Protocol on Pollutant Release and Transfer Registers to the Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters

QUESTIONNAIRE POLLUTANT RELEASE AND TRANSFER REGISTERS: POLLUTANT MONITORING, DIFFUSE RELEASES, AND BILATERAL COOPERATION

This questionnaire has been prepared pursuant to decisions of the first meeting of the Working Group of the Parties to the Protocol on Pollutant Release and Transfer Registers (Protocol on PRTRs) held on 28-29 November 2011 in Geneva.

The Working Group identified information that is most in need for countries that plan to accede to the Protocol and should therefore be obtained via questionnaire as soon as possible.

The questionnaire is being sent to all National Focal Points (NFPs) for the PRTR Protocol and where a PRTR NFP has not yet been designated to the NFP for the Aarhus Convention.

The questionnaire consists of three parts.

Part I aims to collect information on who pays for the pollutant monitoring and who carries out the pollutant monitoring.

Part II aims to identify information and methods in relation to measuring or estimating diffuse releases, such as releases from agricultural farms, and to identify countries' needs in relation to measuring diffuse releases.

Part III aims to identify potential for bilateral co operations between countries so as to help meet countries' needs for assistance and training.

The Bureau of the Meeting of the Parties to the Protocol will report on the results of the survey to the Working Group of the Parties at its second meeting, scheduled for 19-21 November 2012.

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I. POLLUTANT MONITORING

Part I aims to collect information on current activities in relation to pollutant monitoring in the countries, such as identifying who pays for the monitoring and who carries out the monitoring.

Ouestions

1. Who pays for the pollutant monitoring in your country?

A: In Albania is performed tow kinds of pollutant monitoring:

- The environmental quality monitoring, which is being conducted from the Ministry and the costs are covered by the Government.
- The pollutant emission/discharge monitoring (source point), which is being conducted by the industrial operators and they pay the costs.
- 2. Who carries out the pollutant monitoring in your country?

A: The environmental quality monitoring is carried out by state institutions depending on their functions like the Institute of Public Health who also monitors the air quality in Albania. There are various specialised state institutions that are contracted by the Ministry of Environment.

The source point pollution emission is being monitored either by private laboratories of by the operators internal staff.

- 3. Please provide any other information that you feel is relevant to the development of effective pollutant monitoring in your country (e.g. current status of the activities in your country in relation to pollutant monitoring; how pollutant monitoring is carried out; specific pollutant monitoring methodologies used, etc).
- A: The environmental monitoring gathering, transferring and reporting of data and statistics is supported by a broad legal basis.
 - Law "On Environmental Protection" dated 05.09.2002, (Official Gazette 60/2002, page 1673, October 2002), Chapter VII "Data Monitoring", clearly defines the environmental indices that shall be monitored by area of activity.
 - Decision of Council of Ministers No. 1189, dated 18.11.2009, "On the rules and procedures for the development and implementation of the national environmental monitoring program," (Official Gazette no. 200, page 9745, dated 11.02.2002) which regulates the collection of data on the environment. Paragraph 1 of Decision

1189/2009 provides that the Ministry shall draft The National Environmental Monitoring Program and coordinate efforts for its implementation through the Agency for Environment and Forests. Paragraph 2 provides that the National Environmental Monitoring Program outlines the main indices of the situation, factors that impact and affect the air, surface and underground waters, land, the coastal area, seas, forests and biological diversity. Each environmental index that is measured and evaluated contains the name, definition, methodology of taking measurements and place where the sample has been taken from, frequency and unit of measurement, approach to data processing and submission.

The gathering of environmental data is lead by MMPAU and is realised through contracts the Ministry signs with different Institutions financed by the State Budget. Among the data to be monitored are various parameters on the quality and quantity of the air, water, soil, flora, fauna and noises. The terms of reference in data monitoring contracts define:

- elements to be monitored,
- monitoring methodology,
- stations where samples are to be collected from,
- collection and transport of samples,
- analytical methods to be used defining the indices, in compliance with standards of the Republic of Albania and the European Union,
- checking of the quality of measurements,
- Template for the presentation monitoring data.

Thus, data from the monitoring of urban air quality, for six main indicators of air quality, NO₂, SO₂, O₃, Pb, PM10 and LNP are taken in 15 stations in the most populated cities and urban zones, Tirana, Elbasan, Durrës, Fier, Vlora, Shkodra and Korça. In addition data on the pollution of urban air by heavy metals, such as Pb, Cr, Ni, and Zn are collected through elementary aerosol analysis. This is carried out by the Agency for Environment and Forests, the Institute of Public Health and the Applied Nuclear Physics Centre.

The monitoring of urban acoustic pollution is carried out by the Institute of Public Health at 45 monitoring stations in eight major cities of the country where the data are collected and a calculation is made of the average noise levels during the day and at night.

In the framework of Climate Change work, a greenhouse gases (GHG) inventory has been compiled for CO₂, CH₄ and N₂O₅. A greenhouse gas emissions report was compiled for the period 1990-2000 using the methodology prescribed by the Intergovernmental Panel for Climate Change (IPCC) 1996 (revised).

The monitoring of the water quality in surface waters (lakes, rivers, coastal areas, urban discharges) and underground waters, is done for 18 physical-chemical indices, including PH, temperature, salinity, suspended matter, dissolved oxygen, NKO, NBO, NH₄, NO₂, NO₃, PO4, P-tot. Cd, Hg, Ni, Pb, faecal coli forms and faecal streptococcus. The monitoring is done at 32 stations located in the country's major rivers and six in lakes (Shkodra, Ohrid, Prespa, and Butrint).

The monitoring of the impact of liquid discharges in surface waters (rivers and coastal areas) is carried out at 35 stations located in eight urban centres, Tirana, Durrës, Shkodra, Lezha, Elbasani, Fieri, Vlora, Saranda.

The monitoring of underground waters is done out for 11 indices (general mineralisation, hardness, pH, NH₄, NO₂, NO₃, Pb, Zn, Cu, Ni, Mn), in five water basins (Drini, Mati, Erzen-Ishmi, Shkumbini, Semani). The water quality monitoring network includes: The Institute of Energy, Water and Environment, The Albanian Geological Service and the Agency for Environment and Forests.

The monitoring of **coastal bathing waters** for microbiological indices (faecal coli forms and faecal streptococcus) is carried out by the Institute of Public Health at 72 monitoring stations in the most popular bathing areas during the holiday season, along the whole coastal line of the country.

The monitoring of the trophic state (water quality) of lagoons is carried out by the Faculty of Natural Sciences, for eight indices (pH, TOC, dissolved oxygen, NBO, chlorophyll, phytoplankton, photosynthesis pigments, and phosphates).

Data on **urban waste** are collected on the basis of information received from Local Government Authorities.

The monitoring of biodiversity involves major flora and fauna groups (mammals, birds, amphibians, insects, molluscs, algae, etc.), the quality of a number of habitats important to the flora and fauna, as well as some endangered species. This monitoring is carried out by a wide network of institutions, including the Natural Sciences Museum, Botanical Gardens, the Biotechnology Centre and departments of the Faculty of Natural Sciences.

The monitoring and assessment of soil indicators are carried out by the Agricultural University, and include measuring erosion, landslides, land erosion along river banks and seas, the quality and quantity of suspended inert matter in river waters, the presence of heavy metals and the micro flora in agricultural land. Agricultural land data are collected from soil samples with light, middle and heavy texture. The monitoring stations are located in the districts of Shkodra, Lezha, Kurbini, Kruja, Tirana, Lushnja, Fieri, Vlora and Delvina. Samples from each monitoring station are analysed for pH, organic mass, humus, N, P, K, Ca, Mg, Na, K, microbiological parameters, texture and microelements (Mn, Zn, Cu and Fe).

The MMPAU and AEF regularly report on the monitored, in their State of Environment Report (pursuant to Article 57 (3) of the Law No. 9890, on Environmental Protection, amended, dated 20.3.2008). This report is published on the official MMPAU website and is open to all interested members of the public.

II. DIFFUSE RELEASES

Part II aims to identify methods in relation to measuring or estimating diffuse releases, such as releases from agricultural farms.

Questions

- 1. What are the diffuse releases that are measured, calculated or estimated in your country?
- A: Air quality in some biggest cities of Albania such as PM10, LNP, NO₂, SO₂, O₃, CO. Noise levels in several points of these cites. Quality of bath waters in several points along the coastline including the *Fecal Coliforms FC* and *Intestinal Enterococcus IE*, undergroung water quality, selected river waters quality, selected lakes water quality, trofic dtate of selected wetlands, soil erosion, biodiversity indicators, waste generation and urban wastewater realses.
- 2. Who pays for measuring diffuse releases in your country?
- A: The Budget of State
- 3. How is data collected for measuring diffuse releases, including releases from agricultural farms, in your country?
- A: There are several state specialised institutions which are contracted from the Ministry to conduct specific monitoring. They use their methods and instruments to provide the data which are than presented at the final report delivered at the Ministry each year. So far the agricultural releases are not measures and included in the monitoring.

4. Who carries out the measurement or estimation of diffuse releases, including releases from agricultural farms, in your country?

A: Some as point 3

- 5. What methodologies does your country use to measure or estimate diffuse releases¹, including releases from agricultural farms? Please provide links to relevant data sources.
- A: The methods in general are described at the national state report which is being published only in Albanian at the ministry website at:

http://www.moe.gov.al/index.php?option=com_content&view=category&layout=blog&id=94&Itemid=40

- 6. Please provide any other information that you feel is relevant to the measurement or estimation of diffuse releases in your country (e.g. additional needs in relation to measuring diffuse sources).
- A: There is a project called CEMSA funded by EC which is assisting the Agency of Environment to strengthen the monitoring capacities.

http://cemsaproject.net/

III. IDENTIFYING BILATERAL COOPERATIONS

Part III aims to identify potential for bilateral co operation between countries so as to help meet countries' needs for assistance and training in developing PRTRs.

Ouestions

1. Would your country like to receive bilateral assistance from another country in relation to PRTR development?

A: None

2. If the answer is YES please describe or list the PRTR functional areas and issues in which your country would most like to receive assistance or training.

A:

3. Can your country provide bilateral assistance on PRTR development to a country that is in need of assistance?

A: Yes

4. If the answer is YES please describe or list the PRTR functional areas and issues in which your country could offer assistance or training.

A: Experience exchange

5. Is your country already involved in bilateral cooperation with another country or international organisation in relation to PRTR development?

A:

¹ See for guidance, for example: 'Resource Compendium of PRTR Release Estimation Techniques Part 2: Summary of Diffuse Source Techniques' available at http://www.oecd-ilibrary.org/economics/resource-compendium-of-prtr-release-estimation-techniques-part-2-summary-of-diffuse-source-techniques_oecd_papers-v6-art15-en

- 6. If the answer is YES please describe whether your country is:
 - i) Currently receiving assistance on PRTR projects (please provide relevant details);
 - ii) Currently providing assistance on PRTR projects (please provide relevant details), or
 - iii) Currently involved in a bilateral exchange in which two or more countries are assisting each other in relation to PRTR developments (please provide relevant details).

A:

7. Please provide any other information that you feel is relevant to the development of bilateral cooperation with your country on PRTRs.

A:

Please send your response by 9th March 2012 to the secretariat of the Protocol on PRTRs: public.participation@unece.org Many thanks for your contribution!

ARMENIA

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I. POLLUTANT MONITORING

Part I aims to collect information on current activities in relation to pollutant monitoring in the countries, such as identifying who pays for the monitoring and who carries out the monitoring.

Ouestions

- 1. Who pays for the pollutant monitoring in your country?
- A: The enterprises or other etc. organizations pay for pollutant monitoring in our country /which implement the laborants, operators or independed experts/.
- 2. Who carries out the pollutant monitoring in your country?
- A: In our country experts from large enterprises calculate or measure the pollutant emmisions from plants and annually submit it/this information/ to the Ministry of Nature Protection as Report form 2 TP/separetly air, water and waste/.
- 3. Please provide any other information that you feel is relevant to the development of effective pollutant monitoring in your country (e.g. current status of the activities in your country in relation to pollutant monitoring; how pollutant monitoring is carried out; specific pollutant monitoring methodologies used, etc).
- A: Now the Ministry of Nature Protection of RA preparing the "RA Law on self monitoring in industrial enterprises" and submit it to National Assambly for ratification on end of 2011.

II. DIFFUSE RELEASES

Part II aims to identify methods in relation to measuring or estimating diffuse releases, such as releases from agricultural farms.

Ouestions

- 1. What are the diffuse releases that are measured, calculated or estimated in your country?
- A: We are calculating only releases from Transport according USSR methodology /1960-1970 years/:
- 2. Who pays for measuring diffuse releases in your country?

- A: State budjet for transport / N/A for others
- 3. How is data collected for measuring diffuse releases, including releases from agricultural farms, in your country?
- A: For First and Second National Communication report on Climate Change, according IPCC methodology.
- 4. Who carries out the measurement or estimation of diffuse releases, including releases from agricultural farms, in your country?
- A: Experts. whome are prepared the First and Second National Communication Report on Climate Change. They calculate greenhouse gase emission.
- 5. What methodologies does your country use to measure or estimate diffuse releases², including releases from agricultural farms? Please provide links to relevant data sources.

A: N/A

- 6. Please provide any other information that you feel is relevant to the measurement or estimation of diffuse releases in your country (e.g. additional needs in relation to measuring diffuse sources).
- A: We need in experience change with EU country. We want to know their methodology, institution and legislation.

III. IDENTIFYING BILATERAL COOPERATIONS

Part III aims to identify potential for bilateral co operation between countries so as to help meet countries' needs for assistance and training in developing PRTRs.

Questions

1. Would your country like to receive bilateral assistance from another country in relation to PRTR development?

A: YES, of course

- 2. If the answer is YES please describe or list the PRTR functional areas and issues in which your country would most like to receive assistance or training.
- A: We want to know EU countries methodology, institution and legislation for calculation and measure release from diffuse resources. Who pay and must be responsible for monitoring from diffuse resources.
- 3. Can your country provide bilateral assistance on PRTR development to a country that is in need of assistance?
- A: We need on the support of Aarhus Convention Secretariat in order to organize Study tour or workshop with Noeway, UK or other European country, which have PRTRs system in
- 4. If the answer is YES please describe or list the PRTR functional areas and issues in which your country could offer assistance or training.

A: we need on the support of Aarhus Convention Secretariat in order to organize Study tour

² See for guidance, for example: 'Resource Compendium of PRTR Release Estimation Techniques Part 2: Summary of Diffuse Source Techniques' available at http://www.oecd-ilibrary.org/economics/resource-compendium-of-prtr-release-estimation-techniques-part-2-summary-of-diffuse-source-techniques_oecd_papers-v6-art15-en

or workshop with Noeway, UK or other European country, which have PRTRs system in

5. Is your country already involved in bilateral cooperation with another country or international organisation in relation to PRTR development?

A: NO

- 6. If the answer is YES please describe whether your country is:
 - i) Currently receiving assistance on PRTR projects (please provide relevant details);
 - ii) Currently providing assistance on PRTR projects (please provide relevant details), or
 - iii) Currently involved in a bilateral exchange in which two or more countries are assisting each other in relation to PRTR developments (please provide relevant details).

A:_

- 7. Please provide any other information that you feel is relevant to the development of bilateral cooperation with your country on PRTRs.
- A: Necessary experts support, training and etc. for representatives from different state structures.

Please send your response by 9th March 2012 to the secretariat of the Protocol on PRTRs: public.participation@unece.org Many thanks for your contribution!

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I. POLLUTANT MONITORING

Part I aims to collect information on current activities in relation to pollutant monitoring in the countries, such as identifying who pays for the monitoring and who carries out the monitoring.

Ouestions

1. Who pays for the pollutant monitoring in your country?

A: Point source emission monitoring is financed by operators.

Point source emissions:

Point source emission monitoring is financed by operators and by the water inspection/provincial authorities.

Diffuse emissions:

Diffuse emissions to water bodies cannot be measured.

Water quality monitoring:

The water quality monitoring (surface water and groundwater) is based on the EU Water Framework Directive and national/regional water management requirements and is financed by national and provincial authorities. The legal basis is the Federal Water Act and details are regulated in the Ordinance on monitoring of water status "Verordnung des BMLFUW über

die Überwachung des Zustandes von Gewässern" (2006).

2. Who carries out the pollutant monitoring in your country?

A: The Umweltbundesamt is designated by law to prepare and annually update the Austrian air emission inventory which covers greenhouse gases and emissions of other air pollutants.

Water:

Point source emission monitoring is performed by operators and by the water inspection. The water quality monitoring is coordinated by federal and provincial authorities and performed by private companies and administrative bodies.

3. Please provide any other information that you feel is relevant to the development of effective pollutant monitoring in your country (e.g. current status of the activities in your country in relation to pollutant monitoring; how pollutant monitoring is carried out; specific pollutant monitoring methodologies used, etc).

A:

II. DIFFUSE RELEASES

Part II aims to identify methods in relation to measuring or estimating diffuse releases, such as releases from agricultural farms.

Ouestions

1. What are the diffuse releases that are measured, calculated or estimated in your country?

A · Air

various sources in the sectors industry, road transport, energy, domestic heating, agriculture and others;

Diffuse releases to air are not measured but are the difference between the national air emission inventory and point sources reported by the plant operators under the PRTR.

Water:

Diffuse emissions to water bodies cannot be measured. They can be calculated by modelling only. For Austria the modelling was done for Nitrogen and Phosphorus.

2. Who pays for measuring diffuse releases in your country?

A:

3. How is data collected for measuring diffuse releases, including releases from agricultural farms, in your country?

A:

4. Who carries out the measurement or estimation of diffuse releases, including releases from agricultural farms, in your country?

Air:

Within the Umweltbundesamt the Air Pollution Control & Climate Change Mitigation Department is responsible for the preparation and update of the Austrian air emission inventory as well as for the PRTR reporting obligation.

Water:

The Project of modelling diffuse emissions to surface waters was carried by Umweltbundesamt together with the Technical University Vienna and financed by the Ministry of Agriculture and Forestry, Environment and Water management.

5. What methodologies does your country use to measure or estimate diffuse releases³, including releases from agricultural farms? Please provide links to relevant data sources.

Air:

As mentioned above diffuse releases are the national air emission inventory reduced by the point sources reported under the PRTR;

Water:

MONERIS Modell

6. Please provide any other information that you feel is relevant to the measurement or estimation of diffuse releases in your country (e.g. additional needs in relation to measuring diffuse sources).

Water:

for many PRTR-relevant substances there is very little information available for diffuse emissions to surface waters. In Austria projects have started to improve data availability e.g. for emissions from paved areas (roads,...), for emissions from urban systems (Combined storm water overflows,...) and from atmospheric deposition.

¹ See for guidance, for example: 'Resource Compendium of PRTR Release Estimation Techniques Part 2: Summary of Diffuse Source Techniques' available at

http://www.oecdilibrary.org/economics/resourcecompendium-

of-prtr-release-estimation-techniques-part-2-summary-of-diffuse-source-techniques oecd papers-v6-art15-en

III. IDENTIFYING BILATERAL COOPERATIONS

Part III aims to identify potential for bilateral co operation between countries so as to help meet countries' needs for assistance and training in developing PRTRs.

Ouestions

1. Would your country like to receive bilateral assistance from another country in relation to PRTR development?

A: No

2. If the answer is YES please describe or list the PRTR functional areas and issues in which your country would most like to receive assistance or training.

A·

3. Can your country provide bilateral assistance on PRTR development to a country that is in need of assistance?

A: Yes

4. If the answer is YES please describe or list the PRTR functional areas and issues in which your country could offer assistance or training.

A: The Umweltbundesamt can provide

- technical assistance to implement the PRTR reporting obligations
- analysis and recommendations on the reporting cycle;
- assistance on preparation of guidelines and information for facilities and regional and federal authorities;
- Recommendations for quality checks for the PRTR reports;
- Preparation of PRTR reports in accordance with the reporting obligations of the

European Commission

5. Is your country already involved in bilateral cooperation with another country or international organisation in relation to PRTR development?

A: The Umweltbundesamt was involved in several twinning projects where PRTR training was

provided

For example:

2006: Romania: Implementation and Enforcement of the Environmental Acquis at National Level and Coordination of the other 8

2005/2006: LATVIA (LV2004/IB/EN/01): Data reporting on acidification, eutrophication and integrated pollution

2005: MALTA (MT 2003/IB/EN/03/TL): Establishment of an Environmental Integrated Permitting and Monitoring System

- 6. If the answer is YES please describe whether your country is:
 - i) Currently receiving assistance on PRTR projects (please provide relevant details);
 - ii) Currently providing assistance on PRTR projects (please provide relevant details), or
 - iii) Currently involved in a bilateral exchange in which two or more countries are assisting each other in relation to PRTR developments (please provide relevant details).

A:

7. Please provide any other information that you feel is relevant to the development of bilateral cooperation with your country on PRTRs.

A·		

Please send your response by 9th March 2012 to the secretariat of the Protocol on PRTRs: public.participation@unece.org Many thanks for your contribution!

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I. POLLUTANT MONITORING

Part I aims to collect information on current activities in relation to pollutant monitoring in the countries, such as identifying who pays for the monitoring and who carries out the monitoring.

Ouestions

1. Who pays for the pollutant monitoring in your country?

A: Financed by the state budget.

- 2. Who carries out the pollutant monitoring in your country?
- A: National Monitoring Department for Environment of the Ministry of Ecology and Natural Resources (MENR)
- 3. Please provide any other information that you feel is relevant to the development of effective pollutant monitoring in your country (e.g. current status of the activities in your country in relation to pollutant monitoring; how pollutant monitoring is carried out; specific pollutant monitoring methodologies used, etc.
- A: Conducted pursuant to the rule confirmed by the decision № 90 of the Cabinet of Ministers of the Republic of Azerbaijan dated 2006. The National Monitoring Department for Environment of MENR has continued its monitoring activities on the atmospheric air, rainfalls, soil, surface waters, as well as radioactive pollution of the environment within the territory of the country, carried out the assessment and prognostication of environmental processes caused by the anthropogenic effects, and set-up of database on the environmental condition, and currently prepares operative and routine data, and provides their broadcast. A station of background monitoring of atmospheric air has already been installed for the purpose of the improvement of an effective monitoring system. Furthermore, works on the installation of five automated monitoring stations are under way. Works on the launch of

complex laboratories in the regions such as Ganja and Masally for the purpose of more efficacious performance of environmental monitoring (air, water, soil and etc.) are in progress.

II. **DIFFUSE RELEASES**

Part II aims to identify methods in relation to measuring or estimating diffuse releases, such as releases from agricultural farms.

