

# 2018

## Workshop Report for “Ecuador Pollutant Release and Transfer Register (EPTR) introduction”



**Ministry of  
Environment of  
Ecuador**

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**Quito, Ecuador**

# **Workshop Report for “Ecuador Pollutant Release and Transfer Register (EPRTR)”**

## **1. Introduction**

The Ministry of Environment of Ecuador (MoE) in cooperation with The United Nations Institute for Training and Research (UNITAR), is executing the project named “Global Project on the Implementation of PRTRs as a tool for POPs reporting, dissemination and awareness raising for Belarus, Cambodia, Ecuador, Kazakhstan, Moldova and Peru “. The main objective of this project is to report, collect, analyze and provide to the public information about pollutant emissions and transfer to the environment in the air, land and water, as well as the industrial hazardous waste generated in the entire national territory. To achieve it, an information system will be built, which will content all the data collected from the industries and the other diffuses sources. This platform will show crucial information that contribute to the environmental management.

One of the activities established in the Memorandum of Understanding signed by the MoE and UNITAR, was to organize a National Inception Workshop, named “Ecuador Pollutant Release and Transfer Register (EPRTR) introduction”. This workshop was held on the 8<sup>th</sup> may, 2018, having as a main venue the auditorium of the National Electoral Council (CNE) located at 6 de Diciembre Avenue N33-122. All the activities carried out in the workshop will be detailed in this report.

## **2. Objectives**

The objectives of the meeting were to provide key pieces of information to industry, government institutions, education sector and civil society, history, objectives, structure, advantages, stakeholders, policies, information platform operation and next stages regarding EPRTR implementation.

## **3. Development**

- From 08:30 to 09:15 - participant’s registration. 67 people were registered during the event. Participants were representing main industry, government, education and civil society actors. Detailed registration is showed in the Chart 1.

**Chart 1. Detailed registration of “Ecuador Pollutant Release and Transfer Register (EPRTR) introduction” Workshop**

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- From 09:15 to 10:00: Opening session. Andrea Cararo, on behalf of UNITAR, gave a short welcome speech from Geneva, Switzerland, through a video conference, as can be seen in Photograph 1.

Later on, Jorge Jurado, the Undersecretary of Environmental Quality, explained why the importance of the meeting and important facts about the development of EPRTTR project (Photograph 2).

Finally, each participant introduced him/herself in order to know where they belong to and the role on their institutions.

**Photograph 1.** Welcome speech from Andrea Cararo from UNITAR.



**Photograph 2.** Welcome speech from Jorge Jurado Undersecretary of Environmental Quality of Ministry of Environment of Ecuador (MoE)



- From 10:00 to 11:30: Andrea Cararo explained about “Pollutant Release and Transfer Register (PRTR) introduction”, and several activities of UNITAR-PRTR Program, its applications and advantages for industry, government and civil society in general terms.

Furthermore, Andrea Cararo also presented some information about PRTR experiences in other countries such as: Canada, Chile, Mexico, Peru and the European Union.

**Photograph 3.** Workshop participants during Andrea Cararo explanation.



- From 11:30 to 12:00: Break time.
- From 12:00 to 13:00: Jenny Arias, EPRTTR national project coordinator, presented a brief EPRTTR project review about:
  - Policies and Regulations: Some regulations are related to EPRTTR, there are :
    - a) Constitution of Ecuador Republic, (R.O. No.499 of October 20, 2008); Art. 15. “The development, production, possession, commercialization, import, transport, storage and use of chemical, biological and nuclear weapons, highly toxic COPS, internationally prohibited agrochemicals, and technologies and agents are prohibited”.
    - b) International Agreements ratified by Ecuador: The Strategic Approach to International Chemicals Management (SAICM), Stockholm Convention on POPs, Rotterdam Convention, Basel Convention and Minamata Convention on Mercury. Also, the public participation and access to justice in environmental matters which will be ratified soon.
    - c) Ecuador National Development Plan of 2017-2021: National Territorial Strategy, Territorial lineament 7: Implement comprehensive management systems for environmental liabilities, solid waste, liquid discharges and atmospheric emissions, as well as toxic and dangerous waste.

