of PRTR and implementation of the PRTR Protocol in Moldova" and update of the "Feasibility study on Developing a Pollutant Release and Transfer Register (PRTR) in Moldova" prepared in 2012 to provide a background on what has been done in Moldova and make proposals for further steps (EcoContact, REC project) - done by February 29, 2016;

- Design the database - discussion with E-governance Centre (MoE, E-Governance Centre, experts, GEF funded project, SAICM project etc. – 2017);

- Design the reporting software (including reporting form) (MoE, NBS, E-Governance Centre, experts, GEF funded project, SAICM project etc. – 2017);

- Develop dedicated PRTR web portal to ensure public accessibility of PRTR data (MoE, E-Governance Centre, experts, EcoContact, REC project, GEF funded project, SAICM project, etc. – end of 2017);

- Communicate with and build capacity of operators about reporting obligations (MoE (PRTR Unit), NBS, experts, EcoContact, REC project, GEF funded project, SAICM Project, etc.– by end of 2017);

- Ensure public participation in PRTR development (during all stages of development and implementation) including regular information provision and involvement of representatives of NGOs and other stakeholders in working group/s or in multi-stakeholder event/s; (MoE, EcoContact, REC project, GEF funded project, SAICM project, etc.) - continuous;

- Capacity building (trainings on PRTR, database management and operation, quality control and assessment, etc. and development of local language guidance material/s (MoE, E-Governance Centre, experts, EcoContact, REC project, GEF funded project, SAICM Project, etc, – first results by February 28, 2017, to be continued by end of 2017);

- Resource allocation, fundraising (during all stages of development and implementation) by MoE and all actors -continuous;

- Raise awareness and promote PRTR (website maintenance, publications, workshops, using electronic tools, etc.) (MoE (PRTR Unit and NFP), experts, EcoContact, REC project, GEF funded project, SAICM Project, etc. – by end of 2017);

Based on discussion and agreement with the MoE and the GEF funded project, the REC project has been and will focus on the following:

- Preparation of the above mentioned Overview and update of Feasibility Study for Developing a Pollutant Release and Transfer Register (PRTR);

- Developing and promoting draft legislation on PRTR for the amendment of laws and the Regulation on PRTR (drafts for provision of amendments to legal acts and Regulation on PRTR);

- Review Annexes to the Protocol (activities and substance lists and thresholds) based on priority pollution problems, and compare with existing provisions and statistical forms;

- Participate in the preparation of the updated list of reporting facilities and cover those as well, which did not provide data in 2013-2015;

- Coordination of PRTR development activities, participation in inter-ministerial working group/s, and the Working Group meetings or Meeting of Parties under the PRTR Protocol;

- Ensuring public participation in PRTR development by organising two multi-stakeholder events (in 2015 and 2016);

- Capacity building/including training activities on PRTR for governmental agencies, operators and NGOs, and development of guidance material/s;

- Assistance in developing a dedicated PRTR website for public accessibility of the PRTR data;

- Promoting exchange of experiences with other parties to the PRTR Protocol and learning from the good practices of more advanced PRTR systems by inviting the representatives of key Moldovan stakeholders to the sub-regional SEE workshop to be held in November 2016, in cooperation with the UNECE PRTR Protocol Secretariat;

- Organize and conduct awareness raising for public and operators on PRTR;

- Assistance supporting fundraising for future projects in support of PRTR.

All activities have been and will be done in cooperation with the MoE and the GEF funded project.

List of Annexes:

1. Proposal for modification the Draft Law on Access to Environmental Information;
2. Overview of the current status of development of PRTR and implementation of the PRTR Protocol in Moldova, November 2015;
3. List of companies and results of Questionnaire on PRTR (Excel file);
4. Comparative table of the Protocol's Annex I on activities and its relevance for Moldova (updated 2015);
5. Comparative table of the Protocol's Annex II on substances and its relevance for Moldova (no updates – same substances);
6. List of experts of Inter-ministerial Working Group on PRTR ;
7. Minutes of Multi-stakeholder Workshop "Support Establishment and Advancement of Pollutant Release and Transfer Register (PRTR) in Western Balkan Countries and Republic of Moldova", 30 June 2015, Chisinau, Moldova;