Ouestions

- 1. What are the diffuse releases that are measured, calculated or estimated in your country?
- A: Diffuse releases are not measured in Azerbaijan. Nevertheless, methane gas and nitric oxide released from agricultural farms are measured. In this regard, methane gas released from farms is measured in compliance with the methodology of the Intergovernmental Panel on Climate Change (IPCC) based on the data (number and keeping condition of livestock) of the State Statistics Committee.
- 2. Who pays for measuring diffuse releases in your country?
- A: Estimation of diffuse releases is financed by the state budget and at the expense of other projects via the Climate Change and Ozone Centre.
- 3. How is data collected for measuring diffuse releases, including releases from agricultural farms, in your country?
- A: Data on the creation of methane gas and nitric oxide alongside agricultural fields are collected by the State Statistics Committee, and based on these data they are estimated at the Climate Change and Ozone Centre in accordance with the IPCC methodology.
- 4. Who carries out the measurement or estimation of diffuse releases, including releases from agricultural farms, in your country?

A: Experts.

5. What methodologies does your country use to measure or estimate diffuse releases⁴, including releases from agricultural farms? Please provide links to relevant data sources?

- A: Estimation of diffuse releases along with the releases of agricultural farms is carried out in conformity with the IPCC methodology, and data necessary for the estimation are provided by the State Statistics Committee.
- 6. Please provide any other information that you feel is relevant to the measurement or estimation of diffuse releases in your country (e.g. additional needs in relation to measuring diffuse sources).
- A: In order to more effectively implement the measure and estimation of diffuse releases in Azerbaijan, diffuse sources should be included in the monitoring system, alongside the register of substances and indication of available pollutant limits.

III. IDENTIFYING BILATERAL COOPERATIONS

⁴ See for guidance, for example: 'Resource Compendium of PRTR Release Estimation Techniques Part 2: Summary of Diffuse Source Techniques' available at http://www.oecd-ilibrary.org/economics/resource- compendium-of-prtr-release-estimation-techniques-part-2-summary-of-diffuse-source-techniques oecd papers-v6art15-en

Part III aims to identify potential for bilateral co operation between countries so as to help meet countries' needs for assistance and training in developing PRTRs.

Questions

1. Would your country like to receive bilateral assistance from another country in relation to PRTR development?

A: Yes

- 2. If the answer is YES please describe or list the PRTR functional areas and issues in which your country would most like to receive assistance or training?
- A: Training on the set-up of pollutant register and expertise of other countries.
- 3. Can your country provide bilateral assistance on PRTR development to a country that is in need of assistance?
- A: Would be considered if applied.
- 4. If the answer is YES please describe or list the PRTR functional areas and issues in which your country could offer assistance or training?
- A: Notwithstanding, certain works on the preparation of pollutant register regarding some indices (hazardous chemical substances and pollutants), the register is not fully ready yet. Therefore, additional arrangements and consultations are needed for rendering assistance and conducting trainings on the bilateral cooperation with other countries.
- 5. Is your country already involved in bilateral cooperation with another country or international organisation in relation to PRTR development?
- A: Yes. Global Waste Management Network, Organization of Strategic Approach to International Chemicals Management and United Nations Environment Programme (UNEP).
- 6. If the answer is YES please describe whether your country is:
 - i) Currently receiving assistance on PRTR projects (please provide relevant details);
 - ii) Currently providing assistance on PRTR projects (please provide relevant details), or
 - iii) Currently involved in a bilateral exchange in which two or more countries are assisting each other in relation to PRTR developments (please provide relevant details).
- A(i): Does not receive assistance yet. But draft proposal on the preparation of pollutant register has been presented with the support of Global Waste Management Network, Organization of Strategic Approach to International Chemicals Management and United Nations Environment Programme (UNEP).
- A(ii): Does not render assistance
- A(iii): Money for pollutants is transferred to funds
- 7. Please provide any other information that you feel is relevant to the development of bilateral cooperation with your country on PRTRs.
- A: Cooperation on the set-up of pollutant register with certain countries already prepared such a register is intended.

BELGIUM

Important remark: In Belgium, the environmental responsibilities lie within the regions (Flemish (Fl), Walloon (RW) and Brussels Capital Region (RBC)). Each region prepared its response to the questionnaire. Those responses have been put together in this report . If possible a global answer for Belgium is given. Otherwise, the answer is specified per region. The Working Group on 'PRTR' (Regional authority) of the Coordination Committee for International Environmental Policy (CCIEP) coordinates the harmonisation among the regions.

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I. POLLUTANT MONITORING

Part I aims to collect information on current activities in relation to pollutant monitoring in the countries, such as identifying who pays for the monitoring and who carries out the monitoring.

Questions

- 1. Who pays for the pollutant monitoring in your country?
- A: For point sources: the operator of the plant
- 2. Who carries out the pollutant monitoring in your country?
- A: For point sources: the operator of the plant.
- 3. Please provide any other information that you feel is relevant to the development of effective pollutant monitoring in your country (e.g. current status of the activities in your country in relation to pollutant monitoring; how pollutant monitoring is carried out; specific pollutant monitoring methodologies used, etc).
- A: The environmental permit obliges pollutant monitoring including e.g. a list of pollutants and frequency. The environmental inspection is also carrying out emission measurements to control the monitoring done by the operators.

Besides this monitoring, the authority carries out general monitoring of air and water quality.

II. DIFFUSE RELEASES

Part II aims to identify methods in relation to measuring or estimating diffuse releases, such as releases from agricultural farms.

Ouestions

1. What are the diffuse releases that are measured, calculated or estimated in your country?

A:

Brussels Capital Region

▶ DIFFUSE EMISSIONS CALCULATION

Main sources

The main part of diffuse emissions in Brussels Capital Region originate from energy consumption for buildings heating, and from road transport.

The emissions due to the heating of buildings distinguishes the emissions by households, in the tertiary sector and (to a lower extend) from industrial buildings. The emissions are calculated based on activity data (the energy use by sector is determined every year through the integrated energy balance of the Brussels Capital Region - http://www.bruxellesenvironnement.be/Templates/news.aspx?id=30573&langtype=2060&site=pa) and emission factors

The exhaust emissions from road traffic are calculated using the Myrtille model, specifically developed and adapted to the Brussels scheme, in combination with Copert IV.

Other sources

Emissions of mobile machinery not intended for use on the road are calculated by the mathematical model OFFREM (specification for different sectors, e.g. forestry, households,...).

CO₂ emissions by land use, land use change and forestry (LULUCF) are calculated by an internationally accepted methodology.

Emissions from railway traffic, inland navigation, agriculture, wastewater treatment and solvents

(anaesthetics in hospitals) are calculated by combining activity data with emission factors, according to international IPCC guidelines.

Fugitive emissions from fuels (natural gas : CH₄) are estimated by combining the distribution network characteristics with a release factor.

Emissions from industrial processes and product use are limited to some fluorinated gases, which are calculated at the Belgian level by Econotec/VITO.

► AIR QUALITY MEASUREMENT

Diffuse releases that are measured:

Two air quality networks co-exist: a telemetric network to have near real time concentration of air pollutants and a non-telemetric network to have concentration of other pollutants a posterior. The network is growing up continuously in order to respond to the European directives.

The stations are spread over the Brussels Capital Regions. A good representativeness of the air quality is thus done (traffic site, residential site, industrial site, background site).

The pollutants measured in the telemetric network are:

- PM10 : in 6 stations
- PM2.5 : in 5 stations
- Black Carbon (since 2008): in 3 stations
- NO_X and NO₂: in 10 stations
- Ozone (O₃): in 7 stations
- Benzene, Toluene and Xylene: in 2 stations
- CO: in 8 stations
- SO₂: in 8 stations
- CO₂: in 3 stations
- Hg: in 1 station

The pollutants measured in the non-telemetric network are:

- Heavy metals (Pb, Cu, As, Ni, Cr, Cd, Hg)
- NH₃, F⁻ and Cl⁻
- Volatile Organic Compounds : n.pentane, n.hexane, 2-methylhexane, n.heptane, n.octane, 1,2dichloroethane, tetrachloroetylene, benzene, toluene, meta- and para-xylene, oto-xylene, ethylbenzene
- PAH: benzo(a)pyrene, benzo(e)pyrene, benzo(bjk)fluoranthene, benzo(ghi)perylene, indeno(123cd)pyrene, benzo(a)anthracene, fluoranthene, pyrene, dibenzo(a,h)anthracene

Diffuse releases calculated:

As recommended by the directive 2008/50/EC, a short-term action plan exists in the Brussels Capital Region. This plan contains the measures to be taken when there is a risk of the limit values for PM10 and NO₂ being exceeded, in order to reduce that risk and limit the duration of such an event.

This action plan will be applied when the PM10 or/and NO₂ concentrations forecasted by IRCEL-CELINE

(IRCEL-CELINE was created in 1994 and is in charge of the interregional collaboration on air quality matter between the three regions in Belgium⁵) exceed specified thresholds during at least two consecutive. The pollutant concentrations are forecasted using namely the CHIMERE model.

In practice, the action starts 24 hours before the beginning of the pollution event: an information bulletin is sent to the medias and the authorities in order to largely inform the public. If the measurements done during the first day of the pollution event confirm the forecasted levels of PM10 or/and NO_2 , the restricting measures on traffic are become active from the second day of the event on.

Flemish Region

► AIR

Industrial releases not covered by individual environmental reports:

The facilities (point sources) are responsible for the major contribution of the industrial emissions. They communicate this information to the competent authorities in a yearly integrated environmental report. Besides these emissions at plant level, the releases by industrial activities which are not obliged to fill in an environmental report (below the reporting threshold), are estimated in a collective way to obtain a more complete picture of the total industrial emissions.

Releases by heating of buildings:

The emissions due to the heating of buildings distinguishes the emissions by households and the emissions in the tertiary sector (commercial/institutional). The emissions are calculated based on activity data (energy use, Flemish Energy Balance) and emission factors.

Releases by transport:

- road traffic: exhaust emissions of road traffic are calculated by the mathematical model Mimosa (tuned to Copert IV), optimised for the Flemish road traffic situation,
- aviation: exhaust emissions by air planes are calculated using activity data (air plane movements and types) and internationally accepted emission factors,
- railways: exhaust emissions of railway traffic are calculated by the mathematical model EMMOSS.
- navigation: emissions of inland and maritime navigation are calculated by the mathematical model EMMOSS,
- fishing: the calculation of emissions by offshore fishing is mainly based on activity data (Flemish Energy Balance) and internationally accepted emission factors.

Releases by off-road:

Emissions of mobile machinery not intended for use on the road are calculated by the mathematical model OFFREM (specification for different sectors, e.g. forestry, households,...).

Releases by agri- and horticulture and nature:

- cattle: the emissions by cattle manure are calculated by the mathematical model EMAV (NH₃) or by using activity data and internationally accepted emission factors (other pollutants),
- fertilizer: fugitive emissions by the use of fertilizer are also calculated by the mathematical model EMAV.
- manure processing: NH₃ emission due to the handling of cattle manure is calculated by EMAV,
- agricultural land and nature: emissions due to biological soil processes are estimated by a methodology based on international guidelines,

⁵ 8 mai 1994 – accord de coopération entre les Régions bruxelloise, flamande et wallonne en matière de surveillance des émissions atmosphériques et de structuration des données. (MONITEUR BELGE DU 24.06.1994, p. 17211)

• use of fuels: the emissions by the use of fuels in agri- and horticulture are calculated with the data of fuel (Flemish Energy Balance) and specific emission factors.

Releases by land use, land use change and forestry (LULUCF):

CO₂ emissions by land use, land use change and forestry are calculated by an internationally accepted methodology.

Releases by septic tanks

• Wastewater emissions are estimated based on IPCC guidelines.

Note: as is mentioned above, all diffuse emissions are calculated. The air quality (which differs from releases to the air) is monitored by an air quality network with several telemetric stations spread over Flanders. This enables us to evaluate the air quality every hour.

► WATER

The Flemish Region is currently developing the WEISS-model (see http://weiss.vmm.be). With this model the Flemish Region will in the future be able to calculate and report diffuse emissions from different sources to surface waters.

►WASTE

In Flanders, 50.000 companies produce industrial waste, but only 2% is included in E-PRTR. The waste amount from Flemish E-PRTR facilities accounts for only 27% of the real amount of waste, as reported for e.g. the Waste Statistics Regulation. This "surplus" amount of waste is referred to as "waste from diffuse sources". It has two possible sources: 1) Companies with other activities than E-PRTR activities (E.g. Apothecaries, photo labs, aviation, hospitals, ...), 2) Companies with E-PRTR activities but waste amounts below threshold.

Walloon Region

► AIR Calculated diffuse emissions

Industrial releases not covered by individual environmental reports:

In 2003, an environmental integrated survey has been created which includes all relevant environment-related reporting requirements for 300 companies, considered as point sources. The environmental integrated survey is personalised to the 300 operators of the activities/installations pointed out by one or several regulations (four international Conventions and their protocols⁶, eight European Directives⁷, three European Regulations⁸, two European Decisions⁹, one European Recommendation¹⁰, two Walloon laws¹¹, one Walloon Decree¹² and several non legally binding agreements¹³).

The emissions of smaller plants not covered by the survey are estimated based on activity data from the

⁶ 1992 UN Framework Convention on climate change (UNFCCC) and its Protocol, Convention on long range transboundary air pollution (CLRTAP) and their Protocols, POP's Stockholm Convention and UNECE PRTR Protocol to the Aarhus Convention.

⁷ 2003/87/EC Directive on green house gas emission trading, IPPC Directive, 2001/80/EC Directive on large combustion plant (LCP), 2000/ 60/EC Directive (water framework Directive), 1999/13/EC Directive (solvent), 91/414/EC Directive regarding placing of plant products on the market, 76/464/EEC Directive concerning pollution caused by dangerous substances discharged into the aquatic environment, Directive 91/689/CE on dangerous wastes.

⁸ EC 850/2004 Regulation concerning persistent organic pollutants (POP's), 2150/2002/EC Regulation on waste statistics and E-PRTR project Regulation.

⁹ Commission Decision of 29/01/2004 establishing guidelines for the monitoring and reporting of greenhouse gas emissions, 2000/479/EC Decision implementing EPER.

¹⁰ Commission Recommendation of 30 may 2001 on the recognition, measurement and disclosure of environmental issues in the annual accounts and annual reports of companies

¹¹ AGW (Walloon government decree) of 13-11-02 on power plant permit conditions, AGW (Walloon government decree) of 9 april 1992 on dangerous waste.

¹² Walloon Decree of 10 november 2004 establishing a scheme for greenhouse gas emission allowance trading.

¹³ OECD/Eurostat Joint Questionnaires on waste, expenditure and regional statistics.

Walloon energy balance

Releases by heating of buildings:

The emissions due to the heating of buildings in residential and tertiary sector (commercial/institutional) are calculated based on activity data from the Walloon energy balance and emission factors.

Releases by transport:

- road traffic: exhaust emissions of road traffic are calculated using Copert IV.
- aviation: exhaust emissions by air planes are calculated using activity data (LTO activities and fuel consumption) and internationally agreed emission factors,
- railways and navigation: In the 3 regions the fuel consumption is based on a proportional fraction of fuel used in Belgium for rail transportation
- navigation: emissions are calculated based on activity data from the Walloon energy balance and emission factors

Releases by off-road:

Emissions of mobile machinery not intended for use on the road are calculated by the mathematical model OFFREM (specification for different sectors, e.g. forestry, households,...).

Releases by agriculture:

- Emissions are calculated with IPCC and EMEP methodologies, using regional activity data on livestock, crops and mineral fertilizer use.
- use of fuels: the emissions by the use of fuels in agriculture are calculated with the data of fuel use (Walloon Energy Balance) and emission factors.

Waste:

- Emissions in SWDS are calculated with IPCC FOD model, and biogas recovery data come from direct measurements in the SWDS.
- Wastewater emissions are estimated based on IPCC guidelines.

Land use, land use change and forestry (LULUCF):

GHG emissions and removals from forests and land-use change are calculated based on IPCC methodology using activity data from the Walloon permanent regional forest inventory and some regional-specific studies (carbon in soils, annual increment,...)

Note: As in the Flemish region, diffuse emissions are calculated, for the purpose of international reporting and regional policy making. It is unclear to us what is meant in the current questionnaire by the 'measurement' of diffuse emissions. The air quality (which differs from releases to the air) is monitored by an air quality network with several telemetric stations spread over Wallonia.

► WATER

Estimation des émissions diffuses d'origine agricole en eaux de surface et souterraines en Wallonie

« Pour pouvoir prédire le comportement des eaux de surface et des eaux souterraines face à la pollution diffuse d'origine agricole, la Région wallonne fait appel au modèle EPICgrid.

Le modèle EPiCgrid est un modèle hydrologique de bassin versant développé par l'Unité d'Hydrologie et d'Hydraulique agricole de Gembloux Agro-Bio Tech de l'Université de Liège (Sohier, 2011) sur base du modèle parcellaire EPIC (Williams et al., 1984).

Le modèle EPICgrid combine une description fine des relations entre le climat, l'eau, le sol et les plantes, telle que rencontrée dans les modèles 'Eau-Sol-Plantes' à l'échelle d'une parcelle élémentaire, et une description spatialement discrétisée du bassin versant ; en particulier, le modèle simule quotidiennement la croissance des plantes, la variation d'humidité du sol en relation avec la transpiration des végétaux.

Le modèle EPICgrid simule, jour après jour, pour chaque maille du bassin versant pondérée de ses composantes, les flux d'eau et de nutriments (azote, phosphore) vers les eaux de surface et vers les eaux souterraines. De plus, une composante « érosion » permet d'estimer les quantités de sédiments, et de nutriments associés, qui rejoignent les rivières. »

2. Who pays for measuring diffuse releases in your country?

A:

Brussels Capital Region

As mentioned above, Belgium is divided into three Regions (Brussels Capital, Flemish and Walloon regions), which have to draw their own air quality plan.

Within the institutional reform in 1989, most of the competences of the environmental policy were transferred to the three regions. Brussels Environment (IBGE-BIM) was thus created at this time. The competence of Brussels Capital in this domain concerned amongst other the measurements of air quality and the achievement of annual pollutants emissions inventories. Brussels Environment acts, from the regulatory standpoint, as a research, planning, advisory and information body, as well as an issuer of permits, and a surveillance and control agency. From the sectoral standpoint, it has authority in the areas of waste, air quality, noise, parks and forests, water, soil and energy.

Since 1994, Brussels Environment is in charge of the monitoring of the air quality. The air quality network is financed by the Brussels Capital Region.

Flemish Region

By decree, the Flemish Environment Agency (VMM) draws up the air emission inventory and guards the air quality. All diffuse releases to the air are calculated by the Air Emission Inventory Team which operates within the Department of Air, Environment and Communication. The Flemish Environment Agency also plays a crucial role in the integral water policy.

The Public Waste Agency of Flanders (OVAM) is responsible for waste management and soil remediation in Flanders.

Walloon Region

The Walloon Agency for Air and Climate (AWAC) is the Walloon administration with the overall responsibility for setting up the inventory of air pollutant emissions. This is stated in the following decree of the Walloon Government: Arrêté du Gouvernement Wallon du 3 juillet 2008 portant organisation de l'Agence Wallonne de l'Air et du Climat.

3. How is data collected for measuring diffuse releases, including releases from agricultural farms, in your country?

A:

Brussels Capital Region

Brussels Environment (IBGE-BIM) is responsible for the achievement of annual pollutants emissions inventories. The Brussels Energy Balance is the main source for data on fuel use. Other activity data are obtained from the respective competent authorities (e.g. total number of kilometres driven to calculate road emissions are obtained from federal transport statistics, gross ton kilometres of trains are provided by the NMBS holding...) or other involved parties. Emission factors are taken from internationally accepted sources (EMEP/EEA guidebook, IPCC guidelines,...) or are obtained through studies carried out under the authority of Brussels Environment.

For air quality measurement purposes, the telemetric network is a near real time one and then the data are transferred via phone lines.

For the non-telemetric network, Brussels environment collects the samplers to analyse them. The concentrations of pollutants can be then quantified.

The ammoniac emission is very low in the Brussels Capital region. Agriculture is not an ammoniac source in the Brussels Capital Region which is an urban area.

Flemish Region

As is mentioned above, all diffuse air emissions are calculated by the Flemish Environment Agency, based on activity data and emission factors. The Flemish Energy Balance is the main source for data on fuel use. Other activity data are obtained from the respective competent authorities (e.g. total number of kilometres driven on Flemish roads to calculate road emissions are obtained from the Flemish Traffic Centre, gross ton kilometres of trains are provided by the NMBS holding, number of animals is supplied by the Flemish Land Agency,...) or other involved parties (e.g. statistical yearbooks of airports, the International Fertilizer Organisation provides data on yearly fertiliser use, ...). Emission factors are taken from internationally accepted sources (EMEP/EEA guidebook, IPCC guidelines,...) or are obtained through studies carried out under the authority of the Flemish Environment Agency.

Waste from diffuse sources is – at present - not reported in the framework of the E-PRTR legislation. In Flanders, it will be reported and visualised in the near future on the Flemish PRTR site (prtr.vlaanderen.be). The amount of waste from diffuse sources is calculated as follows: a statistically sound selection of companies reports their waste production, in the same way and format as the E-PRTR facilities. Subsequently, these amounts are extrapolated (taking into account the number of companies per economic sector) to estimate the total amount of waste produced in Flanders.

Walloon Region

No systematic measurements of diffuse emissions occur in Wallonia. As mentioned by the Flemish Region, all diffuse emissions are calculated in order to set up the inventory of air pollutant emissions. The air quality (which differs from releases to the air) is monitored by an air quality network which consists of 23 fixed air quality monitoring stations spread over Wallonia. Wallonia can also use mobile air quality monitoring stations in order to evaluate the air quality in a specific place and identify a potential source of pollution. However, these stations cannot quantify the diffuse emissions of a specific point source.

4. Who carries out the measurement or estimation of diffuse releases, including releases from agricultural farms, in your country?

A:

Brussels Capital Region

Brussels Environment (IBGE-BIM) carries out and analyses the measurements himself.

Flemish Region: see above (II.3)

Walloon Region

No systematic measurements of diffuse emissions from agricultural sources occur in Wallonia, given the technical challenges and high costs of such a monitoring. The emissions (GHG, NH₃, dust) are estimated by the AWAC (Walloon Agency for Air and Climate).

5. What methodologies does your country use to measure or estimate diffuse releases 14, including releases

¹⁴ See for guidance, for example: 'Resource Compendium of PRTR Release Estimation Techniques Part 2: Summary of Diffuse Source Techniques' available at http://www.oecd-ilibrary.org/economics/resource-

from agricultural farms? Please provide links to relevant data sources.

A: Information on technical aspects and methodologies used by the 3 regions in Belgium is given in the National Inventory Report (descriptive and numerical information for all greenhouse gases) http://unfccc.int/national_reports/annex_i_ghg_inventories/national_inventories_submissions/items/5888.php) and the Informative Inventory Report (non greenhouse gases, background information on air emissions reported to LRTAP) (http://cdr.eionet.europa.eu/be/un/UNECE_CLRTAP_BE/envt2izjw). Also the E-PRTR report on practice and measures (Reporting questionnaire relating to Regulation (EC) No 166/2006 contains some interesting links to regional websites) (http://cdr.eionet.europa.eu/be/eu/eprtrpam/envtzmy9a).