- d) Organic Environmental Code, Art. 2; literal 9. Establish mechanisms that promote and encourage environmental generation of information, as well as work coordination with government institutions, industry and civil society.
- e) Ministerial Agreement No. 061 (May 2015), Art. 52 Competences.
  - The National Environmental Authority is the rector in the application of this Chapter and It will accomplish the following: ... d) Establish a Pollutant Release and Transfer Register (PRTR) to report pollutants on air, water, soil and subsoil, Also hazardous materials and wastes. Those substances will determined by the National Environmental Authority.

- o Project background:

From year 2011 to 2012:

- a) “Global Project on the Implementation of PRTR as a tool for POPs reporting, dissemination and awareness raising for Ecuador“ start and development.
- b) Design important features for Ecuador Pollutant Release and Transfer Register (EPRTR)
- c) Pollutant Release and Transfer Register (EPRTR) test report with the participation of the industry (in Excel formats)
- d) Pollutant Release and Transfer Register (EPRTR) National Executive Proposal.
- e) Dissemination of the project “Global Project on the Implementation of PRTR as a tool for POPs reporting, dissemination and awareness raising for Ecuador” for all the stakeholders.
- f) Structuring EPRTR system platform.

From year 2013 to 2015:

- a) Development of EPRTR system platform
- b) Reviews of EPRTR system platform by Sistema Único de Información Ambiental (SUIA).
- c) Linkage of EPRTR system platform with Sistema Único de Información Ambiental (SUIA) (there were difficulties in this process, so important progress could not be achieved).

From year 2016 to 2017:

- a) Restructuring of EPRTR system platform
- b) Updating project technical information
- c) Request to extend project duration and grant cooperation funds.

- Pollutant Release and Transfer Register (EPRTR) structure:
  - a) Section I. General Technical Information, where information will be reported about: Location, operation, use of raw materials and supplies, products, energy consumption.
  - b) Section II. Hazardous waste, where information will be reported about: Generation, transfer and treatment of hazardous waste.
  - c) Section III. Water, where information will be reported about: Intake, discharges (bodies of water and sewerage) and monitoring.
  - d) Section IV. Air, where information will be reported about: Atmospheric pollutants generation, machinery and equipment characteristics, ducts and chimneys, emissions and monitoring.
  - e) Section V. Emissions and Annual Transfers, where information will be reported about: Emissions and transfers of chemical substances.
  
- Project work plan and budget 2018

<b>Activities</b>	<b>Budget 2018</b>
Hire a technical specialist	\$ 6 639,22
Perform a consultancy to complement the estimations guides for the EPRTR	\$ 56 935,5
Print project dissemination material	\$ 10 000
Perform a consultancy to update an Ecuador Pollutant Release and Transfer Register (EPRTR) National Executive Proposal, phase II.	\$ 40 000
Expose events and spread activities of the project.	\$ 15 000
Develop programs and training for stakeholders in order to implement the EPRTR system platform.	\$ 10 000
<b>Total</b>	<b>\$ 138 574,72</b>

- Learned lessons
  - a) In Ecuador, the implementation of EPRTR is feasible, because exists a complementation and strengthening of legal, administrative and technical infrastructure related to environmental pollution control.
  - b) Development of EPRTR system platform test report will allow to diagnose government and users capacities.
  - c) Work with industry and civil society together, has been important pending in the implementation of the EPRTR.

- Needs and Challenges
  - a) Build capacities for identifying, collecting and analyzing information about POPs
  - b) Find and Establish techniques to estimate appropriate emission factors for emissions pollution non-point sources
  - c) Obtaining important data base of POPs through preliminary inventories and other sources
  - d) Perform a training program about technical support elements for the EPRTR system platform implementation, for stakeholders.
  - e) Standardization and comparison of data reported by industry through EPRTR system platform
  
- Next stages
  - a) Create specific regulations for implementation of EPRTR as a Ministerial Agreement, which establish a mandatory report from the second year of EPRTR system platform operation.
  - b) Emission estimation guide as a practical tool to estimate emissions of pollutants of the industry.
  - c) Spread and train about EPRTR system platform operation to all stakeholders in the country.
  
- EPRTR stakeholders benefits
  - a) Industries
    - Opportunity areas identification.
    - Establish levels of raw material.
    - Establish production rates.
    - Establish mechanisms reduce environmental pollution.
    - Implement activities to develop and apply programs for environmental pollution prevention and control and reduce risks.
  - b) Civil Society
    - Knowledge important information about: what, how much, how, where and who is emitting or transferring potential pollutants.
  - c) Government
    - Establish national and local environmental policies and regulations.
    - Promote to use less polluting substances and to look substances substitutes.
    - Get a database of pollutants, its names and address of the generating industry.