Brussels Capital Region

For air quality measurement purposes, all the monitors use the reference method described in the directive 2008/50/CE except for the fine particle measurements. For more details on each techniques, see the technical reports on Brussels Environment website:

http://documentation.bruxellesenvironnement.be/documents/Rpt0608_annA_systemesMesure_fr.PDF All the monitors are regularly calibrated.

Flemish Region

A general overview of the emissions to the air (both point sources and diffuse sources) is available on http://www.vmm.be/pub/jaarverslag-lozingen-in-de-lucht-1990-2010 (in dutch).

Walloon Region

Methodologies are based on IPCC guidelines for GHG inventories and EMEP/corinair handbook for NH3. Some emission factors also come from studies launched by the AWAC.

6. Please provide any other information that you feel is relevant to the measurement or estimation of diffuse releases in your country (e.g. additional needs in relation to measuring diffuse sources).

A:

III. IDENTIFYING BILATERAL COOPERATIONS

Part III aims to identify potential for bilateral co operation between countries so as to help meet countries' needs for assistance and training in developing PRTRs.

Ouestions

1. Would your country like to receive bilateral assistance from another country in relation to PRTR development?

A: no

2. If the answer is YES please describe or list the PRTR functional areas and issues in which your country would most like to receive assistance or training.

A:

 $\underline{compendium-of\text{-}prtr\text{-}release\text{-}estimation\text{-}techniques\text{-}part\text{-}2\text{-}summary\text{-}of\text{-}diffuse\text{-}source\text{-}techniques\text{_}oecd\text{_}papers\text{-}v6\text{-}}{art15\text{-}en}$

3. Can your country provide bilateral assistance on PRTR development to a country that is in need of assistance?

A: no

4. If the answer is YES please describe or list the PRTR functional areas and issues in which your country could offer assistance or training.

A:

5. Is your country already involved in bilateral cooperation with another country or international organisation in relation to PRTR development?

A: no

- 6. If the answer is YES please describe whether your country is:
 - iv) Currently receiving assistance on PRTR projects (please provide relevant details);
 - v) Currently providing assistance on PRTR projects (please provide relevant details), or
 - vi) Currently involved in a bilateral exchange in which two or more countries are assisting each other in relation to PRTR developments (please provide relevant details).

A:

7. Please provide any other information that you feel is relevant to the development of bilateral cooperation with your country on PRTRs.

A:

Please send your response by 9th March 2012 to the secretariat of the Protocol on PRTRs: public.participation@unece.org Many thanks for your contribution!

BULGARIA

CONTACT INFORMATION

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I. POLLUTANT MONITORING

Part I aims to collect information on current activities in relation to pollutant monitoring in the countries, such as identifying who pays for the monitoring and who carries out the monitoring.

Questions

1. Who pays for the pollutant monitoring in your country?

A: The self monitoring of the pollutants in Bulgaria is paid by the installations' operators.

The control monitoring of the pollutants is paid by the competent authorities. In the cases of control monitoring when the emission limit values are exceeded the installations' operators pay for the monitoring.

2. Who carries out the pollutant monitoring in your country?

A: The self monitoring of the pollutants in Bulgaria is carried out by the installations' operators through accredited laboratories or by using approved methods (as in the case of continuous monitoring). The monitoring data are validated by the competent authorities.

The control monitoring of the pollutants in Bulgaria is carried out by the competent authorities.

- 3. Please provide any other information that you feel is relevant to the development of effective pollutant monitoring in your country (e.g. current status of the activities in your country in relation to pollutant monitoring; how pollutant monitoring is carried out; specific pollutant monitoring methodologies used, etc).
- A: As required by the national legislation the self monitoring is carried out by the installations' operators through accredited laboratories or by using approved methods.

The control monitoring of the pollutants is carried out by using reference methods according to the current European standards.

The laboratories which carry out the control as well as self monitoring of the pollutants are accredited according EN ISO 17025/2005r.

The emissions in air are also determined by calculation methods using CORINAIR methodology, adapted for Bulgaria.

With regard to the pollutant releases and transfers reporting (according to the requirements of Regulation (EC) No 166/2006 of the European Parliament and of the Council of 18 January 2006 concerning the establishment of a European Pollutant Release and Transfer Register and amending Council Directives 91/689/EEC and 96/61/EC) Bulgaria foresees a preparation of a methodology to estimate the mass load from waste water discharging sources. The methodology should include estimations of the annual waste water emissions both from point and diffuse sources.

II. DIFFUSE RELEASES

Part II aims to identify methods in relation to measuring or estimating diffuse releases, such as releases from agricultural farms.

Questions

1. What are the diffuse releases that are measured, calculated or estimated in your country?

A: The diffuse emissions in Bulgaria are not measured. These emissions which are reported under different reporting obligations (for example Regulation (EC) No 166/2006 of the European Parliament and of the Council of 18 January 2006 concerning the establishment of a European Pollutant Release and Transfer Register, UNECE Convention on Long-range Transboundary Air Pollution (UNECE/CLRTAP), United Nations Framework Convention on Climate Change (UNFCCC), Directive 2001/81/EC for national emissions ceilings and Decision 280/2004/EC concerning a mechanism for monitoring Community greenhouse gas emissions and for implementing the Kyoto Protocol) are calculated or estimated. Diffuse emissions according to the abovementioned requirements are reported from the following activities: transport, residential emissions, usage of solvents, agriculture, landfills, mining activities, oil and natural gas system, LULUCF.

2. Who pays for measuring diffuse releases in your country?

A: The diffuse emissions in Bulgaria are not measured.

3. How is data collected for measuring diffuse releases, including releases from agricultural farms, in your country?

A: The diffuse emissions in Bulgaria are not measured.

The installations' operators who are subject of reporting under Regulation (EC) No 166/2006 of the European Parliament and of the Council of 18 January 2006 concerning the establishment of a European Pollutant Release and Transfer Register calculate and report their emissions in the national E-PRTR system, their data are then validated by the competent authorities and included in the national E-PRTR report.

The competent authorities who are responsible for reporting under UNECE/CLRTAP, UNFCCC, Directive 2001/81/EC, Decision 280/2004/EC, collect data on the annual basis mainly from national statistics (National Statistical Institute, Ministry of agriculture and food supply/Agrostatistics Department).

4. Who carries out the measurement or estimation of diffuse releases, including releases from agricultural farms, in your country?

A: The estimation of diffuse releases is carried out by the installations' operators who are obliged to report under Regulation (EC) No 166/2006 of the European Parliament and of the Council of 18 January 2006 concerning the establishment of a European Pollutant Release and Transfer Register.

The estimation of diffuse releases is carried out by the competent authorities as required by the reporting obligations of UNECE Convention on Long-range Transboundary Air Pollution (UNECE/CLRTAP), United Nations Framework Convention on Climate Change

(UNFCCC), Directive 2001/81/EC for national emissions ceilings and Decision 280/2004/EC concerning a mechanism for monitoring Community greenhouse gas emissions and for implementing the Kyoto Protocol.

- 5. What methodologies does your country use to measure or estimate diffuse releases¹⁵, including releases from agricultural farms? Please provide links to relevant data sources.
- A: The methodologies used in Bulgaria to estimate diffuse releases to air, including releases from agricultural farms, are the following:
 - 1) EMEP CORINAIR emission inventory guidebook (http://www.eea.europa.eu/themes/air/emep-eea-air-pollutant-emission-inventory-guidebook/emep)
 - 2) Revised 1996 IPCC guidelines for national greenhouse gas inventory (http://www.ipcc-nggip.iges.or.jp/public/gl/invs1.html)
 - 3) IPCC Good Practice Guidance and Uncertainty Management in National Greenhouse Gas Inventories (http://www.ipcc-nggip.iges.or.jp/public/gp/english/index.html
 - 4) IPCC good practice guidance for land use, land-use change and forestry (http://www.ipcc-nggip.iges.or.jp/public/gpglulucf/gpglulucf.html)

Based on the above methodologies Bulgaria developed Common methodology for emissions inventory under CLRTAP and UNFCCC, approved with Order RD 40 from 22.01.2008 of MoEW (http://eea.government.bg/bg/legislation/air/mpg-07/Metodika 2007.html)

6. Please provide any other information that you feel is relevant to the measurement or estimation of diffuse releases in your country (e.g. additional needs in relation to measuring diffuse sources).

A: -

III. IDENTIFYING BILATERAL COOPERATIONS

Part III aims to identify potential for bilateral co operation between countries so as to help meet countries' needs for assistance and training in developing PRTRs.

Ouestions

1. Would your country like to receive bilateral assistance from another country in relation to PRTR development?

A: Yes, our country would like to receive bilateral assistance from another country.

2. If the answer is YES please describe or list the PRTR functional areas and issues in which your country would most like to receive assistance or training.

A: Bulgaria would like to receive assistance on the following:

- measurement and calculation of emissions from diffuse sources in air and water;
- deciding on emissions reporting (which result to report under E-PRTR) in cases of vast discrepancies in atmospheric emissions values obtained by measurement and calculation methods.

¹⁵ See for guidance, for example: 'Resource Compendium of PRTR Release Estimation Techniques Part 2: Summary of Diffuse Source Techniques' available at http://www.oecd-ilibrary.org/economics/resource-compendium-of-prtr-release-estimation-techniques-part-2-summary-of-diffuse-source-techniques_oecd_papers-v6-art15-en

3. Can your country provide bilateral assistance on PRTR development to a country that is in need of assistance?

A: No

4. If the answer is YES please describe or list the PRTR functional areas and issues in which your country could offer assistance or training.

A: -

5. Is your country already involved in bilateral cooperation with another country or international organisation in relation to PRTR development?

A: No

- 6. If the answer is YES please describe whether your country is:
 - vii) Currently receiving assistance on PRTR projects (please provide relevant details);
 - viii) Currently providing assistance on PRTR projects (please provide relevant details), or
 - ix) Currently involved in a bilateral exchange in which two or more countries are assisting each other in relation to PRTR developments (please provide relevant details).

A: -

7. Please provide any other information that you feel is relevant to the development of bilateral cooperation with your country on PRTRs.

A: -

Please send your response by 9th March 2012 to the secretariat of the Protocol on PRTRs: public.participation@unece.org Many thanks for your contribution!

CONTACT INFORMATION Please provide name and contact data of the person who filled in the questionnaire: First Name: JAN. Last Name: (Ms/Mr) MARŠÁK... (Ing., Ph.D.). Position: Head of the Unit of IPPC and the Integrated Pollution Register. (Department of EIA and Integrated Prevention). Name of the Organization: Ministry of the Environment of the Czech republic Address: Vršovická 65, 100 10 Praha 10, Czech republic Telephone: + 420 267 122 477. Mobile phone: + 420 724 450 395. Fax: + 420 267 126 477 E-mail: Jan.Marsak@mzp.cz Website: www.mzp.cz, www.irz.cz.

I. POLLUTANT MONITORING

Part I aims to collect information on current activities in relation to pollutant monitoring in the countries, such as identifying who pays for the monitoring and who carries out the monitoring.

Ouestions

- 1. Who pays for the pollutant monitoring in your country?
- A: Pollutant monitoring is paid from different sources.

Emissions monitoring, which For the E-PRTR and the National Pollution Register (Integrated Pollution Register - IPR) purposes monitoring of pollutants is paid by operators of facilities.

Imissions monitoring is financially supported by the Ministry of the Environment of the Czech republic (ME CZ), from the state budget.

- 2. Who carries out the pollutant monitoring in your country?
- A: The Pollutant monitoring is carried out through the National Pollution Register (Integrated Pollution Register IPR) and other registers. IPR has been established and managed by the Ministry of the Environment of the Czech republic in cooperation with the Czech Environmental Information Agency (CENIA) and the Czech Environmental Inspectorate (CEI). The Ministry of the Environment regularly publishes data reported in the IPR and public administration portal. In addition to above mentioned activities it also ensures transmission of data to the European Commission in accordance with the requirements of directly applicable European Community and in accordance with international obligations. The CENIA as a IPR operator ensures registration of pollution sources (operational facilities), communicates with them, collects of required data, processes them and prepares them for publication on the Internet. CEI is primarily responsible for supervising of compliance with the reporting requirements. It is also responsible for control of recorded data sent to the IPR.
- 3. Please provide any other information that you feel is relevant to the development of effective pollutant monitoring in your country (e.g. current status of the activities in your country in relation to pollutant monitoring; how pollutant monitoring is carried out; specific pollutant monitoring methodologies used, etc).
- A: For more effective data collection of monitored pollutants the Integrated system of performance reporting obligations (ISPOP, http://www.ispop.cz) has been established. This system allows a fulfillment of many reporting obligations (including of obligation to report data into the IPR) by only one electronical tool. This system will allow further computerization of reporting obligations.

II. DIFFUSE RELEASES

Part II aims to identify methods in relation to measuring or estimating diffuse releases, such as releases from agricultural farms.

Ouestions

- 1. What are the diffuse releases that are measured, calculated or estimated in your country?
- A: As the most common method for determination of the diffuse sources a calculation or estimation (on the basis of different models) are used. Releases from diffuse sources on the farm are calculated on the basis of national emission factors.
- 2. Who pays for measuring diffuse releases in your country?
- A: Measuring and monitoring of diffuse releases is financially supported by the Ministry of the Environment of the Czech republic (MOE) or Ministry of the Agriculture, from the state budget.
- 3. How is data collected for measuring diffuse releases, including releases from agricultural farms, in your country?
- A: Data on diffuse releases to air are collected within the Air Quality Information System (ISKO) operated by the Czech Hydrometerlogical Institute (CHMI). The ISKO system is divided into four subgroups (databases) called REZZO 1 4 (Register of Emissions and Air Pollution Sources). Each of them serves for archiving and presenting of data on stationary and mobile sources of air pollution. As input data for determination of emission balances for large and small sources of pollution the Total operating records are used. For agricultural sources data are calculated on the basis of national emission factors. For determination of emissions from small sources (e.g. households, family houses, etc) a methodology based on data collection from the Statistical Census has been compiled. Outputs of this methodology include information on the consumption of principal fuels in households. Data referring to emissions of pollutants from mobile sources are calculated from the processed data on automotive fuel consumption and emission factors. Data on diffuse releases to water are collected within the Assessment and reference Reports of Water Monitoring (IS Arrow).
- 4. Who carries out the measurement or estimation of diffuse releases, including releases from agricultural farms, in your country?
- A: The measurement or estimation of diffuse releases is carried out through the Air Quality Information System and the Assessment and reference Reports of Water Monitoring. This registers has been established and managed by the Ministry of the Environment of the Czech republic in cooperation with Czech Hydrometeorological Institute.
- 5. What methodologies does your country use to measure or estimate diffuse releases ¹⁶, including releases from agricultural farms? Please provide links to relevant data sources.
- A: In the Czech republic are used calculation or estimation for determination of the diffuse sources. Relevant data are available on the: http://portal.chmi.cz/files/portal/docs/uoco/isko/grafroc/grafroc_CZ.html and http://hydro.chmi.cz/isarrow/.
- 6. Please provide any other information that you feel is relevant to the measurement or estimation of diffuse releases in your country (e.g. additional needs in relation to measuring diffuse sources).

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¹⁶ See for guidance, for example: 'Resource Compendium of PRTR Release Estimation Techniques Part 2: Summary of Diffuse Source Techniques' available at http://www.oecd-ilibrary.org/economics/resource-compendium-of-prtr-release-estimation-techniques-part-2-summary-of-diffuse-source-techniques_oecd_papers-v6-art15-en

III. IDENTIFYING BILATERAL COOPERATIONS

Part III aims to identify potential for bilateral co operation between countries so as to help meet countries' needs for assistance and training in developing PRTRs.

Questions

- 1. Would your country like to receive bilateral assistance from another country in relation to PRTR development?
- A: No. Full list of principles and obligations from PRTR Protocol and EU community law have been already implemented into the Czech legislation. We do not need an extensive assistance from another country.
- 2. If the answer is YES please describe or list the PRTR functional areas and issues in which your country would most like to receive assistance or training.

A:

- 3. Can your country provide bilateral assistance on PRTR development to a country that is in need of assistance?
- A: Yes. We can share our experiences and provide an assistance to another country with PRTR development.
- 4. If the answer is YES please describe or list the PRTR functional areas and issues in which your country could offer assistance or training.
- A: We are able to provide, an assistance joined with these issues: PRTR legislative framework, electronic reporting tools, public access and data dissemination,.
- 5. Is your country already involved in bilateral cooperation with another country or international organisation in relation to PRTR development?

A: Yes

- 6. If the answer is YES please describe whether your country is:
 - i) Currently receiving assistance on PRTR projects (please provide relevant details);
 - ii) Currently providing assistance on PRTR projects (please provide relevant details), or
 - iii) Currently involved in a bilateral exchange in which two or more countries are assisting each other in relation to PRTR developments (please provide relevant details).
- A: ii) Workshop in Belarus (Minsk) November 2011 Get your right to the healthy community.
- 7. Please provide any other information that you feel is relevant to the development of bilateral cooperation with your country on PRTRs.

A:

Please send your response by 9th March 2012 to the secretariat of the Protocol on PRTRs: public.participation@unece.org Many thanks for your contribution!

I. POLLUTANT MONITORING

Part I aims to collect information on current activities in relation to pollutant monitoring in the countries, such as identifying who pays for the monitoring and who carries out the monitoring.

Ouestions

- 1. Who pays for the pollutant monitoring in your country?
- A: In general: enterprises eg. Chemical sites, power plants etc.
- 2. Who carries out the pollutant monitoring in your country?
- A: Certified laboratory companies
- 3. Please provide any other information that you feel is relevant to the development of effective pollutant monitoring in your country (e.g. current status of the activities in your country in relation to pollutant monitoring; how pollutant monitoring is carried out; specific pollutant monitoring methodologies used, etc).

A:

II. DIFFUSE RELEASES

Part II aims to identify methods in relation to measuring or estimating diffuse releases, such as releases from agricultural farms.

Ouestions

- 1. What are the diffuse releases that are measured, calculated or estimated in your country?
- A: As part of the national inventory emissions to air from all anthropogenic sources are estimated and reported to the UNFCCC and the UNECE (CLRTAP).
- 2. Who pays for measuring diffuse releases in your country?
- A: The national air emission inventory is elaborated by DCE Danish Centre of Environment and Energy on behalf of the Ministry of Environment (UNECE) and the Ministry of Climate, Energy and Building (UNFCCC).
- 3. How is data collected for measuring diffuse releases, including releases from agricultural

farms, in your country?

- A: At the national level emissions from diffuse sources to air are based on a top-down approach using national statistics. This is also the case for emission from agriculture at the national level. Production of pigs and poultry is included as point sources in PRTR, therefore there is made a bottom-up emission calculation at farm level based on information on number of livestock, housing types etc.
- 4. Who carries out the measurement or estimation of diffuse releases, including releases from agricultural farms, in your country?
- A: DCE Danish Centre of Environment and Energy is responsible for estimating and reporting emissions.
- 5. What methodologies does your country use to measure or estimate diffuse releases¹⁷, including releases from agricultural farms? Please provide links to relevant data sources.
- A: Denmark uses methodologies consistent with good practice as defined by the IPCC Guidelines and the EMEP/EEA Guidebook. For all major sources, Denmark uses a high tier methodology and to the extent possible country specific emission factors. For further detail, please refer to the Danish National Inventory Report as submitted to the UNFCCC and the Danish Informative Inventory Report as submitted to the UNECE.
- 6. Please provide any other information that you feel is relevant to the measurement or estimation of diffuse releases in your country (e.g. additional needs in relation to measuring diffuse sources).

A:

III. IDENTIFYING BILATERAL COOPERATIONS

Part III aims to identify potential for bilateral co operation between countries so as to help meet countries' needs for assistance and training in developing PRTRs.

Ouestions

1. Would your country like to receive bilateral assistance from another country in relation to PRTR development?

A: No, not considered as necessary

2. If the answer is YES please describe or list the PRTR functional areas and issues in which your country would most like to receive assistance or training.

A:

3. Can your country provide bilateral assistance on PRTR development to a country that is in need of assistance?

A: No – it is currently not in our work plan

4. If the answer is YES please describe or list the PRTR functional areas and issues in which your country could offer assistance or training.

A:

¹⁷ See for guidance, for example: 'Resource Compendium of PRTR Release Estimation Techniques Part 2: Summary of Diffuse Source Techniques' available at http://www.oecd-ilibrary.org/economics/resource-compendium-of-prtr-release-estimation-techniques-part-2-summary-of-diffuse-source-techniques_oecd_papers-v6-art15-en

- 5. Is your country already involved in bilateral cooperation with another country or international organisation in relation to PRTR development?
- A: Yes: The Nordic Group concerning "Releases from the Use of Products" (Finland, Sweden, Norway, Iceland and Denmark).
- 6. If the answer is YES please describe whether your country is:
 - i) Currently receiving assistance on PRTR projects (please provide relevant details);
 - ii) Currently providing assistance on PRTR projects (please provide relevant details), or
 - iii) Currently involved in a bilateral exchange in which two or more countries are assisting each other in relation to PRTR developments (please provide relevant details).

A: 6 iii)

7. Please provide any other information that you feel is relevant to the development of bilateral cooperation with your country on PRTRs.

A:

Please send your response by 9th March 2012 to the secretariat of the Protocol on PRTRs: public.participation@unece.org Many thanks for your contribution!

CONTACT INFORMATION Please provide name and contact data of the person who filled in the questionnaire: First Name: Heidi. Last Name: (Ms/Mr) Koger. Position: PRTR focal point. Name of the Organization: Ministry of the Environment. Address: Narva mnt 7A, 15172 Tallinn, Estonia. Telephone: +372 626 2976. Fax: +372 626 2801. E-mail: heidi.koger@envir.ee.

I. POLLUTANT MONITORING

Part I aims to collect information on current activities in relation to pollutant monitoring in the countries, such as identifying who pays for the monitoring and who carries out the monitoring.

Ouestions

- 1. Who pays for the pollutant monitoring in your country?
- A: National monitoring state; enterprise monitoring enterprises; municipal monitoring local municipalities
- 2. Who carries out the pollutant monitoring in your country?
- A: Estonian Environmental Research Centre state monitoring; rest of monitoring different players
- 3. Please provide any other information that you feel is relevant to the development of effective pollutant monitoring in your country (e.g. current status of the activities in your country in relation to pollutant monitoring; how pollutant monitoring is carried out; specific pollutant monitoring methodologies used, etc).

A:

II. DIFFUSE RELEASES

Part II aims to identify methods in relation to measuring or estimating diffuse releases, such as releases from agricultural farms.

Questions

- 1. What are the diffuse releases that are measured, calculated or estimated in your country?
- A: Road transport and other mobile sources, small combustion in energy (including households), agriculture, manufacturing industry, solvent use, fuel distribution, waste management.
- 2. Who pays for measuring diffuse releases in your country?
- A: State

- 3. How is data collected for measuring diffuse releases, including releases from agricultural farms, in your country?
- A: For estimation of diffuse releases of non-GHG pollutants activity data (the numbers of livestock etc.) from Statistics Estonia and emission factors from EMEP/EEA Air Pollutant Emission Inventory Guidebook were used. Through the IPPC or air pollution permits
- 4. Who carries out the measurement or estimation of diffuse releases, including releases from agricultural farms, in your country?
- *A:* Estonian Environment Information Centre is responsible for the estimation or calculation of diffuse releases of non-GHG pollutants including releases of NH₃, NMVOC, PM₁₀, PM_{2,5}, NO_x emissions from agricultural farms.
- 5. What methodologies does your country use to measure or estimate diffuse releases ¹⁸, including releases from agricultural farms? Please provide links to relevant data sources.
- A: Estonia uses EMEP/EEA methodology for calculation of diffuse releases.
- 6. Please provide any other information that you feel is relevant to the measurement or estimation of diffuse releases in your country (e.g. additional needs in relation to measuring diffuse sources).
- A: It is necessary to measure PM₁₀ and PM_{2,5} emissions for some diffuse sources (for example emissions from the road paving with asphalt, because compared with other sectors EF from EMEP/EEA Air Pollutant Emission Inventory Guidebook gives too high emissions).

III. IDENTIFYING BILATERAL COOPERATIONS

Part III aims to identify potential for bilateral co operation between countries so as to help meet countries' needs for assistance and training in developing PRTRs.

Questions

1. Would your country like to receive bilateral assistance from another country in relation to PRTR development?

A: NO

2. If the answer is YES please describe or list the PRTR functional areas and issues in which your country would most like to receive assistance or training.

A:

3. Can your country provide bilateral assistance on PRTR development to a country that is in need of assistance?

A: NO

4. If the answer is YES please describe or list the PRTR functional areas and issues in which your country could offer assistance or training.

A:

5. Is your country already involved in bilateral cooperation with another country or

See for guidance, for example: 'Resource Compendium of PRTR Release Estimation Techniques Part 2: Summary of Diffuse Source Techniques' available at http://www.oecd-ilibrary.org/economics/resource-compendium-of-prtr-release-estimation-techniques-part-2-summary-of-diffuse-source-techniques-oecd-papers-v6-art15-en

international organisation in relation to PRTR development?

A: NO

- 6. If the answer is YES please describe whether your country is:
 - i) Currently receiving assistance on PRTR projects (please provide relevant details);
 - ii) Currently providing assistance on PRTR projects (please provide relevant details), or
 - iii) Currently involved in a bilateral exchange in which two or more countries are assisting each other in relation to PRTR developments (please provide relevant details).

A:

7. Please provide any other information that you feel is relevant to the development of bilateral cooperation with your country on PRTRs.

A:

FRANCE
CONTACT INFORMATION
Please provide name and contact data of the person who filled in the questionnaire:
First Name:
Last Name: (Ms/Mr): PIEYRE
Position: General Departement of Risks Prevention / Industrial Emissions and water pollution Unit
Name of the Organization: Ministry of Ecology, substainable developpement, transport and Housing.
Address:
Telephone:
Fax:
E-mail:
Website:

I. POLLUTANT MONITORING

Part I aims to collect information on current activities in relation to pollutant monitoring in the countries, such as identifying who pays for the monitoring and who carries out the monitoring.

Ouestions

- 1. Who pays for the pollutant monitoring in your country?
- A: the operator pays the polluant mesuring and the french authorites pay the website used to declare.
- 2. Who carries out the pollutant monitoring in your country?

A: the operator.

3. Please provide any other information that you feel is relevant to the development of effective pollutant monitoring in your country (e.g. current status of the activities in your country in relation to pollutant monitoring; how pollutant monitoring is carried out; specific pollutant monitoring methodologies used, etc).

A:

II. DIFFUSE RELEASES

Part II aims to identify methods in relation to measuring or estimating diffuse releases, such as releases from agricultural farms.

Questions

- 1. What are the diffuse releases that are measured, calculated or estimated in your country?
- A: Its depends about polluants and activities
- 2. Who pays for measuring diffuse releases in your country?

A: the operator

3. How is data collected for measuring diffuse releases, including releases from agricultural farms, in your country?

A: by the way than the other release

4. Who carries out the measurement or estimation of diffuse releases, including releases from agricultural farms, in your country?

A: the operator

5. What methodologies does your country use to measure or estimate diffuse releases¹⁹, including releases from agricultural farms? Please provide links to relevant data sources.

A: Its depends about polluants and activities (mass balance equations, calculations...)

6. Please provide any other information that you feel is relevant to the measurement or estimation of diffuse releases in your country (e.g. additional needs in relation to measuring diffuse sources).

A: /

III. IDENTIFYING BILATERAL COOPERATIONS

Part III aims to identify potential for bilateral co operation between countries so as to help meet countries' needs for assistance and training in developing PRTRs.

Ouestions

1. Would your country like to receive bilateral assistance from another country in relation to PRTR development?

A: no.

2. If the answer is YES please describe or list the PRTR functional areas and issues in which your country would most like to receive assistance or training.

A: /

3. Can your country provide bilateral assistance on PRTR development to a country that is in need of assistance?

A: unfortunately, we cannot.

4. If the answer is YES please describe or list the PRTR functional areas and issues in which your country could offer assistance or training.

A:

5. Is your country already involved in bilateral cooperation with another country or international organisation in relation to PRTR development?

A: /

- 6. If the answer is YES please describe whether your country is:
 - i) Currently receiving assistance on PRTR projects (please provide relevant details);
 - ii) Currently providing assistance on PRTR projects (please provide relevant details), or

¹⁹ See for guidance, for example: 'Resource Compendium of PRTR Release Estimation Techniques Part 2: Summary of Diffuse Source Techniques' available at http://www.oecd-ilibrary.org/economics/resource-compendium-of-prtr-release-estimation-techniques-part-2-summary-of-diffuse-source-techniques_oecd_papers-v6-art15-en

iii) Currently involved in a bilateral exchange in which two or more countries are assisting each other in relation to PRTR developments (please provide relevant details).

A: /

7. Please provide any other information that you feel is relevant to the development of bilateral cooperation with your country on PRTRs.

A:/

GERMANY

CONTACT INFORMATION

Please provide name and contact data of the person who filled in the questionnaire:

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Website: www.prtr.bund.de

I. POLLUTANT MONITORING

Part I aims to collect information on current activities in relation to pollutant monitoring in the countries, such as identifying who pays for the monitoring and who carries out the monitoring.

Ouestions

1. Who pays for the pollutant monitoring in your country?

A: In Germany, facilities which are obliged to report to the PRTR are also obliged to fulfill several national or EU laws and/or obligations concerning emission limit values and emission concentrations. Therefore, they are responsible to monitor their relevant pollutants continuously or discontinuously. They are obliged to account for the information and to report to the relevant authorities. The facilities pay for the monitoring themselves.

2. Who carries out the pollutant monitoring in your country?

A: As described above, facilities are responsible for monitoring due to several reporting obligations. Depending on pollutant and/or obligation, facilities carry out the monitoring themselves or charge monitoring institutes to do so. For some pollutants, only certain accredited institutes are allowed to carry out the monitoring. Monitoring methods and techniques are regulated or specified in the relevant national or international regulations (see I.3).

- 3. Please provide any other information that you feel is relevant to the development of effective pollutant monitoring in your country (e.g. current status of the activities in your country in relation to pollutant monitoring; how pollutant monitoring is carried out; specific pollutant monitoring methodologies used, etc).
- A: Pollutants that do not have to be monitored under German law or regulations etc. are mostly calculated (Code C) or estimated (Code E) in accordance with national or international rules. In cases where estimation techniques are missing and no monitoring obligations exist while at the same time a number of facilities have to report to the PRTR, stepwise research is undertaken according to national priorities. The costs for these research programs are divided upon several partners, e.g. national and federal administrations.

Numerous monitoring obligations for water are laid down in the

• Abwasserverordnung (AbwV) (German Waste Water Regulation

http://www.juris.de/purl/gesetze/ ges/AbwV German language only).

For air, numerous monitoring obligations can be found in

- the "Technische Anleitung zur Reinhaltung der Luft" (Technical Instructions on Air Pollution Control http://www.bmu.de/files/pdfs/allgemein/application/pdf/taluft.pdf
 p. 72 et seqq)
- 17. BImSchV (Federal Regulation on immission control, concerning Waste Combustion Plants http://www.juris.de/purl/gesetze/_ges/BImSchV_17; §9 et seqq)
- 13. BImSchV (Federal Regulation on immission control, concerning large Combustion Plants - http://www.juris.de/purl/gesetze/_ges/BImSchV_13) §13 et seqq)

II. DIFFUSE RELEASES

Part II aims to identify methods in relation to measuring or estimating diffuse releases, such as releases from agricultural farms.

Questions

1. What are the diffuse releases that are measured, calculated or estimated in your country?

A: Diffuse releases or sources are defined as "the many smaller or scattered sources from which pollutants may be released to land, air or water, whose combined impact on those media may be significant and for which it is impractical to collect reports from each individual source". As it is impractical to report each small source, it is also impractical to measure them. To report releases from diffuse sources, data modeling is used frequently. The data models take into account emission factors that are often based on measurements but also include additional information. Due to various reporting obligations for national and international purposes, a number of models have been developed to estimate different diffuse emissions with a large number of institutions being involved. So far, some information on diffuse releases to air and water and on the methods used are already available at www.prtr.bund.de/ >> Diffuse Quellen. As result of an ongoing research project, Germany plans to include more detailed information on diffuse releases to air, water and soil from households, transport and agriculture during the next couple of years.

- 2. Who pays for measuring diffuse releases in your country?
- A: As described above, modeling instead of measuring is applied mostly. The models are often developed in the context of research projects funded by federal or state environment ministries or agencies.
- 3. How is data collected for measuring diffuse releases, including releases from agricultural farms, in your country?
- A: Data collection depends on models, environmental media and pollutants. The data is derived from e.g. statistical data or emission factors. For agriculture, emission factors for several pollutants exist depending e.g. on animal types and numbers, housing system, manure management etc., that also take into account available techniques.
- 4. Who carries out the measurement or estimation of diffuse releases, including releases from agricultural farms, in your country?
- A: In the context of PRTR, data on diffuse emissions from agriculture is provided by the Federal Environment Agency based on models taking into account the available data (animal types and numbers, housing systems, emission factors, available techniques). In the context of other emission reporting obligations, the Federal States provide the data for their State

which is mostly based on the same or similar emission factors.

- 5. What methodologies does your country use to measure or estimate diffuse releases²⁰, including releases from agricultural farms? Please provide links to relevant data sources.
- A: As mentioned previously, data on diffuse releases from agricultural farms will be modelled based on estimations.

General data on releases from diffuse sources to water and air plus information the methodologies used are already available at www.prtr.bund.de >> Diffuse Quellen

- 6. Please provide any other information that you feel is relevant to the measurement or estimation of diffuse releases in your country (e.g. additional needs in relation to measuring diffuse sources).
- A: Continuous quality assessment and re-shaping of models and emissions factors need to be done to identify, understand and eradicate discrepancies between national totals, facility reporting and data on releases from diffuse sources.

III. IDENTIFYING BILATERAL COOPERATIONS

Part III aims to identify potential for bilateral co operation between countries so as to help meet countries' needs for assistance and training in developing PRTRs.

Questions

1. Would your country like to receive bilateral assistance from another country in relation to PRTR development?

A: -

2. If the answer is YES please describe or list the PRTR functional areas and issues in which your country would most like to receive assistance or training.

A: -

3. Can your country provide bilateral assistance on PRTR development to a country that is in need of assistance?

A: yes

- 4. If the answer is YES please describe or list the PRTR functional areas and issues in which your country could offer assistance or training.
- A: For countries of the EECCA-region, we envisage a workshop in 2014 on the common use and development of an open source tool for creating an electronic emission register and for setting up an electronic reporting chain.
- 5. Is your country already involved in bilateral cooperation with another country or international organisation in relation to PRTR development?

A: yes

6. If the answer is YES please describe whether your country is:

x)Currently receiving assistance on PRTR projects (please provide relevant details);

²⁰ See for guidance, for example: 'Resource Compendium of PRTR Release Estimation Techniques Part 2: Summary of Diffuse Source Techniques' available at http://www.oecd-ilibrary.org/economics/resource-compendium-of-prtr-release-estimation-techniques-part-2-summary-of-diffuse-source-techniques_oecd_papers-v6-art15-en

- xi) Currently providing assistance on PRTR projects (please provide relevant details), or
- xii) Currently involved in a bilateral exchange in which two or more countries are assisting each other in relation to PRTR developments (please provide relevant details).

ii)

- TAIEX-Project with Croatia on PRTR,
- Participation in an Austrian led Twinning project on Environmental Reporting in Croatia.
- Advisory Assistance Program of the Federal Environment Ministry for Environmental Protection in Central and Eastern Europe, the Caucasus and Central Asia: Project of the Regional Environmental Center (REC) with Bosnia and Macedonia
- 7. Please provide any other information that you feel is relevant to the development of bilateral cooperation with your country on PRTRs.

A: To fulfil the reporting obligations under the PRTR, Germany has developed a unique cooperation between Federal and State level institutions to create an entirely web-based open source reporting tool that not only serves as an online portal for facilities obliged to report but that also covers the whole process chain and quality management all the way from the facility via different institutions of our Federal States and the Federal Environment Agency to the European Commission. We are currently trying to expand and/ or further develop this whole system to include other, future environmental reporting obligations, such as the new IED. This system is freely available under the Affero General Public License (AGPL V. 3.0 or higher), so that it can be easily adapted and used by other countries.

I. POLLUTANT MONITORING

Part I aims to collect information on current activities in relation to pollutant monitoring in the countries, such as identifying who pays for the monitoring and who carries out the monitoring.

Website: www.ypeka.gr.

Ouestions

- 1. Who pays for the pollutant monitoring in your country?
- A: POLLUTANT MONITORING for Legislation/Environmental Quality Purposes. The Competent Authority (Ministry or regional) or the Local Authority.

 POLLUTANT MONITORING for Compliance Purposes. The Permitted facility or the Inspectorate.
- 2. Who carries out the pollutant monitoring in your country?

A: As in No 1

- 3. Please provide any other information that you feel is relevant to the development of effective pollutant monitoring in your country (e.g. current status of the activities in your country in relation to pollutant monitoring; how pollutant monitoring is carried out; specific pollutant monitoring methodologies used, etc).
- A: The permitted facility monitors its releases and waste according to the Environmental Conditions of the Permit. A facility may monitor the pollution in the context of an Environmental Management System or EMAS

For legislative purposes the responsible authorities monitor the pollution according to their obligations to EU. They report to EU or UN (eg CLRTAP or UNFCCC)

Other authorities monitor their environment quality or pollution such as local authorities and Institutions

II. DIFFUSE RELEASES

Part II aims to identify methods in relation to measuring or estimating diffuse releases, such as releases from agricultural farms.

Ouestions

- 1. What are the diffuse releases that are measured, calculated or estimated in your country?
- A: Mainly Top Down calculations in the context of the Legislation Reporting to EU and UN.

There are projects regarding diffuse source which were produced from Institutions (Organizations and Universities)

- 2. Who pays for measuring diffuse releases in your country?
- A: Mainly is paid from the Authorities and Institutions
- 3. How is data collected for measuring diffuse releases, including releases from agricultural farms, in your country?
- A: Measurements are performed by continuous or spot measurements/modelling
- 4. Who carries out the measurement or estimation of diffuse releases, including releases from agricultural farms, in your country?
- A: Mainly these are carried out by the Authorities and Institutions
- 5. What methodologies does your country use to measure or estimate diffuse releases²¹, including releases from agricultural farms? Please provide links to relevant data sources.
- A: The methodologies used are according to EU legislation and our EU obligations for reporting to EU and UN
- 6. Please provide any other information that you feel is relevant to the measurement or estimation of diffuse releases in your country (e.g. additional needs in relation to measuring diffuse sources).

A:

III. IDENTIFYING BILATERAL COOPERATIONS

Part III aims to identify potential for bilateral co operation between countries so as to help meet countries' needs for assistance and training in developing PRTRs.

Ouestions

1. Would your country like to receive bilateral assistance from another country in relation to PRTR development?

A: No

2. If the answer is YES please describe or list the PRTR functional areas and issues in which your country would most like to receive assistance or training.

A:

3. Can your country provide bilateral assistance on PRTR development to a country that is in need of assistance?

²¹ See for guidance, for example: 'Resource Compendium of PRTR Release Estimation Techniques Part 2: Summary of Diffuse Source Techniques' available at http://www.oecd-ilibrary.org/economics/resource-compendium-of-prtr-release-estimation-techniques-part-2-summary-of-diffuse-source-techniques_oecd_papers-v6-art15-en

A: No

4. If the answer is YES please describe or list the PRTR functional areas and issues in which your country could offer assistance or training.

A:

5. Is your country already involved in bilateral cooperation with another country or international organisation in relation to PRTR development?

A: No

- 6. If the answer is YES please describe whether your country is:
 - i) Currently receiving assistance on PRTR projects (please provide relevant details);
 - ii) Currently providing assistance on PRTR projects (please provide relevant details), or
 - iii) Currently involved in a bilateral exchange in which two or more countries are assisting each other in relation to PRTR developments (please provide relevant details).

A:

7. Please provide any other information that you feel is relevant to the development of bilateral cooperation with your country on PRTRs.

A:

NETHERLANDS

CONTACT INFORMATION

Please provide name and contact data of the person who filled in co-ordinated the questionnaire:

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Last Name: (Ms/Mr) Schaap.

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I. POLLUTANT MONITORING

Part I aims to collect information on current activities in relation to pollutant monitoring in the countries, such as identifying who pays for the monitoring and who carries out the monitoring.

Ouestions

- 1. Who pays for the pollutant monitoring in your country?
- A: The National government provides for infrastructure for reporting en provides funds for the local government which acts as the competent authority in the context of PRTR.

The reporting facilities pay for their own efforts regarding measuring, registration and reporting.

- 2. Who carries out the pollutant monitoring in your country?
- A: The relevant facilities report, the local government validates the reports, a central national organisation facilitates the process en collects and processes the reports. This is the National Institute for Public Health and the Environment (RIVM) co-ordinates the annual compilation of the Emission Register
- 3. Please provide any other information that you feel is relevant to the development of effective pollutant monitoring in your country (e.g. current status of the activities in your country in relation to pollutant monitoring; how pollutant monitoring is carried out; specific pollutant monitoring methodologies used, etc).

A: none

II. DIFFUSE RELEASES

Part II aims to identify methods in relation to measuring or estimating diffuse releases, such as releases from agricultural farms.

Ouestions

- 1. What are the diffuse releases that are measured, calculated or estimated in your country?
- A: In general the Netherlands calculate emission based on activity data * emission factor. This is done for 350 pollutants coming from about 650 emission sources, many of these are

diffuse sources. In general emission factors are derived from international guidance documents (EMEP/EEA air pollutant emission inventory guidebook, UNFCCC IPCC Guideline 1996 en 2006, EPA AP-42 ,reference documents on best available techniques (BREF). The activity data are in general based on information from the national bureau of statistics

- 2. Who pays for measuring diffuse releases in your country?
- A: National government
- 3. How is data collected for measuring diffuse releases, including releases from agricultural farms, in your country?
- A: From a wide variety of national statistics, the Netherlands use about 200 different national statistics. Where data is not available additional research is done
- 4. Who carries out the measurement or estimation of diffuse releases, including releases from agricultural farms, in your country?
- A: The National Institute for Public Health and the Environment (RIVM) co-ordinates the annual compilation of the Emission Register on behalf of the Ministry of Infrastructure and the Environment. The Emission Register was established in co-operation with a number of institutes, including Statistics Netherlands (CBS), the Netherlands Organisation for Applied Scientific Research (TNO) and Deltares (Netherlands Institute for applied research in the field of water, subsurface and infrastructure). In total about 70 experts are involved
- 5. What methodologies does your country use to measure or estimate diffuse releases²², including releases from agricultural farms? Please provide links to relevant data sources.
- A: All national methodologies are published on our National PRTR website, also in English see www.prtr.nl or more specific the menu-item 'Documentation'
- 6. Please provide any other information that you feel is relevant to the measurement or estimation of diffuse releases in your country (e.g. additional needs in relation to measuring diffuse sources).

A:none

III. IDENTIFYING BILATERAL COOPERATIONS

Part III aims to identify potential for bilateral co operation between countries so as to help meet countries' needs for assistance and training in developing PRTRs.

Questions

1. Would your country like to receive bilateral assistance from another country in relation to PRTR development?

A:No

2. If the answer is YES please describe or list the PRTR functional areas and issues in which your country would most like to receive assistance or training.

A: --

²² See for guidance, for example: 'Resource Compendium of PRTR Release Estimation Techniques Part 2: Summary of Diffuse Source Techniques' available at http://www.oecd-ilibrary.org/economics/resource-compendium-of-prtr-release-estimation-techniques-part-2-summary-of-diffuse-source-techniques_oecd_papers-v6-art15-en

- 3. Can your country provide bilateral assistance on PRTR development to a country that is in need of assistance?
- A: Yes, provided that financing for the assistance is available and that the responsible ministry gives it's permission.
- 4. If the answer is YES please describe or list the PRTR functional areas and issues in which your country could offer assistance or training.
- A: Advice and technical assistance in setting up and organising a national system for emission registration / PRTR
- 5. Is your country already involved in bilateral cooperation with another country or international organisation in relation to PRTR development?
- A: Not at the moment, however the following assistance has been provided in the past to other countries:
- Technical assistance to Armenia: a 4-day study trip for representatives of the Armenian Ministry of Environment regarding the implementation of PRTR in the Netherlands
- Technical assistance provided to Croatia en Bulgaria:
 - o Intensive training on validation of PRTR-reports for competent authority
 - o Leading role in drafting the Croatian PRTR Guidance Document
- Technical assistance provided to Turkey
 - o Implementation of an emission registration to improve the air quality
 - o Emission factors for coal based residential heating and combustion
- 6. If the answer is YES please describe whether your country is:
 - xiii) Currently receiving assistance on PRTR projects (please provide relevant details);
 - xiv) Currently providing assistance on PRTR projects (please provide relevant details), or
 - xv) Currently involved in a bilateral exchange in which two or more countries are assisting each other in relation to PRTR developments (please provide relevant details).

Α.

7. Please provide any other information that you feel is relevant to the development of bilateral cooperation with your country on PRTRs.

A:

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I. POLLUTANT MONITORING

Part I aims to collect information on current activities in relation to pollutant monitoring in the countries, such as identifying who pays for the monitoring and who carries out the monitoring.