- Encourage to industries to enter a competition to reduce their pollutants emissions.

**Photograph 4.** Jenny Arias, EPRTTR national project coordinator during her intervention.



- From 13:00 to 14:00: lunch time.
- From 14:00 to 15:30: Patricio Rosero and Wenceslao Chisaguano, technical IT developers of EPRTTR system, presented information about operation, phases and development of the EPRTTR system platform about:

- Stages for building the EPRTTR online system platform

First stage: Design (realized)

- a) Information lifting
- b) Data base analysis
- c) Processes analysis
- d) Data base design

Second stage: Prototype Modelling (realized)

- a) Macroprocess Identification
- b) Prototype development

Third stage: Platform develop (realized)

- a) Request development
- b) Individual tests
- c) Settings

- Information flow for EPRTR online system platform



- Information report from users

Principal technical information list to choose by the users

1. Raw Materials
2. Sources of energy
3. Fossil fuels
4. Hazardous waste
0. Water sources
1. Residual waste
2. Pollutant gases
3. Machinery and equipment
4. Fireplaces and Pipelines

- Report areas of EPRTR online system platform

- a) **Declarations:** Users from industries have to report their productive activities from Uniform International Industrial Classification list.
- b) **Measurements:** Users from industries have to report pollutants emissions of the activities:
  - Hazardous waste
  - Water sources
  - Residual waste
  - Pollutant gases

c) Audit: Ministry of Environment of Ecuador (MoE) technicians can review all the information reported by industries users on the EPRTR online system platform

o Next stages for the EPRTR online system platform

Fourth stage: Tests (in working)

- a) Global Test
- b) System Platform operation test
- c) Settings
- d) Final user documentation

Fifth stage: System platform start up (pending)

**Photograph 5.** Patricio Rosero, EPRTR IT system developer during his exposure.



- From 15:30 to 16:00: Break time.
- From 16:00 to 17:00: Jenny Arias, provided a project summary and explanation about next stages of the project, it's detailed then:

“Global Project on the Implementation of PRTRs as a tool for POPs reporting, dissemination and awareness raising for Ecuador “ was implemented from 2011 on Ecuador, the main objective of the project is to implement a Pollutant Release and Transfer Register (PRTR), Its prove the value of the PRTR as a tool to assist this

country in accordance with the Stockholm Convention on POPs, which include 23 POPs in the list of chemicals prohibited.

From 2012 until now, this project has had important achievements:

- Design important features for Ecuador Pollutant Release and Transfer Register (EPRTR),
- Pollutant Release and Transfer Register (EPRTR) test report with the participation of the industry (in Excel formats)
- Pollutant Release and Transfer Register (EPRTR) National Executive Proposal.
- Building of EPRTR on line system platform

On line system platform, aims to report, collect, analyze and make public information about pollutant emissions and its transfer to the environment components as air and water, as well as the industrial hazardous waste generated in the entire national territory. So, all industries in Ecuador should report on line their pollutants emissions and transfer each year, some collect information will be publicized by a web page, so the population could know about where, who, how and amount of emitted and transferred pollutants to the environment.

Industries report will be mandatory from the second year of on line system platform operation, it will be established in specially regulation for it. All the information collected will be reviewed by Ministry of Environment of Ecuador (MoE) technicians, who could audit industrial activities in order to control environmental pollution in a practical way.

The project stakeholders are industries, government and civil society from all the country. EPRTR will be a tool for government to develop policies and regulations for pollution prevention and control, civil society will access to this information, and can know about the situation of Ecuador about pollution and industries can be responsible and sustainable, reducing their emissions and transfers of pollutants.

For 2018, the project propose:

- a) Finalize the construction of EPRTR on line system platform
- b) Perform an EPRTR system platform test with the participation of the industries.
- c) Update a Pollutant Release and Transfer Register (EPRTR) National Executive Proposal.
- d) Dissemination of system platform operation to all stakeholders.