Questions

1. Who pays for the pollutant monitoring in your country?

A: In part the Ministry and relevant facilities

2. Who carries out the pollutant monitoring in your country?

A: In part the Ministry, competent authority(inspectorates) and relevant facilities

- 3. Please provide any other information that you feel is relevant to the development of effective pollutant monitoring in your country (e.g. current status of the activities in your country in relation to pollutant monitoring; how pollutant monitoring is carried out; specific pollutant monitoring methodologies used, etc).
- A: Facilities and the competent authority are obliged to the pollutant monitoring by European and domestic laws. Pollutant monitoring is carried out by accreditation laboratories from part of authorities, facilities and independent laboratories.

II. DIFFUSE RELEASES

Part II aims to identify methods in relation to measuring or estimating diffuse releases, such as releases from agricultural farms.

Ouestions

- 1. What are the diffuse releases that are measured, calculated or estimated in your country?
- A: VOCs in part measured and calculated based on mass balance. NH₃, CH₄ and N₂O from agricultural sector is estimated with emission factors(based on EMEP/CORINAIR Emission Inventory Guidebook 2002)
- 2. Who pays for measuring diffuse releases in your country?

A: In part the Ministry and relevant facilities

- 3. How is data collected for measuring diffuse releases, including releases from agricultural farms, in your country?
- A: Facilities have to report to the competent authority and data are input into database in part by competent authority.
- 4. Who carries out the measurement or estimation of diffuse releases, including releases from agricultural farms, in your country?

A: In part the Ministry and relevant facilities

- 5. What methodologies does your country use to measure or estimate diffuse releases²³, including releases from agricultural farms? Please provide links to relevant data sources.
- A: Methodologies based on Emission Inventory Guidebook 2002 emission factors calculation.
- 6. Please provide any other information that you feel is relevant to the measurement or estimation of diffuse releases in your country (e.g. additional needs in relation to measuring diffuse sources).
- A: The most of the VOC methodology based on accredited measures and standards. Other VOC diffuse pollutant releases are estimation by mass balance calculation methodology.

III. IDENTIFYING BILATERAL COOPERATIONS

Part III aims to identify potential for bilateral co operation between countries so as to help meet countries' needs for assistance and training in developing PRTRs.

Questions

1. Would your country like to receive bilateral assistance from another country in relation to PRTR development?

A: At the moment, we are not planning to take part a kind of bilateral cooperation.

2. If the answer is YES please describe or list the PRTR functional areas and issues in which your country would most like to receive assistance or training.

A: -

3. Can your country provide bilateral assistance on PRTR development to a country that is in need of assistance?

A: -

4. If the answer is YES please describe or list the PRTR functional areas and issues in which your country could offer assistance or training.

A: -

5. Is your country already involved in bilateral cooperation with another country or international organisation in relation to PRTR development? no

²³ See for guidance, for example: 'Resource Compendium of PRTR Release Estimation Techniques Part 2: Summary of Diffuse Source Techniques' available at http://www.oecd-ilibrary.org/economics/resource-compendium-of-prtr-release-estimation-techniques-part-2-summary-of-diffuse-source-techniques_oecd_papers-v6-art15-en

A:

- 6. If the answer is YES please describe whether your country is:
 - i) Currently receiving assistance on PRTR projects (please provide relevant details);
 - ii) Currently providing assistance on PRTR projects (please provide relevant details), or
 - iii) Currently involved in a bilateral exchange in which two or more countries are assisting each other in relation to PRTR developments (please provide relevant details).

A:

7. Please provide any other information that you feel is relevant to the development of bilateral cooperation with your country on PRTRs.

A:

IRELAND
CONTACT INFORMATION
CONTACT INFORMATION
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I. POLLUTANT MONITORING

Part I aims to collect information on current activities in relation to pollutant monitoring in the countries, such as identifying who pays for the monitoring and who carries out the monitoring.

Questions

1. Who pays for the pollutant monitoring in your country?

A: Licensed industrial facilities undertake monitoring at their facility as outlined in their Integrated Pollution Prevention Control (IPPC) License. The facility pays for this monitoring cost.

Monitoring of the natural environment e.g. river, lake water quality is paid for by government agencies/Local Authorities.

2. Who carries out the pollutant monitoring in your country?

- A: The Environmental Protection Agency (EPA) or consultants employed by the EPA; consultants employed by the industrial facility itself to carry out the monitoring required in their licence.
- 3. Please provide any other information that you feel is relevant to the development of effective pollutant monitoring in your country (e.g. current status of the activities in your country in relation to pollutant monitoring; how pollutant monitoring is carried out; specific pollutant monitoring methodologies used, etc).

A:

II. DIFFUSE RELEASES

Part II aims to identify methods in relation to measuring or estimating diffuse releases, such as releases from agricultural farms.

Ouestions

1. What are the diffuse releases that are measured, calculated or estimated in your country?

A: Here is an example of how some diffuse emissions are determined.

- Methane emissions to air: Landfills calculate using models e.g. GasSim, LandGem. Intensive agriculture calculate using Calculation tool developed by the EPA Ireland
- A selection of diffuse releases include methane which is calculated by landfills using models or it is calculated by intensive agriculture sector (ammonia and methane) by using a calculation tool developed by EPA Ireland. In the latter case, only diffuse emissions from livestock housing units are estimated using e-calculation tools.

2. Who pays for measuring diffuse releases in your country?

A: Generally it is paid for by government funds, through EPA STRIVE research programmes and other government Agency research programmes e.g. Teagasc (agriculture government body) etc.

3. How is data collected for measuring diffuse releases, including releases from agricultural farms, in your country?

A: The EPA only collect data from EPA licensed facilities such as large pig and or poultry units. Information on the numbers of livestock is collected through PRTR annual returns. Diffuse emissions from sectors including agriculture, waste, UWWTP etc are estimated using e-calculation tools developed by the EPA which incorporate emission factors based on IPCC methodologies. Private companies e.g. GasSim is developed by Golders Ltd are used by licensed facilities to estimate emissions of methane and other pollutants from landfills. Other government departments/agencies such as Teagasc collect information from farms under their research programmes.

4. Who carries out the measurement or estimation of diffuse releases, including releases from agricultural farms, in your country?

A: Large pig or poultry farms that are IPPC licensed estimate their diffuse emissions from their housing units, using animal numbers & e0calculation tools (see above). Departments within the agency would estimate diffuse emissions from sectors such as Transport, Domestic etc using computer modelling.

5. What methodologies does your country use to measure or estimate diffuse releases²⁴, including releases from agricultural farms? Please provide links to relevant data sources.

A: See above

6. Please provide any other information that you feel is relevant to the measurement or estimation of diffuse releases in your country (e.g. additional needs in relation to measuring diffuse sources).

A:

III. IDENTIFYING BILATERAL COOPERATIONS

Part III aims to identify potential for bilateral co operation between countries so as to help meet countries' needs for assistance and training in developing PRTRs.

²⁴ See for guidance, for example: 'Resource Compendium of PRTR Release Estimation Techniques Part 2: Summary of Diffuse Source Techniques' available at http://www.oecd-ilibrary.org/economics/resource-compendium-of-prtr-release-estimation-techniques-part-2-summary-of-diffuse-source-techniques_oecd_papers-v6-art15-en

Ouestions

1. Would your country like to receive bilateral assistance from another country in relation to PRTR development?

A: Yes

- 2. If the answer is YES please describe or list the PRTR functional areas and issues in which your country would most like to receive assistance or training.
 - A: We are continuously trying to improve our system to ensure the best quality data is collected as efficiently as possible. It would be of interest to see how other countries run their PRTR systems and if we could learn from them. It may help avoid pitfalls that other countries have encountered or determine the most efficient way of doing things. Areas of interest would include:
 - Electronic forms used to capture PRTR Data
 - The database that stores the PRTR Data
 - Is the PRTR system part of larger data collection systems
 - Validation Processes
 - Guidance Documents
 - How PRTR data sets are manipulated/interrogated
 - How PRTR data is used
 - Timelines, numbers of PRTRs received, % validation, man power
- 3. Can your country provide bilateral assistance on PRTR development to a country that is in need of assistance?

A: Yes

- 4. If the answer is YES please describe or list the PRTR functional areas and issues in which your country could offer assistance or training.
- A: Since 2007 the PRTR system has developed into a robust, efficient, high quality data capture system. A lot of time has been spent communicating with operators to ensure they know what data must be submitted. We have learned from common errors operators were making and installed rules within the PRTR electronic workbook to prevent them. The PRTR data collected by the Agency undergoes rigorous validation that is undertaken by a dedicated team. We would be able to provide assistance in the following fields:
 - Preparing to implement a PRTR system i.e. what data needs to be collected, timelines, types of electronic forms,
 - Preparation of Guidance documents and Training sessions for Operators.
 - Highlight common errors so as these can be avoided
 - What the PRTR data storage system needs to be capable of i.e. it's ability to present the data in a format that you can use it validation reports, top emitters
 - Development of National Websites for PRTR systems
- 5. Is your country already involved in bilateral cooperation with another country or international organisation in relation to PRTR development?

A: No

- 6. If the answer is YES please describe whether your country is:
 - xvi) Currently receiving assistance on PRTR projects (please provide relevant details);
 - xvii) Currently providing assistance on PRTR projects (please provide relevant details), or

xviii) Currently involved in a bilateral exchange in which two or more countries are assisting each other in relation to PRTR developments (please provide relevant details).
A:
7. Please provide any other information that you feel is relevant to the development of bilateral cooperation with your country on PRTRs.
A:

I. POLLUTANT MONITORING

Part I aims to collect information on current activities in relation to pollutant monitoring in the countries, such as identifying who pays for the monitoring and who carries out the monitoring.

Ouestions

- 1. Who pays for the pollutant monitoring in your country?
- A: Poin sources monitoring is payed by the facility.
- 2. Who carries out the pollutant monitoring in your country?
- A: Poin sources monitoring is done by the facility through a certified laboratory
- 3. Please provide any other information that you feel is relevant to the development of effective pollutant monitoring in your country (e.g. current status of the activities in your country in relation to pollutant monitoring; how pollutant monitoring is carried out; specific pollutant monitoring methodologies used, etc).
- A: We are in a process of demanding certifications of all sampling activities in adition to the laboratories analysys.

II. DIFFUSE RELEASES

Part II aims to identify methods in relation to measuring or estimating diffuse releases, such as releases from agricultural farms.

Ouestions

- 1. What are the diffuse releases that are measured, calculated or estimated in your country?
- A: Transportation releases are measured and calculated (NOx, SOx, CO, PM, O₃), NMVOCs diffused releases are measured in IPPC facilities.
- 2. Who pays for measuring diffuse releases in your country?
- A: The Ministry of Environment Protection pays for some of the measuring. Others are paid by the Israel Electric Company and Municipalities. IPPC facilities are paying for their measurments.

- 3. How is data collected for measuring diffuse releases, including releases from agricultural farms, in your country?
- A: There are about 20 air monitoring stations for transportation emissions. No measuring of agricultural emissions. IPPC diffused releases are measured by LDAR surveys.
- 4. Who carries out the measurement or estimation of diffuse releases, including releases from agricultural farms, in your country?
- A: All the bodies mentioned above carry their measurements by professional samplers and laboratories.
- 5. What methodologies does your country use to measure or estimate diffuse releases²⁵, including releases from agricultural farms? Please provide links to relevant data sources.

A: US AP-42.

http://213.8.39.11/airres/PollutersEmitionSources.aspx

http://english.sviva.gov.il/bin/en.jsp?enPage=e_homePage

6. Please provide any other information that you feel is relevant to the measurement or estimation of diffuse releases in your country (e.g. additional needs in relation to measuring diffuse sources).

A:

III. IDENTIFYING BILATERAL COOPERATIONS

Part III aims to identify potential for bilateral co operation between countries so as to help meet countries' needs for assistance and training in developing PRTRs.

Questions

1. Would your country like to receive bilateral assistance from another country in relation to PRTR development?

A: Very much

2. If the answer is YES please describe or list the PRTR functional areas and issues in which your country would most like to receive assistance or training.

A: Releas Estimation Techniques. Computerizing the system. QA methodology.

- 3. Can your country provide bilateral assistance on PRTR development to a country that is in need of assistance?
- A: We don't have yet an operating system, but we can discuss our beginners experience with other begginers.
- 4. If the answer is YES please describe or list the PRTR functional areas and issues in which your country could offer assistance or training.

A: discussing how to create a pollutants list, sectors list etc

²⁵ See for guidance, for example: 'Resource Compendium of PRTR Release Estimation Techniques Part 2: Summary of Diffuse Source Techniques' available at http://www.oecd-ilibrary.org/economics/resource-compendium-of-prtr-release-estimation-techniques-part-2-summary-of-diffuse-source-techniques-oecd-papers-v6-art15-en

- 5. Is your country already involved in bilateral cooperation with another country or international organisation in relation to PRTR development?
- A: We applied to Japan and Germany to include PRTR in the ongoing bylatral relations.
- 6. If the answer is YES please describe whether your country is:
 - i) Currently receiving assistance on PRTR projects (please provide relevant details);
 - ii) Currently providing assistance on PRTR projects (please provide relevant details), or
 - iii) Currently involved in a bilateral exchange in which two or more countries are assisting each other in relation to PRTR developments (please provide relevant details).
- A: Not yet receiving assistance on PRTR projects
- 7. Please provide any other information that you feel is relevant to the development of bilateral cooperation with your country on PRTRs.

Α.

I. POLLUTANT MONITORING

Part I aims to collect information on current activities in relation to pollutant monitoring in the countries, such as identifying who pays for the monitoring and who carries out the monitoring.

Ouestions

- 1. Who pays for the pollutant monitoring in your country?
- A: In general, facility operators pay for the pollutant monitoring: they are responsible for the establishment and maintenance of a self-pollutant monitoring system and they pay for the on site inspections in compliance with the national permitting system
- 2. Who carries out the pollutant monitoring in your country?
- A: Facility operators are responsible for the pollutant self monitoring system; by law on site inspection are carried out by ISPRA (Italian National Institute for environment protection and research) and by ARPA (regional agencies for environment protection)
- 3. Please provide any other information that you feel is relevant to the development of effective pollutant monitoring in your country (e.g. current status of the activities in your country in relation to pollutant monitoring; how pollutant monitoring is carried out; specific pollutant monitoring methodologies used, etc).
- A: Operators in the scope of the IPPC Directive are requested to report to competent authorities the results of the monitoring plan of pollutant releases. This plan is set by the competent authority which granted the IPPC permit to the operator. Competent authorities for the quality assessment of the national PRTR data have generally access to the data reported by operators in the scope of the IPPC permitting system. The great majority of facilities reporting to the national PRTR are also facilities in the scope of the IPPC permitting system.

II. DIFFUSE RELEASES

Part II aims to identify methods in relation to measuring or estimating diffuse releases, such as releases from agricultural farms.

Questions

- 1. What are the diffuse releases that are measured, calculated or estimated in your country?
- A: Releases to air from diffuse sources (i.e. smaller and scattered sources of releases) such as Energy used in (commercial, institutional, residential) building heating system; Transport and Agriculture are generally estimated by ISPRA in the frame of the national inventory of emission to air (UN-FCCC, UN-ECE- CLRTAP). Italy has been drafting new legislation to establish a national inventory of emission to water to comply with EU legislation concerning water.
- 2. Who pays for measuring diffuse releases in your country?

A:

3. How is data collected for measuring diffuse releases, including releases from agricultural farms, in your country?

A:

- 4. Who carries out the measurement or estimation of diffuse releases, including releases from agricultural farms, in your country?
- A: ISPRA estimates every year the releases to air from diffuse sources in order to make the annual update of the national inventory of emission to air.
- 5. What methodologies does your country use to measure or estimate diffuse releases²⁶, including releases from agricultural farms? Please provide links to relevant data sources.

A: In order to estimate emissions to air from Transport (road transport, aviation and navigation different methodologies are used; for road transport the latest release of the software COPERT is used (the software COPERT is developed by the Joint Research Center of the European Commission together with the European Environment Agency); for emission from aviation a national estimation methodology was developed based on fuel consumptions and aircraft movements, aircraft fleet (a national study was carried out to set country specific characteristics of domestic and international flights); for emissions to air from navigation a national estimation methodology was developed based on fuel consumptions and ship movements and the marine fleet (a national study focussed on the Italian marine fleet and the origin-destination matrix to develop country specific values). As for emissions to air from the use of energy in the heating systems of building the national estimation method is based on the energy consumption data in the national energy balance; as for emissions to air from Agriculture the national estimation method is based on the official data provided by different surveys managed by the National Institute of Statistics. Further details concerning sector specific estimation methodologies can be found in the Italian reports "National Inventory Report" and "Informative Inventory Report" available at the following URL:

http://www.isprambiente.gov.it/site/en-

GB/Publications/Reports/Documents/rapporto 139 2011.html

http://www.isprambiente.gov.it/site/en-

GB/Publications/Reports/Documents/rapporto 138 2011.html

6. Please provide any other information that you feel is relevant to the measurement or estimation of diffuse releases in your country (e.g. additional needs in relation to measuring diffuse sources).

²⁶ See for guidance, for example: 'Resource Compendium of PRTR Release Estimation Techniques Part 2: Summary of Diffuse Source Techniques' available at http://www.oecd-ilibrary.org/economics/resource-compendium-of-prtr-release-estimation-techniques-part-2-summary-of-diffuse-source-techniques_oecd_papers-v6-art15-en

A:		

III. IDENTIFYING BILATERAL COOPERATIONS

Part III aims to identify potential for bilateral co operation between countries so as to help meet countries' needs for assistance and training in developing PRTRs.

Ouestions

1. Would your country like to receive bilateral assistance from another country in relation to PRTR development?

A:

2. If the answer is YES please describe or list the PRTR functional areas and issues in which your country would most like to receive assistance or training.

A:

3. Can your country provide bilateral assistance on PRTR development to a country that is in need of assistance?

A:Yes

- 4. If the answer is YES please describe or list the PRTR functional areas and issues in which your country could offer assistance or training.
- A: Italy could provide assistance in establishing of a national PRTR legislation in order to design the national register.
- 5. Is your country already involved in bilateral cooperation with another country or international organisation in relation to PRTR development?
- A: Montenegro (ongoing Twinning including assistance to establish a national PRTR in compliance with Regulation EC n.166/2006)
- 6. If the answer is YES please describe whether your country is:
 - i) Currently receiving assistance on PRTR projects (please provide relevant details);
 - ii) Currently providing assistance on PRTR projects (please provide relevant details), or
 - iii) Currently involved in a bilateral exchange in which two or more countries are assisting each other in relation to PRTR developments (please provide relevant details).
- A: ii) Italy i s currently providing assistance in order that Montenegro could establish an operating national agency for environment protection. Under this frame, in April 2012 a specific activity on PRTR is going to be held which will include the design of PRTR national legislation and the draft of a guidance to implement a national PRTR
- 7. Please provide any other information that you feel is relevant to the development of bilateral cooperation with your country on PRTRs.

A:

KAZAKHSTAN

CONTACT INFORMATION

Please provide name and contact data of the person who filled in the questionnaire:

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Position: expert First Name: Olga

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Position: expert

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I. POLLUTANT MONITORING

Part I aims to collect information on current activities in relation to pollutant monitoring in the countries, such as identifying who pays for the monitoring and who carries out the monitoring.

Questions

1. Who pays for the pollutant monitoring in your country?

A: At expense of state budget – Ministry of Environmental Protection; Ministry of Health of RK; The Committee of national sanitary-and-epidemiological control of the Ministry of Public Health of RK; Land Management Agency of Republic of Kazakhstan; Ministry of Industry and New Technologies of the RK, The Committee of Geologies and Resource Exploitation.

B: At the expense of enterprises - natural resources users

2. Who carries out the pollutant monitoring in your country?

A: state monitoring is carried out by - Ministry of Environmental Protection; Ministry of Health of RK; The Committee of national sanitary-and-epidemiological control of the Ministry of Public Health of RK; Land Management Agency of Republic of Kazakhstan; Ministry of Industry and New Technologies of the RK, The Committee of Geologies and Resource Exploitation.

B: industrial monitoring is carried out by enterprises - natural resources users

- 3. Please provide any other information that you feel is relevant to the development of effective pollutant monitoring in your country (e.g. current status of the activities in your country in relation to pollutant monitoring; how pollutant monitoring is carried out; specific pollutant monitoring methodologies used, etc).
 - A: Ministry of Environmental Protection is carried out monitoring of :
 - a) environmental conditions:
 - atmospheric precipitation, temperature;
 - atmospheric air pollution;

- surfacel water pollution;
- flush;
- background radiation;
- soil pollution;
- B: Ministry of Health care of RK; The Committee of national sanitary-and-epidemiological control of the Ministry of Health care of RK are carried out monitoring of:

<u>environmental conditions:</u> atmospheric air; drinking water quality; superficial water quality in pleces of water use; soil; conent of pesticides in soil, waters, raw food and foodstuffs; capacity of effective doze of gamma radiation on open side;

C: Land Management Agency of Republic of Kazakhstan:

Monitoring of land for the qualitative and quantitative status of the land fund, burial sites of toxic industrial waste and radioactive materials;

D: Ministry of Industry and New Technologies of the RK, The Committee of Geologies and Resource Exploitation:

Monitoring of groundwater (chemical composition of groundwater, including salinity, characterizing both the natural conditions and destroyed under the influence of technological factors); sewage od wastewaters and other water into the subsoil, disposal of hazardous substances into the interior.

II. DIFFUSE RELEASES

Part II aims to identify methods in relation to measuring or estimating diffuse releases, such as releases from agricultural farms.

Questions

- 1. What are the diffuse releases that are measured, calculated or estimated in your country?
- A: at conduction the environmental impact assessment of users of natural resources take into account all sources of emissions, including diffuse. As a rule, this is official transport, portable units.
- B: summary estimates of the vehicles registered in the territory of the RK are not made.
- 2. Who pays for measuring diffuse releases in your country?
- A: Natural resources users carrying out economic activities, which have an impact on the environment and authorized to issue. Payment rates are defined in the Tax Code of RK.
- 3. How is data collected for measuring diffuse releases, including releases from agricultural farms, in your country?
- A: Quarterly the reports on the production monitoring of economic activity are provided in the MEP of the RK. Production control is conducted on the substances identified in the Program of production control, usually a substance having the largest amount of emissions. Emissions from diffuse sources of company is not controlled by instrumental, volume of emissions from them are produced by the method of calculation of the duration of their work.
- B: agricultural farms are not reporting on emissions.
- 4. Who carries out the measurement or estimation of diffuse releases, including releases from agricultural farms, in your country?
- A: Natural resources users
- B: emissions from agricultural farms are not calculated an are not controlled.

- 5. What methodologies does your country use to measure or estimate diffuse releases²⁷, including releases from agricultural farms? Please provide links to relevant data sources.
- A: Methods of calculating emissions from road transport enterprises (section 4.7. Repair RTI) Application # 3 to the Order of the Minister of Environment Protection of the Republic of Kazakhstan dated 18.04.2008 № 100-p

Methods for estimating emissions of air pollutants for welding (for specific values emissions). RND 211.2.02.03-2004. Astana, 2005, etc.

- 6. Please provide any other information that you feel is relevant to the measurement or estimation of diffuse releases in your country (e.g. additional needs in relation to measuring diffuse sources).
- A: In the permission the total amount of pollution is specifies. Plant's emissions are added to substances from point and diffuse sources. Monitoring is carried out for those sources and substances that contribute most to the contamination and for which payment is provided.

III. IDENTIFYING BILATERAL COOPERATIONS

Part III aims to identify potential for bilateral co operation between countries so as to help meet countries' needs for assistance and training in developing PRTRs.

Ouestions

1. Would your country like to receive bilateral assistance from another country in relation to PRTR development?

A: Yes, from countries successfully implemented PRTR

2. If the answer is YES please describe or list the PRTR functional areas and issues in which your country would most like to receive assistance or training.

A: At the Sub-Regional Seminar on the Protocol on pollutant release and transfer of the EECCA held on November 3-4, 2011 in Minsk, representatives of Kazakhstan O. Melnik, and L.Astanina have marked great interest among the participants on demonstration the operation of the PRTR system in countries such Norway, Poland and the Czech Republic.

In Kazakhstan it is necessary to hold a series of workshops with the natural resource users, NGOs and government agencies. In this regard, please consider participating in seminars by international experts from the countries have successfully implemented PRTR. As well as their assessment of developed PRTR in Kazakhstan and measures of ratification of the PRTR Protocol.

We would be grateful if you will assist in providing expert advice on the creation and promotion of PRTR in Kazakhstan.

3. Can your country provide bilateral assistance on PRTR development to a country that is in need of assistance?

A: At the current stage - no.

²⁷ See for guidance, for example: 'Resource Compendium of PRTR Release Estimation Techniques Part 2: Summary of Diffuse Source Techniques' available at http://www.oecd-ilibrary.org/economics/resource-compendium-of-prtr-release-estimation-techniques-part-2-summary-of-diffuse-source-techniques_oecd_papers-v6-art15-en

4. If the answer is YES please describe or list the PRTR functional areas and issues in which your country could offer assistance or training.

A:

5. Is your country already involved in bilateral cooperation with another country or international organisation in relation to PRTR development?

A: Yes

- 6. If the answer is YES please describe whether your country is:
 - i) Currently receiving assistance on PRTR projects (please provide relevant details);
 - ii) Currently providing assistance on PRTR projects (please provide relevant details), or
 - iii) Currently involved in a bilateral exchange in which two or more countries are assisting each other in relation to PRTR developments (please provide relevant details).
- A: Since 2002 Kazakhstan held about seven international projects.

B: In 2011 together with the OSCE short-term project has been implemented to promote the PRTR Protocol in the Republic of Kazakhstan. The result of the project is a pilot version of the web- site of the Kazakhstan PRTR placed on the local server and the content of the data from the enterprises of the three regions of the country.

In addition, work is underway to amend the existing legislation that would allow a nature users without significantly increasing costs to provide annually to the Ministry of more complete data on emissions than provided by the PRTR Protocol.

- 7. Please provide any other information that you feel is relevant to the development of bilateral cooperation with your country on PRTRs.
- A: Kazakhstan would be useful to know the opinion of international experts who participated in the thematic and technical development of the European PRTR website, get advice and technical support for the upcoming integration into the European PRTR Kazakhstan PRTR system.

Please send your response by 9th March 2012 to the secretariat of the Protocol on PRTRs: public.participation@unece.org Many thanks for your contribution!

I. POLLUTANT MONITORING

Part I aims to collect information on current activities in relation to pollutant monitoring in the countries, such as identifying who pays for the monitoring and who carries out the monitoring.

Ouestions

- 1. Who pays for the pollutant monitoring in your country?
- A: Pollutant monitoring in Latvia could be divided into two parts. The one part is monitoring performed **by state** in order to assess overall state of environment in the country and to follow up changes in the state of environment. In this case country pays for monitoring.

The second part is monitoring performed **by operators**, which are performing polluting activities. Monitoring aims to assess if the polluting activity is performed according to obligations set in the permit and to assess the impact to environment. In this case monitoring expenses are covered by operator.

According to Law on pollution 15.03.2011. section 45. it is the duty of an operator to control the quantity of emissions on a regular basis and to perform monitoring.

- 2. Who carries out the pollutant monitoring in your country?
- A: Pollutant monitoring is divided in two parts monitoring carried out by state authorities and monitoring carried out by operators.
- 3. Please provide any other information that you feel is relevant to the development of effective pollutant monitoring in your country (e.g. current status of the activities in your country in relation to pollutant monitoring; how pollutant monitoring is carried out; specific pollutant monitoring methodologies used, etc).
- A: Operators of installations carry out pollutant monitoring according to provisions set in permits and according to regulatory requirements. Permit is issued by State environmental service and in permit is set requirements for monitoring (which emissions are monitored, how often and what are monitoring methods).

II. DIFFUSE RELEASES

Part II aims to identify methods in relation to measuring or estimating diffuse releases, such as releases from agricultural farms.

Ouestions

- 1. What are the diffuse releases that are measured, calculated or estimated in your country?
- A: Diffuse releases that are measured, calculated or estimated are mainly releases of smells, dust particles etc.
- 2. Who pays for measuring diffuse releases in your country?
- A: In the case of diffuse emsissions released by installations, operator pays for the measurements of diffuse releases.
- 3. How is data collected for measuring diffuse releases, including releases from agricultural farms, in your country?

A:

- 4. Who carries out the measurement or estimation of diffuse releases, including releases from agricultural farms, in your country?
- A: Measurements or estimations of diffuse releases are carried out by operators or laboratories.
- 5. What methodologies does your country use to measure or estimate diffuse releases²⁸, including releases from agricultural farms? Please provide links to relevant data sources.

A:

- 6. Please provide any other information that you feel is relevant to the measurement or estimation of diffuse releases in your country (e.g. additional needs in relation to measuring diffuse sources).
- A: Diffuse releases are regulated also in permits; permits set also requirements for preventive measures in order to reduce diffuse emissions.

III. IDENTIFYING BILATERAL COOPERATIONS

Part III aims to identify potential for bilateral co operation between countries so as to help meet countries' needs for assistance and training in developing PRTRs.

Ouestions

1. Would your country like to receive bilateral assistance from another country in relation to PRTR development?

A:

2. If the answer is YES please describe or list the PRTR functional areas and issues in which your country would most like to receive assistance or training.

²⁸ See for guidance, for example: 'Resource Compendium of PRTR Release Estimation Techniques Part 2: Summary of Diffuse Source Techniques' available at http://www.oecd-ilibrary.org/economics/resource-compendium-of-prtr-release-estimation-techniques-part-2-summary-of-diffuse-source-techniques_oecd_papers-v6-art15-en

A:

3. Can your country provide bilateral assistance on PRTR development to a country that is in need of assistance?

A: Latvia could provide assistance on PRTR development.

4. If the answer is YES please describe or list the PRTR functional areas and issues in which your country could offer assistance or training.

A: Elaboration, maintenance and updating of PRTR register. Reporting to E-PRTR register.

Work with emission data regarding emissions to water, air and regarding waste, maintenance of data bases.

5. Is your country already involved in bilateral cooperation with another country or international organisation in relation to PRTR development?

A: No, currently not.

- 6. If the answer is YES please describe whether your country is:
 - i) Currently receiving assistance on PRTR projects (please provide relevant details);
 - ii) Currently providing assistance on PRTR projects (please provide relevant details), or
 - iii) Currently involved in a bilateral exchange in which two or more countries are assisting each other in relation to PRTR developments (please provide relevant details).

A:

7. Please provide any other information that you feel is relevant to the development of bilateral cooperation with your country on PRTRs.

A:

Please send your response by 9th March 2012 to the secretariat of the Protocol on PRTRs: public.participation@unece.org Many thanks for your contribution!

I. POLLUTANT MONITORING

Part I aims to collect information on current activities in relation to pollutant monitoring in the countries, such as identifying who pays for the monitoring and who carries out the monitoring.

Ouestions

- 1. Who pays for the pollutant monitoring in your country?
- A: Monitoring at point source facilities is paid by the facilities themselves. Polluter pays principle.
- 2. Who carries out the pollutant monitoring in your country?
- A: Monitoring at point source facilities is carried out either by the facility itself or competent consultants. Consultants need to have accreditation for monitoring the specific pollutant. Facilities either have to have accreditation or be part of verification tests from a third party.
- 3. Please provide any other information that you feel is relevant to the development of effective pollutant monitoring in your country (e.g. current status of the activities in your country in relation to pollutant monitoring; how pollutant monitoring is carried out; specific pollutant monitoring methodologies used, etc).
- A: From fact sheet monitoring from point sources. The fact sheet is provided to the facilities:

All facilities should have a monitoring program in relation to the requirements of the authorities have set in the permit.

The measurement program shall include: all substances that are specifically regulated by limits in the permit or regulations, other substances that are reporting entities. This is described further in the Climate and Pollution Agency's Guidance to the facilities' PRTR-reporting. The guide is posted on www.klif.no.

The measurement program must describe and justify: the sampling frequency to ensure representative samples of the various steps for measurements:

- 1. methods of flow measurement
- 2. sampling
- 3. analysis

4. calculation and reporting of emissions

The pollution authorities expect that the measurement program:

- is based on a thorough assessment of all emissions and variations in emissions (for example, by different operating conditions,
- abnormal operating conditions, when plants are in operation and when the production volume or raw materials changes)
- has a scale that ensures that the results reflect the actual emissions
- describes the methods used for sampling
- describes the rate of participation in ring tests and action limits of deviation from true values
- describe the frequency of third party inspection indicates which laboratories facilities use when emission measurements carried out by external actors
- describes the calculation and reporting of the results of emission measurements are included in the company's internal control system
- describes how the measurement and calculation program be established, and who has the responsibility to prepare and to implement it.

Representative samples

Facilities have to choose sampling frequency to ensure that the standard deviation is sufficiently low so that the samples are representative. This shall be based on knowledge about variations in the processes and emissions. Therefore, it may be necessary to perform a higher number of measurements for a period, in order to determine the frequency.

Calculation of uncertainty

Facilities should consider the uncertainty contributions of the different steps in the calculations or measurements, the importance of these contributions and to what extent they may differ from the actual emissions. Next, facilities must consider the need for changes in the measurements og calcualtions to reduce uncertainty. Such an assessment must include the discharge impact on the environment, as well as whether reductions are possible and costs associated by reducing the uncertainty further.

Each company must determine if they have sufficient expertise to estimate the uncertainties and the need for changes in the measurements, or if they need external assistance from consultants.

1. Volume

The measurement program should include information about:

- measurements of volume flows like water quantities or gas streams. These must be conducted in a place and in accordance with recognized standards or recommendations from the suppliers of measurement equipment. Any errors in the results due to incorrect measurement should be determined.
- the uncertainties listed for the instruments they use and whether the instruments chosen are sufficiently accurate to indicate the measured volume of procedures for calibration, maintenance and cleaning, and how the results changed by deviations from the procedures
- Ensure that the flow measuring devices are placed at the right spot to be able to deliver a representative measurement in accordance with the standard. Any errors in the results due to incorrect measurements should be determined.

2. Samples

Facilities should define and describe, among other things:

- what standards they use, any given uncertainty for the methods they use and evaluate whether the methods selected, provide sufficient accuracy
- the spot where the equipment for sampling are located to achieve representative sampling
- volume of the samples. It is important to ensure sufficient sample material so that it is possible to calculate emissions. This is most important if concentrations are close to the detection limit.
- duration of the measurement periods to ensure representative samples
- how samples are handled until they are analysed
- how any deviation from the standards affect the results calculate the uncertainty contribution from sampling

3. Analyses

When an external laboratory is conducting the analyses, the facilities shall use the stated uncertainty of the laboratory.

4. Calculation of emissions

In the measurement program, the facilities shall describe briefly the methods used to calculate emissions associated with both emission limits and the total annual emissions. Only days of operation are to be included in the calculation of mean values. If there are significant emissions taking place at days whithout operation, such days are to be included when the mean calculated.

Unless otherwise specified in the permit, the enterprise shall calculate the emissions per unit produced (specific discharge) compared to net production (production approved for sale).

Execution of measurements

Firms shall use laboratories / services that are accredited for the service, if it is carried out by external services.

Measuring equipment used in emission measurements must be checked, calibrated and maintained regularly in accordance with standards or specifications from equipment suppliers. Facilities must be able to document procedures for inspection and calibration with the calibration and maintenance history of the measuring equipment.

It is important that proper selection of sample bottles, preservation, storage and processing of samples before analysis. Errors in any of this can easily destroy the samples and give wrong results.

If the continuous measuring instruments are out of service due to failure or maintenance, the authorities expect that the facilities have alternative methods for determining emissions during this period.

The company shall review and ensure the quality of all the results from emission measurements - even if there are consultants who carry out the measurements.

II. DIFFUSE RELEASES

Part II aims to identify methods in relation to measuring or estimating diffuse releases, such as releases from agricultural farms.

Questions

1. What are the diffuse releases that are measured, calculated or estimated in your country?

A: All to air:

Ammonia Chemical symbol: (NH3)

Arsenic Chemical symbol: (As)

Cadmium Chemical symbol: (Cd)

Carbon dioxide fossil Chemical symbol: (CO2 (F))

Carbon monoxide Chemical symbol: (CO)

ChromiumChemical symbol: (Cr)CopperChemical symbol: (Cu)

<u>Dioxins</u> Chemical symbol: (Dioksin)

LeadChemical symbol: (Pb)MercuryChemical symbol: (Hg)MethaneChemical symbol: (CH4)Nitrogen oxidesChemical symbol: (NOx)Nitrous oxideChemical symbol: (N2O)

Non-methane volatile organic Chemical symbol: (NMVOC)

<u>PAH Total</u> Chemical symbol: (PAH-TOT)

Particulate matterChemical symbol: (PM2,5)Sulfur hexafluorideChemical symbol: (SF6)Sulphur dioxideChemical symbol: (SO2)

Suspended Particles Chemical symbol: (PM10)

<u>Total Suspended Particles</u> Chemical symbol: *(TSP)*

From all sectors, including transports, agriculture, households, products etc. Pollutants depending on what sector.

To water:

Phosphrous total Chemical symbol: (P-TOT)

Total nitrogen Chemical symbol: (N-TOT)

2. Who pays for measuring diffuse releases in your country?

A: Government

3. How is data collected for measuring diffuse releases, including releases from agricultural farms, in your country?

A: Diffuse sources are determined as part of the Norwegian emission inventory. The emissions estimated for the diffuse sources are calculated by multiplying the activity data figures with the emission factors.

For instance for transports: Activity data relevant for the transport sector can be annual fuel consumption for private cars.

Emission factors are established by researching the kinds and amounts of pollutants from combustion of fuels in a car engine. This is combined with information about the composition of the vehicle fleet in Norway. Then a representative amount of emissions from the vehicle fleet can be calculated for a specific year by combining emission factors and activity data.

The Emission Inventory is compiled and maintained by the Climate and Pollution Agency together with Statistics Norway. The Climate and Pollution Agency is responsible for developing emission factors and for collecting information from point sources. Statistics Norway is responsible for drawing up data models to model the emissions and to collect activity data. Statistics Norway also does the final calculations by applying the data model.

The data for the transport sector is published about one year after the collection of the data. Emissions that occurred in 2010 will be published at the beginning of 2012.

- 4. Who carries out the measurement or estimation of diffuse releases, including releases from agricultural farms, in your country?
- A: Climate and Pollution Agency and Statistics Norway
- 5. What methodologies does your country use to measure or estimate diffuse releases²⁹, including releases from agricultural farms? Please provide links to relevant data sources.
- A: Methods are described in the Norwegian emission inventory, documentation reports available under the heading publications and articles.

http://www.ssb.no/english/subjects/01/04/10/

6. Please provide any other information that you feel is relevant to the measurement or estimation of diffuse releases in your country (e.g. additional needs in relation to measuring diffuse sources).

A:

III. IDENTIFYING BILATERAL COOPERATIONS

Part III aims to identify potential for bilateral co operation between countries so as to help meet countries' needs for assistance and training in developing PRTRs.

Questions

- 1. Would your country like to receive bilateral assistance from another country in relation to PRTR development?
- A: No, discussions and knowhow gained from international like PRTR Protocol and OECD task force is sufficient.
- 2. If the answer is YES please describe or list the PRTR functional areas and issues in which your country would most like to receive assistance or training.

A:

3. Can your country provide bilateral assistance on PRTR development to a country that is in need of assistance?

A: Yes

4. If the answer is YES please describe or list the PRTR functional areas and issues in which your country could offer assistance or training.

²⁹ See for guidance, for example: 'Resource Compendium of PRTR Release Estimation Techniques Part 2: Summary of Diffuse Source Techniques' available at http://www.oecd-ilibrary.org/economics/resource-compendium-of-prtr-release-estimation-techniques-part-2-summary-of-diffuse-source-techniques_oecd_papers-v6-art15-en

- A: All relevant areas, depending on the specific need.
- 5. Is your country already involved in bilateral cooperation with another country or international organisation in relation to PRTR development?

A: Yes

- 6. If the answer is YES please describe whether your country is:
 - i) Currently receiving assistance on PRTR projects (please provide relevant details);
 - ii) Currently providing assistance on PRTR projects (please provide relevant details), or
 - iii) Currently involved in a bilateral exchange in which two or more countries are assisting each other in relation to PRTR developments (please provide relevant details).

A: Providing assistance

7. Please provide any other information that you feel is relevant to the development of bilateral cooperation with your country on PRTRs.

A:

Please send your response by 9th March 2012 to the secretariat of the Protocol on PRTRs: public.participation@unece.org Many thanks for your contribution!

I. POLLUTANT MONITORING

Part I aims to collect information on current activities in relation to pollutant monitoring in the countries, such as identifying who pays for the monitoring and who carries out the monitoring.

Ouestions

1. Who pays for the pollutant monitoring in your country?

A: The operators

2. Who carries out the pollutant monitoring in your country?

A: The operators

3. Please provide any other information that you feel is relevant to the development of effective pollutant monitoring in your country (e.g. current status of the activities in your country in relation to pollutant monitoring; how pollutant monitoring is carried out; specific pollutant monitoring methodologies used, etc).

A:

II. DIFFUSE RELEASES

Part II aims to identify methods in relation to measuring or estimating diffuse releases, such as releases from agricultural farms.

Ouestions

1. What are the diffuse releases that are measured, calculated or estimated in your country?

A: NH_3 , PM_{10} , NO_x , SO_x , CO, CO_2 ,

2. Who pays for measuring diffuse releases in your country?

A: Public Administration

3. How is data collected for measuring diffuse releases, including releases from agricultural farms, in your country?

A: Official statistics

- 4. Who carries out the measurement or estimation of diffuse releases, including releases from agricultural farms, in your country?
- A: Estimation under the LRTAP Convention by Public Administration
- 5. What methodologies does your country use to measure or estimate diffuse releases³⁰, including releases from agricultural farms? Please provide links to relevant data sources.
- A: Methodology based on official Polish statistics, e.g. energy statistics, agricultural statistics, transport statistics, industry statistics and emission factors (nationally developed factors as well as internationally recommended ones- EEA/EMEP Emission Inventory Guidebook)
- 6. Please provide any other information that you feel is relevant to the measurement or estimation of diffuse releases in your country (e.g. additional needs in relation to measuring diffuse sources).
- A: Poland hasn't presented yet any data from diffuse sources under the E-PRTR.

III. IDENTIFYING BILATERAL COOPERATIONS

Part III aims to identify potential for bilateral co operation between countries so as to help meet countries' needs for assistance and training in developing PRTRs.

Questions

1. Would your country like to receive bilateral assistance from another country in relation to PRTR development?

A: No

2. If the answer is YES please describe or list the PRTR functional areas and issues in which your country would most like to receive assistance or training.

A:

3. Can your country provide bilateral assistance on PRTR development to a country that is in need of assistance?

A: Yes

4. If the answer is YES please describe or list the PRTR functional areas and issues in which your country could offer assistance or training.

A: How to establish a PRTR database

5. Is your country already involved in bilateral cooperation with another country or international organisation in relation to PRTR development?

A: No

- 6. If the answer is YES please describe whether your country is:
 - i) Currently receiving assistance on PRTR projects (please provide relevant details);
 - ii) Currently providing assistance on PRTR projects (please provide relevant details), or

³⁰ See for guidance, for example: 'Resource Compendium of PRTR Release Estimation Techniques Part 2: Summary of Diffuse Source Techniques' available at http://www.oecd-ilibrary.org/economics/resource-compendium-of-prtr-release-estimation-techniques-part-2-summary-of-diffuse-source-techniques_oecd_papers-v6-art15-en

iii) Currently involved in a bilateral exchange in which two or more countries are assisting each other in relation to PRTR developments (please provide relevant details).

A:

- 7. Please provide any other information that you feel is relevant to the development of bilateral cooperation with your country on PRTRs.
- A: Poland at the beginning of this year (2012) provided assistance on PRTR to Belarus, by bilateral meeting in Warsaw.

Please send your response by 9th March 2012 to the secretariat of the Protocol on PRTRs: public.participation@unece.org Many thanks for your contribution!

SLOVAKIA
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CONTACT INFORMATION
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I. POLLUTANT MONITORING

Part I aims to collect information on current activities in relation to pollutant monitoring in the countries, such as identifying who pays for the monitoring and who carries out the monitoring.

Questions

1. Who pays for the pollutant monitoring in your country?

A:

In principle, the pollutant monitoring in the Slovak Republic is divided to:

- 1) Pollutant monitoring carried out by polluters (= industrial facilities/installations) which are obliged to monitor some pollutants using monitoring stations owned by them; this concerns to the major or large polluters.
- 2) Pollutant monitoring carried out by specialised organisations instituted by the Ministry of Environment of the Slovak Republic (further in short only "Ministry").

Monitoring provided by the polluters runs on their own monitoring equipment, obtaining and operating of which is the obligation of polluters in according to the relevant legislation of the Slovak Republic. All costs related to operation of such monitoring are fully covered by those polluters. But data coming from such monitoring are to be given to state organisations

instituted by the Ministry to be inserted into emissions databases.

Monitoring of pollutants occurred in environment media - air, waters, soil (which practically means monitoring of the quality of those media) is <u>financially covered by subsidy given by</u> the Ministry from the state budget.

Ministry is a central body of the state administration responsible for development and protection of environment. Since protection of 1) water resources, quality of groundwater and surface water, and 2) air quality, are activities to be guaranteed by Ministry, it is the Ministry, which orders pollutants monitoring providing and performance.

Such monitoring activities ordered by the Ministry are executed according to the contract endorsed usually every year, between the Ministry and relevant organisation instituted by the Ministry.