#### **4. Questions, suggestions and comments made by participants during the workshop**

##### **Questions**

**a) What kind of industries will take part in the EPRTR first phase report?**

All the industries who have an environmental license will take part on it, these should be issued by the system called “Sistema Único de Información Ambiental (SUIA)” from the Ministry of Environment of Ecuador or another authorized government institution.

**b) Within how long EPRTR report will be mandatory for all the industries?**

Once the EPRTR system will be finished, all the industries must report voluntarily their pollutant emissions and transfers, during the first year of operations. Since the second year, it will be mandatory and an environmental regulation will be issued for it.

**b) What kind of legal tools will be issued to become mandatory the report on the EPRTR system?**

The obligation for reporting to the EPRTR system will be established through a ministerial agreement. Previously, we have to work with all the stakeholders.

**c) How do you will determine allowable emissions limits that would be reported on EPRTR system?**

Allowable emissions limits within the EPRTR report, will be determined according technical environmental standards and other applicable local and national environmental legislation.

**d) Will the EPRTR report consider the inclusion of Greenhouse Gases (GHG)?**

Yes, Greenhouse Gases (GHG) will be considered, but these are not regulated through national regulations, so GHG reports will be voluntary.

**e) How the system will work with municipalities which are accredited by the Ministry of Environment of Ecuador for reporting to EPRTR system, due to municipalities also issue environmental licenses, and they are capable to establish their own local standards?**

EPRTR report will consider local regulations set by Ecuadorian municipalities accredited by the MoE. Progressively, EPRTR will consider that Ecuador municipalities who are accredited can access to EPRTR system.

**f) Will EPRTR report consider emissions from mobile sources (hazardous materials transportation)?**

During the initial phases of EPRTR project, emissions from mobile sources are not considered, however, we will analyze to add the emissions from mobile sources especially from hazardous materials transportation in the future.

**g) How will the industry have to report within the EPRTR report? By issued environmental license or by emission monitoring point?**

(EPRTR) report will be reported by issued environmental license, for example a big industry can have some activities with an issued environmental license, so each activity will must report emissions and transfers of pollutants on the EPRTR system platform.

**h) (EPRTR) report will consider hazardous waste annual declaration which is established in the national environmental regulation?**

EPRTR report has a specific section where to report quantity of hazardous waste each year. It means hazardous waste annual declaration will be considered.

**Suggestions and Comments**

- a) EPRTR information system will be linked to Sistema Único de Información Ambiental (SUIA), so the operation of PRTR system should be checked frequently, thus, you can ensure that the system works correctly.
- b) The MoE have to work with private and government institutions to develop EPRTR system.
- c) The MoE will use data bases existing on private and government institutions to develop EPRTR system, for instance institutions as Servicio Ecuatoriano de Normalización (INEN) and Instituto Nacional de Estadística y Censos (INEC).
- d) EPRTR project has to analyze all the MoE activities which are related with EPRTR report to avoid the duplicity of information.
- e) EPRTR system has to link gradually the Instructions for Hazardous Chemical Substances Registration and Environmental Obligations (Acuerdo Ministerial No. 099).
- f) EPRTR project has to analyze specific cases from industry, specifying which of them have to report on EPRTR system, according to their scope and nature.
- g) EPRTR system will should take as reference the Ministry of Labor system called “Sistema de Administración Integral de Trabajo y Empleo (SAITE)”, who is collecting information about accidents and occupational diseases, in a similar way that the EPRTR system will collect the information of damage to environment areas or environmental liabilities.

**5. Recommendations and Conclusions**

The workshop “Ecuador Pollutant Release and Transfer Register (EPRTR) introduction” fulfilled its proposed objective to present to industrial sector, government institutions, education sector and civil society, relevant information about project development and progress, and the future next stages. Participants

showed their interest to the information provided, and their participation was active by making questions and suggestions, which contributed to the project development.

Additionally, several participants expressed their desire to continue participating in this kind of events, related to the implementation of EPRTR system. They also mentioned that will be alert to other activities that will be carried out, in order to achieve an inter-institutional work for making an EPRTR system user friendly.

We recommend to consider all the questions and suggestions made by the participants, because they will contribute for EPRTR project development. Having this workshop as a first experience with external actors, we consider essential to continue working with industrial sector, government institutions, education sector and civil society, in order to maintain an exchange information to report on EPRTR system. This information will be useful for all the stakeholders. EPRTR project will work intensively to analyze all the MoE activities.

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