Ministry has institutionalised, and it manages and controls the following institutions and organisations, here are listed those which are related to pollutants monitoring:

- Slovak Hydrometeorological Institute (SHMI)
- Slovak Water Management Enterprise (SWME)
- Water Research Institute (WRI)
- State Geological Institute of Dionyz Stur (SGIDS)

<u>The SHMI</u> financial sources needed to cover monitoring of pollutants consist of 1) transfer finances from the Ministry (= a part of state budget, according to the contract), 2) SHMI's own financial sources, 3) incomes from EU and other projects. The majority of finances needed to cover monitoring come from transfer finances from the Ministry, which cover mainly direct monitoring activities. Indirect monitoring activities, like telecommunication systems maintenance, databases services, equipment/laboratory apparatuses calibration etc., are financed also from the projects and own financial sources.

Slovak Water Management Enterprise (SWME) is state fully budgetary organisation, Water Research Institute (WRI) and State Geological Institute of Dionyz Stur (SGIDS) are state subsidised organisations. Financial sources for covering monitoring activities according to the competences of these particular institutions are similar as described in case of the SHMI.

2. Who carries out the pollutant monitoring in your country?

A:

As mentioned above, there are **4 institutions** which are **related to pollutants monitoring**:

Slovak Hydrometeorological Institute (SHMI) is a specialised organisation providing hydrological and meteorological services at the national and international levels. The SHMI was established by the former Ministry of Forestry and Water Management on the 1st January 1969. The SHMI is a successor of institutions that were providing hydrological and meteorological services in Slovakia from the mid-19th century. It is state subsidised organisation operating under the Ministry.

Water Research Institute (WRI) was founded in 1951 pursuant to the Decree No. 40/51 of the Minister of Building Industry. Since 1974, the WRI has been a government subsidised organization. The WRI is the only institution in Slovakia providing the complex water management research and other related activities resulting from the needs of water management of the Slovak Republic. Basic activity of the WRI is scientific research, expertise and development activity, professional water management consulting and dealing with water management - ecological problems.

State Geological Institute of Dionyz Stur (SGIDS), founded in 1940, is a state susbsidised institution. According to the contract with the Ministry, as a main task realises by the SGIDS is an execution of state geological service.

Slovak Water Management Enterprise (SWME) was found in 1997 as a successor of previous state river basins conservators which had became SWME organisation sections. SWME is a state fully budgetary organisation with main task related to management of watercourses, water constructions built on significant watercourses and management of river basins.

Responsibilities shared as for pollutants monitoring type:

AIR monitoring:

SHMI has a unique position in monitoring of pollutants in the air.

WATER monitoring:

As for pollutants in water, monitoring is spread into more institutions.

Monitoring of the <u>surface water</u> quality is carried out by SHMI, SWME and WRI.

Monitoring of ground water quality is carried out by SHMI and accredited geo-analytical laboratories of the SGIDS.

3. Please provide any other information that you feel is relevant to the development of effective pollutant monitoring in your country (e.g. current status of the activities in your country in relation to pollutant monitoring; how pollutant monitoring is carried out; specific pollutant monitoring methodologies used, etc).

A:

Monitoring of pollutants has been performed according to the national legislation, which is fully in compliance with legislation of EU.

AIR monitoring:

SHMI and its Department of Emissions is the single national entity with the overall responsibility of the compilation and finalisation of inventory reports and their submission to the UNFCC Secretariat and to EC.

SHMI develops and maintains the National Emission Inventory System (NEIS), which is a database of stationary pollution sources to follow development of emissions at regional level. The NEIS software product is constructed as a multi-module system, corresponding fully to the requirements of the current national legislation. NEIS database contains also some technical information about pollution sources, like type of fuel used, fuel consumption etc.

Air quality monitoring:

- has been providing by the SHMI since 1971,
- in 1991, the modernisation of air quality monitoring network had started; manual stations had been replaced by automatic monitoring stations (AMSs); in 2010 the territory of the Slovak Republic has been covered by 30 AMSs;

SHMI owns and operates state meteorological network, a part of which is, apart from the others, the National Air Quality Monitoring Network (38 stations in total, 4 of them are rural stations belonging to the EMEP monitoring network).

Apart from these 38 stations, major polluters are operating their own air quality monitoring stations (9 stations in total, owned by 5 major industrial facility operators, located in 5 districts of the Slovak Republic).

Territory of the Slovak Republic was divided into 8 zones (identical with the administrative regions) and 2 aglomerations (the largiest cities Bratislava and Kosice). In 2010, 19 air quality management areas were specified.

SHMI evaluates the air quality of the whole terrritory of the Slovak Republic by the use of 2 models, which were developed or modified in the SHMI:

- CEMOD model for countrywide modelling of SO₂, NO_x, NO₂, CO and benzene; combination of Gaussian and segment approaches, linear SO₂ chemistry, NO_x chemistry according German TA Luft, emipirical CO/benzene ratios. CEMOD model works on basis of the US EPA-ISC and US EPA-CALINE methodologies;
- IDWA (3D anisotropic inverse distance interpolation, empirical altitude dependence function of concentrations base on background measurements for countrywide modelling of PM₁₀, PM_{2,5} and heavy metals).

Mobile air pollution sources monitoring:

Emissions from mobile sources have been down every year since 1990. To balance emissions from road transport the model program COPERT IV has been used since 2008, approved and recommended by Executive Committee, the UNECE Convention on Long-Range Transboundary Air Pollution.

In addition to road transport, emissions are evaluated also from the pollution sources of rail, air and water shipment. Methodology balances of emissions from the operation of railway traction units is processed according to the methodology EMEP/CORINAIR and non-road sources using emission factors according to the methodological manual Emission Inventory Guidebook. The balance of production of emissions from water shipment in the Slovak Republic is limited to waterway activity in the Slovak Danube.

WATER monitoring:

Every year, the Ministry issues Water Status Monitoring Programme, which consists of detail description of monitoring of all waters in the Slovak Republic, as well as description of competences of particular organisations and institutions which share responsibilities in water monitoring programme. Annual Water Status Monitoring Programme comes out from the General Water Status Monitoring Programme, which is issued for five year period (the present one is valid for the period 2010 – 2015).

Surface water quality monitoring:

- has been executed systematically since 1963, when the national surface water quality monitoring programme had been started;
- SHMI has been overall responsible for the monitoring and evaluation of surface waters since 1982;
- SHMI is responsible for to provide a methodology point of view, SWME responsible for execution of sampling and analyses (chemical-physical, biological analyses);

Monitoring consists of:

- 1) basic monitoring,
- 2) operational monitoring,
- 3) exploratory monitoring,
- 4) protected areas monitoring (sensitive areas included, waters in such areas might be polluted by pesticides or nitrogrenous substances);

In 2010 as many as 277 locations were monitored in basic and operational monitoring. Partial monitoring results are archived in databases of organisations performing related part of monitoring and centrally they are saved in the Central Water Registry operated by the SHMI.

Surface waters monitoring in protected areas overlaps with basic and operational monitoring, 43 locations are monitored (number of locations as planned for 2011).

As for the frequency, monitoring is regularly spread out during the whole year, it means usually 12 times in a year, depending on the parameters to be monitored (some are monitored seasonally, like biological parameters).

Ground water quality monitoring:

It consists of:

- 1) basic monitoring,
- 2) operational monitoring;

In 2010, the monitoring was performed on 586 monitoring locations. Results of the analyses are stored in the local database of the SGIDS and they are archived and processed in the central database system in the Central Water Registry operated by the SHMI.

Into basic monitoring network, there are objects of state monitoring network operated by SHMI or water sources which are not affected by stationary sources, and also other significant water sources or sources of drinking water.

Operational monitoring is executed in such ground water bodies, which had been evaluated as high-risk when the aim is to achieve a good chemical status.

A part of operational monitoring network consists also from objects intended to monitor pesticides.

Ground waters monitoring of nitrogenous substances in protected areas was executed in 1 093 objects (number of locations as planned for 2011). Monitoring network is shared among SHMI and WRI; SHMI's frequency is once a year, WRI's frequency is twice a year.

II. DIFFUSE RELEASES

Part II aims to identify methods in relation to measuring or estimating diffuse releases, such as releases from agricultural farms.

Ouestions

1. What are the diffuse releases that are measured, calculated or estimated in your country?

A:

Diffuse releases into air:

It is caused by these sources:

- households/local furnaces,
- landfills,
- dumps/piles,
- fossil fuels storage and distribution,
- agriculture, cattle farming,
- air-conditioning releases,
- other sources of diffuse releases;

Determination, depending on the type and size of the source, is based on calculations made using:

- 1) data on sales, using or consumption;
- 2) materials balance;
- 3) individual emission factors for specific sources or industry (guide on factors and calculations has

been issued by the Ministry, regularly updated);

4) estimation models (CEMOD, IDWA, as mentioned in I. 3 part of this questionnaire).

Diffuse releases into water:

Diffuse surface waters pollution is caused by:

- nutrients coming from agriculture mainly (pesticides, inorganic and organic fertilisers),
- phosphate emissions from household detergents,
- urban areas without public sewage system, or with discharge of rainwater,
- input of nutrients via atmospheric deposition;

As measurement of emission of substance from diffuse pollution sources is difficult, modelling is used for their quantification.

Estimate of nutrients from diffuse pollution sources for the international Danube river basin (96% of the Slovak territory belong to it) was perfored by MONERIS model, version March 2009.

2. Who pays for measuring diffuse releases in your country?

A: The answer is the same as it has been given in the I.1 part of this questionnaire.

3. How is data collected for measuring diffuse releases, including releases from agricultural farms, in your country?

A: Diffuse releases are emissions, so they are watched as such. The difference between monitoring of usual pollutants and following of diffuse releases is mainly in methodology, because of the nature of diffuse releases: they can not be monitored on monitoring stations, they only can be estimated or calculated.

The ways how to get data:

- using of other information systems, especially those which are operated in the SHMI, like the NEIS and the Central Water Registry,
- cooperation with the Central Controlling and Testing Institute in Agriculture (CCTIA) as for data on pesticides and fertilizers usage and consumption,
- on request from other authorised institutions dealing with data might be needed,
- on request from regional and local authorities and municipalities, which have data for example on some diffuse sources within their districts,
- from projects, mainly those which are managed by the Ministry, and the SHMI, WRI, SWME,
- assigning and supporting projects with pilot studies which might lead to valuable results (data collection, proposals of methodologies for verification of data and methodologies on pollution impact estimation).
- 4. Who carries out the measurement or estimation of diffuse releases, including releases from agricultural farms, in your country?
- A: Responsibilites on measurement or estimation of diffuse releases are related to those institutions which are responsible for monitoring of pollutants.

In case of **air diffuse releases**, the responsible institution is SHMI.

In case of **water diffuse releases**, the responsible institutions are SHMI and WRI, with using data coming from the Central Controlling and Testing Institute in Agriculture (CCTIA).

The Central Controlling and Testing Institute in Agriculture (CCTIA) is national budgetary

organisation directly managed by the Ministry of Agriculture of the Slovak Republic. The basic task of the Institute is to execute professional state supervision and testing under the conditions of the agricultural sector, as well as professional state inspection of quality of inputs into agriculture (agrochemicals, feedstuffs etc.). The activities of the CCTIA within the framework of plant production and animal production are thematically aimed at soil, varieties of agricultural crops, seeds and planting, plant nutrition, plant protection, internal and external quarantine, feedstuffs, animal nutrition.

5. What methodologies does your country use to measure or estimate diffuse releases³¹, including releases from agricultural farms? Please provide links to relevant data sources.

A:

Water diffuse releases: MONERIS model (as mentioned in II. 6 part of this questionnaire)

Air diffuse releases:

- CEMOD model, IDWA model (as mentioned in I. 3 part of this questionnaire)
- IPPC guide for GHGs
- US EPA
- EMEP/EEA for NMVOCs
- UNEP's Standardized Toolkit for Identification and Quantification of Dioxin and Furan Releases for POPs
- EMEP/CORINAIR, RAINS/GAINS model for PM₁₀, PM_{2.5}

Links are given to those websites and documents which are in English, or partially in English at least.

http://www.shmu.sk/en/?page=997

http://w5.shmu.sk/projects/acel/en/?page=1

http://www.vuvh.sk/rsv2/index.php?option=com_content&view=article&id=59&Itemid=68&lang=en

http://www.sazp.sk/public/index/go.php?id=1779&idl=1779&idf=665&lang=sk

http://www.sazp.sk/public/index/open_file.php?file=Admin/2009/vodne/SVaVPvPS-Eng.pdf

http://www.sazp.sk/public/index/open file.php?file=Admin/2009/vodne/EVCP-Eng.pdf

6. Please provide any other information that you feel is relevant to the measurement or estimation of diffuse releases in your country (e.g. additional needs in relation to measuring diffuse sources).

A:

Diffuse AIR pollution estimation

Within diffuse sources of pollution, household/local furnaces are determined, on the district levels.

Determination is based on:

1) calculation of solid fuels and wood sale to inhabitants,

³¹ See for guidance, for example: 'Resource Compendium of PRTR Release Estimation Techniques Part 2: Summary of Diffuse Source Techniques' available at http://www.oecd-ilibrary.org/economics/resource-compendium-of-prtr-release-estimation-techniques-part-2-summary-of-diffuse-source-techniques_oecd_papers-v6-art15-en

- 2) natural gas consumption for inhabitants,
- 3) individual emission factors;

The emission balance is being processed in the system NEIS, since 2001. In the past the balance has not been carried out regularly, in the missing years the data have been additionally calculated. In such a way the consistent data time series since 1990 have been obtained.

<u>Landfills</u>, open dumps/piles and other diffuse sources are classified as small air emission sources; that is why emissions data are not stored in the NEIS system. The NEIS system storages data only about large and medium air pollution sources. Data on emissions of such sources might be obtained through district authorities, since those administration offices are responsible for permitting operation of such pollution sources. However, for reporting activities the national estimations are made by the SHMI, using calculations based on individual emission factors accepted and issued by the Ministry, to be used for such calculations.

Diffuse WATER pollution estimation

MONERIS model:

- first time used in 2004 in the Slovak Republic, with input data representing the period of the years 2001 2002;
- application of the model to modelling of nutrient runoff was agreed by all Danube river basin states including Slovakia;
- sub-basins of rivers Dunajec and Poprad belong to the international Vistula river basin results from modelling were took over Vistula basin modelling performed by an older MONERIS model version that does not offer so detailed structure of outputs as the actual version does, expert opinion was therefore necessary in several cases;
- data were updated, similarly as for other data representing significant pressures, input data for the model MONERIS were therefore updated to the time level of years 2004 2005.

Model principle:

Emissions of nutrients enter the river systems via 7 input pathways:

- 1. direct atmospheric deposition to water surface,
- 2. surface runoff,
- 3. erosion,
- 4. tile drainage,
- 5. groundwater,
- 6. point pollution sources (predominantly agromerations),
- 7. urban areas without public sewage system, or with discharge of rainwater;

The model results show that 41 564 tonnes of total nitrogen and 2 736 tones of phosphorus are emitted into the river system in the Slovak Republic territory every year. Municipalities (as diffuse sources) are dominant as for nitrogen emissions, they are followed by agriculture (represented by time period of years 2000 - 2005).

III. IDENTIFYING BILATERAL COOPERATIONS

Part III aims to identify potential for bilateral co operation between countries so as to help meet countries' needs for assistance and training in developing PRTRs.

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()	nestions

- 1. Would your country like to receive bilateral assistance from another country in relation to PRTR development?
- A: Slovak Republic provides information and data related to PRTR on acceptable level, both on national and international. Public has access to PRTR data, as well as to information about activities within development of PRTR. Slovak PRTR Registry has been under development, although it fulfills basic and necessary data and information. The same stands for activities related to PRTR, its development and dissemination of information about PRTR and from PRTR Registry.

Slovak Republic, rather than receive bilateral assistance, would like to cooperate with other countries within projects focused on problematic or questionable issues related to PRTR, since projects seem to be more about partnership when compared to assistance.

In short, the Slovak Republic can not say that does not need bilateral assistance, but rather than assistance, would appreciate cooperation in the form of projects, bilateral or multilateral.

- 2. If the answer is YES please describe or list the PRTR functional areas and issues in which your country would most like to receive assistance or training.
- A: Slovak Republic would appreciate having opportunities or possibilities to cooperate, or to be trained in developing methodologies on emissions from diffuse sources calculation/estimation, related to diffuse sources emissions to all environment components. Special focus is given to landfills as diffuse sources and its emissions into air and water.
- 3. Can your country provide bilateral assistance on PRTR development to a country that is in need of assistance?
- A: Yes, the Slovak Republic is able and willing to provide such assistance.
- 4. If the answer is YES please describe or list the PRTR functional areas and issues in which your country could offer assistance or training.
- A: Slovak Republic, in case of interest, would like to share experience on establishing PRTR Registry on the national level, which is closely related to creating relevant national legislation.

Further, the Slovak Republic can offer assistance and training on procedures of collecting, verifying and processing of emissions data which are stored in the national PRTR Registry, so called National Pollution Registry.

Slovak Republic can also offer training and assistance referring to data validation procedure of data to be stored in National Pollution Registry (= national PRTR Registry) and data reported into other information systems, which are operated to fulfill other legislative rules, e. g. validation of PRTR air emissions data using air emissions data of National Emissions Inventory System, in order to identify possible mistakes or discrepancies.

- 5. Is your country already involved in bilateral cooperation with another country or international organisation in relation to PRTR development?
- A: No, by now there is no bilateral cooperation held with another country or international organisation. But, due to above standard relationships with Czech Republic, there is quite intensive communication between relevant institutions and experts involved.
- 6. If the answer is YES please describe whether your country is:
 - xix) Currently receiving assistance on PRTR projects (please provide relevant details);
 - xx) Currently providing assistance on PRTR projects (please provide relevant details), or
 - xxi) Currently involved in a bilateral exchange in which two or more countries are assisting each other in relation to PRTR developments (please provide relevant details).

A: ---

7. Please provide any other information that you feel is relevant to the development of bilateral cooperation with your country on PRTRs.

A: In our opinion, countries can share a lot of experience, but the benefit of it is useful and visible, and applicable, only if the country has even comparable economy structure, since this might mean also comparable environment protection history and budget for environment protection allocated.

But it does not mean that countries with different economy structure can not become "receivers" of experience from the other countries; in such case the other countries – "providers" are those who give experience and "receivers" are taking assistance. But anyway, sharing experience has always been very good starting point, at least.

Working on this experience, for the Slovak Republic, experience of countries like Czech Republic, Poland, Hungary etc. has been always valuable.

Generally, ideas, inspirations and methods on the principle of the service to public could be very valuable and useful to take as experience from other countries with longer and more intensive history of environment protection.

Please send your response by 9th March 2012 to the secretariat of the Protocol on PRTRs: public.participation@unece.org Many thanks for your contribution!

SPAIN

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I. POLLUTANT MONITORING

Part I aims to collect information on current activities in relation to pollutant monitoring in the countries, such as identifying who pays for the monitoring and who carries out the monitoring.

Questions

1. Who pays for the pollutant monitoring in your country?

The assumption of cost depends on what type of monitoring is carried out. Usually the pollutant monitoring conditions are set out in environmental permits. In these cases the cost of monitoring are assumed by owner/operators.

The authorities (central or regional governments) finances for monitoring the environmental quality (air /water and soil) and also may assume the costs in routine inspection programs.

2. Who carries out the pollutant monitoring in your country?

Α.

The entities that usually carry out the monitoring are accredited (certified) laboratories. These laboratories are in charge of performing the monitoring and also prepare the technical reports that facilities must submit to the competent authority for compliance evaluation (depending on the environmental permit conditions). Also these entities can act as inspection body on behalf of the competent authority.

3. Please provide any other information that you feel is relevant to the development of effective pollutant monitoring in your country (e.g. current status of the activities in your country in relation to pollutant monitoring; how pollutant monitoring is carried out; specific pollutant monitoring methodologies used, etc).

Α.

II. DIFFUSE RELEASES

Part II aims to identify methods in relation to measuring or estimating diffuse releases, such as releases from agricultural farms.

Ouestions

1. What are the diffuse releases that are measured, calculated or estimated in your country?

A:

The main categories in which diffuse releases are estimated (national emission inventory, mainly): agricultural sector (farming intensive/extensive, pesticides, fertiliser, manure processing, agricultural land, agricultural fuels,...); transport sector (roads, railways, aviation, offshore fishing or shipping,...); household (mainly heating/cooling systems,...); small/medium industrial sector),...

Also other anthropogenic sources covered by the National Emission Inventory.

2. Who pays for measuring diffuse releases in your country?

A:

Generally speaking, the central and regional governments finance the costs of these type of estimations.

3. How is data collected for measuring diffuse releases, including releases from agricultural farms, in your country?

A:

Pollutants usually considered: CLRTAP and others from international conventions/protocols. Nitrogen, Phosphorous, CDO, in water.

Calculations and Estimations rather than measurements are the methodologies used to obtain data. When available international standards are used. Emission factors, mass balance calculations, activity data, consumption data, national statistics, EMEP/IPCC methodologies, also mapping-GIS,...

4. Who carries out the measurement or estimation of diffuse releases, including releases from agricultural farms, in your country?

A:

Central and regional governments supported by other states bodies such universities, R+D institutions.

Depending the permit conditions some industrial sector also have to carry out measurements/calculation/estimation of its diffuse releases.

- 5. What methodologies does your country use to measure or estimate diffuse releases³², including releases from agricultural farms? Please provide links to relevant data sources.
- A: When available international standards are used. Emission factors, mass balance calculations, activity data, consumption data, national statistics, EMEP/IPCC methodologies, also mapping-GIS,...

For farming, the state bodies have some specific software to help for calcualtions/estiamtions.

Some guidances/links to international bodies are usually provided (CORINE, IPCC, EPA, EEA etc...)

6. Please provide any other information that you feel is relevant to the measurement or estimation of diffuse releases in your country (e.g. additional needs in relation to measuring diffuse sources).

³² See for guidance, for example: 'Resource Compendium of PRTR Release Estimation Techniques Part 2: Summary of Diffuse Source Techniques' available at http://www.oecd-ilibrary.org/economics/resource-compendium-of-prtr-release-estimation-techniques-part-2-summary-of-diffuse-source-techniques_oecd_papers-v6-art15-en

A:			

III. IDENTIFYING BILATERAL COOPERATIONS

Part III aims to identify potential for bilateral co operation between countries so as to help meet countries' needs for assistance and training in developing PRTRs.

Questions 1. Would your country like to receive bilateral assistance from another country in relation to PRTR development?

A:

n.a.

2. If the answer is YES please describe or list the PRTR functional areas and issues in which your country would most like to receive assistance or training.

A:

n.a.

3. Can your country provide bilateral assistance on PRTR development to a country that is in need of assistance?

A:

YES.

4. If the answer is YES please describe or list the PRTR functional areas and issues in which your country could offer assistance or training.

Designing/ implementation e-tool for reporting/ revision/ management/ publishing PRTR data.

Legislation

Wesite developmen

Diffusion/awareness activities to industry, public.

Training for trainers.

A:

5. Is your country already involved in bilateral cooperation with another country or international organisation in relation to PRTR development?

A:

YES.

- 6. If the answer is YES please describe whether your country is:
 - iv) Currently receiving assistance on PRTR projects (please provide relevant details);
 - v) Currently providing assistance on PRTR projects (please provide relevant details),

or

- vi) Currently involved in a bilateral exchange in which two or more countries are assisting each other in relation to PRTR developments (please provide relevant details).
- A: Currently providing assistance on PRTR projects:
 - Financial support (Spanish Government) to Centralamerican Commission for

Environment and Development (CCAD) to design and implement a Regional PRTR for Centralamerican Region. And National PRTRs in Central American countries (Guatemala, Belize, Honduras, Costa Rica).

One of the main result of this project has been the translation into Spanish of the "UNECE Guidance on implementation of the PRTR Protocol"

- Technical assistance to UNEP/GEF/UNITAR project relating the implementation of PRTRs in several countries (Perú, Ecuador). Also providing technical materials for other Asian countries involved in this project.
- European Twining project (Spain-Poland) in Turkey relating the implementation of IED and PRTR European legislation.
- 7. Please provide any other information that you feel is relevant to the development of bilateral cooperation with your country on PRTRs.

A:

The main issue in all these activities are related in finding the adequate financial support. Not always is possible to finance directly using Spanish founds. But PRTR-España is opened to technical support/assistance when needed/requested.

Please send your response by 9th March 2012 to the secretariat of the Protocol on PRTRs: public.participation@unece.org Many thanks for your contribution!

SWEDEN

CONTACT INFORMATION

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I. POLLUTANT MONITORING

Part I aims to collect information on current activities in relation to pollutant monitoring in the countries, such as identifying who pays for the monitoring and who carries out the monitoring.

Ouestions

- 1. Who pays for the pollutant monitoring in your country?
- A: Operators (polluter pays principle) and authorities.
- 2. Who carries out the pollutant monitoring in your country?
- A: Operators and authorities mostly through consultants
- 3. Please provide any other information that you feel is relevant to the development of effective pollutant monitoring in your country (e.g. current status of the activities in your country in relation to pollutant monitoring; how pollutant monitoring is carried out; specific pollutant monitoring methodologies used, etc).

A: -

II. DIFFUSE RELEASES

Part II aims to identify methods in relation to measuring or estimating diffuse releases, such as releases from agricultural farms.

Questions

- 1. What are the diffuse releases that are measured, calculated or estimated in your country?
- A: Emission data for diffuse emissions are generated for the following sectors 1) Energy supply, 2) Industrial processes, 3) Transport, 4) working machines, 5) solvent usage, 6) agriculture, 7) waste, sewers, 8) international shipping and aerial navigation.
- 2. Who pays for measuring diffuse releases in your country?
- A: National authorities
- 3. How is data collected for measuring diffuse releases, including releases from agricultural farms, in your country?

A: Diffuse emissions to water: The data are collected from different national monitoring programmes, such as e.g. metals in lakes and rivers, atmospheric deposition in precipitation. Further, other data that are necessary in the modelling of emissions are collected from different sources, e.g. geographical information (soil type and land use maps), statistics (population, agriculture statistics) and climate data.

The data collection for diffusive emissions to air is described in the following documents:

- iv) National Inventory Report Sweden 2012 submitted under the UNFCCC
- v) National Inventory Report Sweden 2012 Annexes submitted under the UNFCCC
- vi) Informative Inventory Report 2012 Sweden submitted under CLRTAP
- 4. Who carries out the measurement or estimation of diffuse releases, including releases from agricultural farms, in your country?
- A: Swedish EPA through consultants.
- 5. What methodologies does your country use to measure or estimate diffuse releases³³, including releases from agricultural farms? Please provide links to relevant data sources.
- A: The diffuse emissions water are modelled in a GIS database. The diffuse sources are modelled by multiplying run off rate, land area and leachate values for all land use categories. All the method documentation is in Swedish.

The methodologies for estimating diffusive emissions to air are described in the following documents:

- vii) National Inventory Report Sweden 2012 submitted under the UNFCCC
- viii) <u>National Inventory Report Sweden 2012 Annexes submitted under the UNFCCC</u>
- ix) Informative Inventory Report 2012 Sweden submitted under CLRTAP
- 6. Please provide any other information that you feel is relevant to the measurement or estimation of diffuse releases in your country (e.g. additional needs in relation to measuring diffuse sources).
- A: At present a pilot project financed by the Swedish EPA is carried out where the aim is to gather and generate data for diffuse emissions to water, for a number of different pollutants.

III. IDENTIFYING BILATERAL COOPERATIONS

Part III aims to identify potential for bilateral co operation between countries so as to help meet countries' needs for assistance and training in developing PRTRs.

Questions

1. Would your country like to receive bilateral assistance from another country in relation to

See for guidance, for example: 'Resource Compendium of PRTR Release Estimation Techniques Part 2: Summary of Diffuse Source Techniques' available at http://www.oecd-ilibrary.org/economics/resource-compendium-of-prtr-release-estimation-techniques-part-2-summary-of-diffuse-source-techniques-oecd-papers-v6-art15-en

PRTR development?

A: No

2. If the answer is YES please describe or list the PRTR functional areas and issues in which your country would most like to receive assistance or training.

A: -

- 3. Can your country provide bilateral assistance on PRTR development to a country that is in need of assistance?
- A: Yes, if human and monitary resources are available.
- 4. If the answer is YES please describe or list the PRTR functional areas and issues in which your country could offer assistance or training.
- A: Implementation process, methods for pollutant monitoring.
- 5. Is your country already involved in bilateral cooperation with another country or international organisation in relation to PRTR development?
- A: During 2011 Sweden hosted Belarus and gave a presentation of data flow and the Swedish PRTR website.
- 6. If the answer is YES please describe whether your country is:
 - i) Currently receiving assistance on PRTR projects (please provide relevant details);
 - ii) Currently providing assistance on PRTR projects (please provide relevant details), or
 - iii) Currently involved in a bilateral exchange in which two or more countries are assisting each other in relation to PRTR developments (please provide relevant details).
- A: No current assistance. Sweden will soon have completed an English version of a report describing the Swedish implementation process. The report will be made available at the Swedish PRTR website http://utslappisiffror.naturvardsverket.se/en/
- 7. Please provide any other information that you feel is relevant to the development of bilateral cooperation with your country on PRTRs.

A: -

Please send your response by 9th March 2012 to the secretariat of the Protocol on PRTRs: public.participation@unece.org Many thanks for your contribution!

I. POLLUTANT MONITORING

Part I aims to collect information on current activities in relation to pollutant monitoring in the countries, such as identifying who pays for the monitoring and who carries out the monitoring.

Ouestions

- 1. Who pays for the pollutant monitoring in your country?
- A: Point sources: the emittor pays the monitoring. Diffuse sources see part II.
- 2. Who carries out the pollutant monitoring in your country?
- A: Point sources: The emittor himself or he mandates an engineering company.
- 3. Please provide any other information that you feel is relevant to the development of effective pollutant monitoring in your country (e.g. current status of the activities in your country in relation to pollutant monitoring; how pollutant monitoring is carried out; specific pollutant monitoring methodologies used, etc).
- A: Pollutant monitoring bases primarily on measuring networks of imissions into air and water and measurements of emissions in regular intervals as legal requirements. Release from diffuse sources are calculated based on measured total emissions or imissions, taking into consideration the known point sources.

II. DIFFUSE RELEASES

Part II aims to identify methods in relation to measuring or estimating diffuse releases, such as releases from agricultural farms.

Ouestions

- 1. What are the diffuse releases that are measured, calculated or estimated in your country?
- A: Air (PCDD+PCDF, PAH, Hg, Cd, Pb, N₂O, NH₃, CH₄, PM10, SO_x, NO_x, NMVOC, CO, CO₂)

Surface Water (P_{tot}, DRP, N_{tot}, nitrate, nitrit, ammonium, DOC, TOC, Cd, Pb, Cu, Zn, Cr, Ni, Cl_{tot}, pesticides, biocides)

- 2. Who pays for measuring diffuse releases in your country?
- A: The Federal Office for the Environment (FOEN), the cantonal authorities and emitters (e.g. households)
- 3. How is data collected for measuring diffuse releases, including releases from agricultural farms, in your country?

A: routine monitoring networks for air and water quality and emission measurements at stationary sources.

- 4. Who carries out the measurement or estimation of diffuse releases, including releases from agricultural farms, in your country?
- A: Different federal research organisations and Federal Office for the Environment
- 5. What methodologies does your country use to measure or estimate diffuse releases³⁴, including releases from agricultural farms? Please provide links to relevant data sources.

A: Air: Emission database, based on calculation models (e.g. Agrammon, a simulation model for the ammonia emissions from agriculture, http://www.agrammon.ch) and emission measurements. This emission database is the basis for the annual submissions of the air pollution emission inventory and informative inventory report to the UNECE (CLRTAP) (http://www.ceip.at/submissions-under-clrtap/) as well as the GHG inventory and national inventory report to the UNFCCC (http://www.bafu.admin.ch/klima/09570/09574/index.html?lang=de). Both reports contain a short description of the database.

Air quality data are public: http://www.bafu.admin.ch/luft/luftbelastung/index.html?lang=en

Surface Water: Ongoing FOEN project to quantify relevance diffuse emissions. No database available. Project description: http://www.bafu.admin.ch/gewaesserschutz/03716/index.html.

Several research projects have been conducted by EAWAG quantifying agricultural and non agricultural surface water input of pesticides on the catchment scale: http://www.eawag.ch/forschung/uchem/index

- 6. Please provide any other information that you feel is relevant to the measurement or estimation of diffuse releases in your country (e.g. additional needs in relation to measuring diffuse sources).
- A: It would be welcomed to measure the emissions of agriculture into water in the next years and to have a calculation model for emissions into water based on the land use statistics.

III. IDENTIFYING BILATERAL COOPERATIONS

Part III aims to identify potential for bilateral co operation between countries so as to help meet countries' needs for assistance and training in developing PRTRs.

Questions

1. Would your country like to receive bilateral assistance from another country in relation to

³⁴ See for guidance, for example: 'Resource Compendium of PRTR Release Estimation Techniques Part 2: Summary of Diffuse Source Techniques' available at http://www.oecd-ilibrary.org/economics/resource-compendium-of-prtr-release-estimation-techniques-part-2-summary-of-diffuse-source-techniques_oecd_papers-v6-art15-en

PRTR development?

A: no

2. If the answer is YES please describe or list the PRTR functional areas and issues in which your country would most like to receive assistance or training.

A:

- 3. Can your country provide bilateral assistance on PRTR development to a country that is in need of assistance?
- A: Switzerland usually prefers multilateral activities.
- 4. If the answer is YES please describe or list the PRTR functional areas and issues in which your country could offer assistance or training.
- A: Electronic reporting and data handling; data presentation.
- 5. Is your country already involved in bilateral cooperation with another country or international organisation in relation to PRTR development?

A: Yes

- 6. If the answer is YES please describe whether your country is:
 - i) Currently receiving assistance on PRTR projects (please provide relevant details);
 - ii) Currently providing assistance on PRTR projects (please provide relevant details), or
 - iii) Currently involved in a bilateral exchange in which two or more countries are assisting each other in relation to PRTR developments (please provide relevant details).
- A: Providing financial and technical support of PRTR projects of UNITAR;

Cooperation in projects of the OECD Task force on PRTR that provide important background documents for countries developing a PRTR.

- 7. Please provide any other information that you feel is relevant to the development of bilateral cooperation with your country on PRTRs.
- A: We encourage collaboration on an international level (UNITAR, UNECE, OECD) due to multiplicator effects. Many questions could be solved by telephone conferences.

Please send your response by 9th March 2012 to the secretariat of the Protocol on PRTRs: public.participation@unece.org Many thanks for your contribution!

I. POLLUTANT MONITORING

Part I aims to collect information on current activities in relation to pollutant monitoring in the countries, such as identifying who pays for the monitoring and who carries out the monitoring.

Ouestions

- 1. Who pays for the pollutant monitoring in your country?
- A: The required finances to perform monitoring of pollutants are prescribed in the regulation "Decree on the amount of compensation paid by operators of installations carrying out activities which it is issued as A integrated environmental permit".
- 2. Who carries out the pollutant monitoring in your country?
- A: Legal and natural persons owning sources of emission and which by their activities make impact on one or more environmental media and areas and/or use natural resources shall under the special law carry out internal monitoring of the emission sources or natural resources use. Legal and natural persons that with their activities contribute to imission, shall also carry out monitoring of imisssions in accordance with the integrated environmental permits. (Low on Environment)
- 3. Please provide any other information that you feel is relevant to the development of effective pollutant monitoring in your country (e.g. current status of the activities in your country in relation to pollutant monitoring; how pollutant monitoring is carried out; specific pollutant monitoring methodologies used, etc).
- A:
 - The operator is obliged also to undertake self monitoring to assess compliance with IPPC Permits and Adjustment plan Permits. It is stipulated for:
- A IPPC permit holder as "the A IPPC Permit shall contain data, inter alias, on areas and the manner of performing the self-monitoring"
- Adjustment plan Permits shall include monitoring and manner of reporting
- This obligation is developed in details in the Rulebooks on procedure for obtaining A and B IPPC Permits and Permits on Adjustment plan.

The finances for measuring the diffuse emission according to CORINAIR are from projects.

II. DIFFUSE RELEASES

Part II aims to identify methods in relation to measuring or estimating diffuse releases, such as releases from agricultural farms.

Ouestions

- 1. What are the diffuse releases that are measured, calculated or estimated in your country?
- A: Fugitive emissions from the operators are calculated while the emission from mobile sources are measured. The operator is obliged to use the methodology for calculation of emissions into air as prescribed by the CORINAIR Rulebook, while the methodology for measurements is still the old and new one will be prepared and adopted
- 2. Who pays for measuring diffuse releases in your country?
- A: The operator is obliged also to undertake self monitoring to assess compliance with IPPC Permits and Adjustment plan Permits. It is stipulated for:
- A IPPC permit holder as "the A IPPC Permit shall contain data, inter alias, on areas and the manner of performing the self- monitoring"
- Adjustment plan Permits shall include monitoring and manner of reporting
- This obligation is developed in details in the Rulebooks on procedure for obtaining A and B IPPC Permits and Permits on Adjustment plan.
- The finances for measuring the diffuse emission according to CORINAIR are from projects.
- 3. How is data collected for measuring diffuse releases, including releases from agricultural farms, in your country?
- A: Data collection it proscribed in details in the Rulebooks on procedure for obtaining A and B IPPC Permits and Permits on Adjustment plan Permits (for the Applications and for the Permits)
- 4. Who carries out the measurement or estimation of diffuse releases, including releases from agricultural farms, in your country?
- A:Minnistry of Environment and Physical Planning carries out the measurments or estimation of diffuse releases, but can delegate authority to other
- 5. What methodologies does your country use to measure or estimate diffuse releases³⁵, including releases from agricultural farms? Please provide links to relevant data sources.
- A: The issue of methodology is regulated in the rulebooks for IPPC Regardung emission to air the operator is obliged to use the methodology for calculation of emissions into air as prescribed by the CORINAIR Rulebook, while the methodology for measurements is still the old, and new one will be prepared and adopted.
- 6. Please provide any other information that you feel is relevant to the measurement or estimation of diffuse releases in your country (e.g. additional needs in relation to measuring diffuse sources).

A:

III. IDENTIFYING BILATERAL COOPERATIONS

³⁵ See for guidance, for example: 'Resource Compendium of PRTR Release Estimation Techniques Part 2: Summary of Diffuse Source Techniques' available at http://www.oecd-ilibrary.org/economics/resource- compendium-of-prtr-release-estimation-techniques-part-2-summary-of-diffuse-source-techniques oecd papers-v6art15-en

Part III aims to identify potential for bilateral co operation between countries so as to help meet countries' needs for assistance and training in developing PRTRs.

Questions

- 1. Would your country like to receive bilateral assistance from another country in relation to PRTR development?
- A:Yes we would appreciate that kind of help in the process of development and implementation of PRTR Protocol
- 2. If the answer is YES please describe or list the PRTR functional areas and issues in which your country would most like to receive assistance or training.
- A: 1. Development of the PRTR Database
 - 2. Develope user web application
- 3. Training for authorities on the reporting process and obligations regards of PRTR Protocol;
 - 4. Training for operators of facilities on the reporting process and obligations in different regions and/or for specific sectors
- 3. Can your country provide bilateral assistance on PRTR development to a country that is in need of assistance?

A:Unfourtunately we are not able to assist other countries.

4. If the answer is YES please describe or list the PRTR functional areas and issues in which your country could offer assistance or training.

A:

- 5. Is your country already involved in bilateral cooperation with another country or international organisation in relation to PRTR development?
- A:Yes there is cooperation with international organisation in relation to PRTR development in Republic of Macedonia.
- 6. If the answer is YES please describe whether your country is:
 - xxii) Currently receiving assistance on PRTR projects (please provide relevant details);
 - xxiii) Currently providing assistance on PRTR projects (please provide relevant details), or
 - xxiv) Currently involved in a bilateral exchange in which two or more countries are assisting each other in relation to PRTR developments (please provide relevant details).
- A: (i) In cooperation with The Regional Environmental Center for Central and Eastern Europe (REC) and the Ministry of Environment and Physical Planning of our contry there is ongoing the project called "Capacity Building to Put the Aarhus Convention into Action and Support Development of PRTR Systems in Selected South East European Countries. One of the objectives related to The PRTR is to assist environmental agencies in setting up and operating PRTR systems in line with the PRTR Protocol and the EU's E-PRTR requirements as well implementation of the Protocol in the FYR of Macedonia; as well as to build awareness and understanding of operators and NGOs about their role and actions, responsibilities and benefits in FYR of Macedonia.

Regarding the (ii) and (iii) question We would like to inform you that Repoblic of Macedonia is not involved in such activities.

7. Please provide any other information that you feel is relevant to the development of bilateral cooperation with your country on PRTRs.

A:			
	A:		

Please send your response by 9th March 2012 to the secretariat of the Protocol on PRTRs: public.participation@unece.org Many thanks for your contribution!

UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND

CONTACT INFORMATION

Please provide name and contact data of the person who filled in the questionnaire:

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I. POLLUTANT MONITORING

Part I aims to collect information on current activities in relation to pollutant monitoring in the countries, such as identifying who pays for the monitoring and who carries out the monitoring.

Ouestions

1. Who pays for the pollutant monitoring in your country?

A:Operators

2. Who carries out the pollutant monitoring in your country?

A:Operators mainly, but regulators sometimes carry out monitoring in specific cases

3. Please provide any other information that you feel is relevant to the development of effective pollutant monitoring in your country (e.g. current status of the activities in your country in relation to pollutant monitoring; how pollutant monitoring is carried out; specific pollutant monitoring methodologies used, etc).

A:Monitoring of pollutants, both at point source and diffuse levels, is very well developed in the UK. There is a clear line of responsibility between operators who are required as a condition of their permit to monitor and report emissions, and regulators who regulate, inspect sites and verify records of emissions.

II. DIFFUSE RELEASES

Part II aims to identify methods in relation to measuring or estimating diffuse releases, such as releases from agricultural farms.

Ouestions

1. What are the diffuse releases that are measured, calculated or estimated in your country?

A:Currently diffuse releases to air from transport, agriculture, aviation, shipping and other non-industrial sources are estimate and reported as part of the UK's National Atmospheric Emissions Inventory: http://naei.defra.gov.uk/. Information on methods can be found at: http://naei.defra.gov.uk/report_link.php?report_id=626

A project is currently underway to calculate diffuse releases of certain persistent organic pollutants to support UK ratification of the UNEP Stockholm Convention. The results will be published when the study is complete.

- 2. Who pays for measuring diffuse releases in your country?
- A: Defra (government department) and the devolved administrations. Measurements are rarely undertaken. Estimates are predominately derived from activity information and information received from literature or stakeholders.
- 3. How is data collected for measuring diffuse releases, including releases from agricultural farms, in your country?
- A: Please see page 23 of this report: http://naei.defra.gov.uk/report_link.php?report_id=626
- 4. Who carries out the measurement or estimation of diffuse releases, including releases from agricultural farms, in your country?
- A: Defra, the Devolved Administrations and DECC with the assistance of its NAEI partners AEA.
- 5. What methodologies does your country use to measure or estimate diffuse releases³⁶, including releases from agricultural farms? Please provide links to relevant data sources.
- A: Please see: Please see page 23 of this report: http://naei.defra.gov.uk/report_link.php?report_id=626
- 6. Please provide any other information that you feel is relevant to the measurement or estimation of diffuse releases in your country (e.g. additional needs in relation to measuring diffuse sources).

A:There is currently an improvement programme underway to reduce the uncertainty in the estimates of emission from agricultural sources particularly to better understand the detail of agricultural practices and the appropriate emission factor. Other work is underway to reduce uncertainty in some other sectors. We do not currently have a system to quantify other diffuce sources though work is ongoing to improve the quantification of diffuse sources to water bodies.

III. IDENTIFYING BILATERAL COOPERATIONS

Part III aims to identify potential for bilateral co operation between countries so as to help meet countries' needs for assistance and training in developing PRTRs.

Ouestions

Question

1. Would your country like to receive bilateral assistance from another country in relation to PRTR development?

A: The UK is a global leader in PRTR however we are part of EU, OECD and UN PRTR development initiatives and we regularly exchange knowledge.

2. If the answer is YES please describe or list the PRTR functional areas and issues in which your country would most like to receive assistance or training.

³⁶ See for guidance, for example: 'Resource Compendium of PRTR Release Estimation Techniques Part 2: Summary of Diffuse Source Techniques' available at http://www.oecd-ilibrary.org/economics/resource-compendium-of-prtr-release-estimation-techniques-part-2-summary-of-diffuse-source-techniques_oecd_papers-v6-art15-en

A: N/A

- 3. Can your country provide bilateral assistance on PRTR development to a country that is in need of assistance?
- A: The UK continues to share its PRTR expertise with countries with economies in transition. Given the current global economic climate, we are only able to provide advice on setting up and implementing PRTR systems and possibly, some documentation. It is not possible to include financial assistance at this time.
- 4. If the answer is YES please describe or list the PRTR functional areas and issues in which your country could offer assistance or training.
- A: Provision of advice on setting up and implementing PRTR systems and sharing some documentation.
- 5. Is your country already involved in bilateral cooperation with another country or international organisation in relation to PRTR development?

A: Yes

- 6. If the answer is YES please describe whether your country is:
 - i) Currently receiving assistance on PRTR projects (please provide relevant details);
 - ii) Currently providing assistance on PRTR projects (please provide relevant details), or
 - iii) Currently involved in a bilateral exchange in which two or more countries are assisting each other in relation to PRTR developments (please provide relevant details).
- A: We have shared information with colleagues in Israel and given presentations in Tel Aviv at the request of the EU. Currently, we provide information to colleagues there on an ad hoc basis
- 7. Please provide any other information that you feel is relevant to the development of bilateral cooperation with your country on PRTRs.

A: N/A

Please send your response by 9th March 2012 to the secretariat of the Protocol on PRTRs: public.participation@unece.org Many thanks for your contribution!