

IMPLEMENTING A POLLUTANT AND RELEASE TRANSFER REGISTER PILOT REPORTING

2020 | Series 3

Welcome to UNITAR's Guidance Series for Implementing a National Pollutant Release and Transfer Register (PRTR) Design Project

Based on the lessons learned through ongoing activities supporting PRTR development worldwide, UNITAR has developed the following documents in a guidance series intended to facilitate the design and implementation of Pollutant Release and Transfer Registers (PRTRs):

- Implementing a National PRTR Design Project: A Guidance Document
- Series 1: Preparing a National PRTR Infrastructure Assessment
- Series 2: Designing the Key Features of a National PRTR System
- **Series 3: Implementing a PRTR Pilot Reporting**
- Series 4: Structuring a National PRTR Proposal
- Series 5: Addressing Industry Concerns Related to PRTRs
- Series 6: Guidance for Facilities on PRTR Data Estimation and Reporting
- Series 7: Guidance on Estimating Non-Point Source Emissions

To access **additional resources** on various aspects of PRTR design and implementation, see:



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List of Acronyms

CAS	Chemical Abstract Service Number
NGOs	Non-Governmental Organizations
NCT	National Coordinating Team
OECD	Organization for Economic Cooperation and Development
PRTR	Pollutant Release and Transfer Register
UNITAR	United Nations Institute for Training and Research

1 Introduction

This guide is the third in a series of supplements to the main guidance document in the UNITAR Guidance Series for Implementing a National PRTR Design Project (2020). The guidance series provides countries with a suggested step-wise approach for undertaking each stage of developing a national PRTR system. The guidance is not meant to be prescriptive and should be adapted by countries in a flexible manner according to their specific needs and circumstances.

The 6 suggested stages of a national PRTR design project are the following:

1. Identifying the Goals of the National PRTR System
2. Assessing the Existing Infrastructure Relevant to a National PRTR
3. Designing the Key Features of a National PRTR System
4. **Conducting a PRTR Pilot Reporting**
5. Finalizing the National PRTR Proposal
6. Organizing a National PRTR Implementation Workshop

This document provides specific guidance on carrying out Stage 4 of the suggested PRTR design process. It identifies and addresses the issues and challenges associated with conducting a PRTR pilot reporting, the goals of which are to test the preliminary design of the national PRTR system and to obtain practical feedback for finalizing the national PRTR proposal.

WHY CONDUCT A PRTR PILOT REPORTING?



2 Why Conduct a PRTR Pilot Reporting ?

The purpose of conducting a PRTR pilot reporting is to test the PRTR system on a limited scale in order to gain practical experience with and assure the quality of the national PRTR system. In most cases a pilot reporting trial is undertaken to test and refine the preliminary design of the national PRTR system after the initial specifications have been developed by the National Coordinating Team (NCT), and to test the reporting system and data collection procedures. This guide is intended to assist countries that are implementing a PRTR pilot reporting after the preliminary specifications for the key features of the PRTR system have been developed under Stage 3: Designing Key Features of a National PRTR System.

The results of the pilot reporting trial should be documented. The results are valuable input for the NCT to improve the design of the PRTR system and can help predict the level of human, organizational, and financial resources that will be required to operate the system on a national scale. In addition, the data collected during the reporting trial provides an opportunity to test the quality of reported data and suitability of PRTR data for a range of intended end uses.

The design elements to be tested through a PRTR pilot reporting include the following:



The list of chemical substances subject to reporting



The reporting formats and data collection process



The guidance materials provided to industry to assist their reporting of PRTR data (e.g. reporting instructions and data estimation manuals)



The PRTR software, data flow, data validation and database infrastructure

A PRTR pilot reporting may also provide practical insights into important operational and resource management issues related to the PRTR system. These include:

The level of assistance required by industrial facilities to meet their reporting requirements (or obligations)

The level of cooperation that can be expected from industry during national implementation;


The type of outreach strategy that government authorities should use to inform industry of reporting requirements and procedures

The coordination mechanisms among the various government agencies and levels of government that are involved in the operation of a PRTR reporting cycle; and

The anticipated operating costs for both government and industry to run a national PRTR system.

The experiences of countries that have undertaken PRTR reporting trials indicate that a PRTR trial can be a very important part of a national PRTR design project.

A carefully implemented and evaluated trial could lead to the following outcomes:



Development and delivery of appropriate training of government personnel to ensure adequate capabilities for successful management and operation of the PRTR system;

Finalization of the required PRTR data collection and management infrastructure and procedures (online reporting system, database, and instructions, etc.) so that the system is user friendly;

Analysis of a concrete sample of PRTR data to test the policy applications planned for the national PRTR system; and

Initiation of cooperative relationships with industry geared towards transparency and more responsible environmental management.

INITIATING A PRTR PILOT REPORTING



3 Initiating a PRTR Pilot Reporting

The National Coordinating Team is the entity responsible for initiating, planning and overseeing the implementation of the PRTR pilot reporting. Several planning and strategic considerations should be taken into account by the NCT before starting this exercise. These considerations concern the selection of the scope of the pilot (e.g., a geographic region, industry sector, or representative sample) and the timing of the pilot in relation to the development and launch of the national PRTR design effort.

3.1 Selecting the Pilot Reporting Trial Region or National Sample

In most cases, countries will decide to conduct their pilot reporting trials on a geographic basis, such as within a specific region or area. However, another option is to utilize a national sample of reporters from selected industries throughout the country. The decision between these two approaches will depend on the objectives of the pilot reporting trial, the objectives of the national PRTR system, the gaps between current information infrastructure and the needs of the PRTR, as well as other factors such as the size of the country and the geographic distribution of industrial facilities and other emissions sources.

In selecting an appropriate region in which to run a regionally-based PRTR pilot reporting, there are several elements to consider including the types and diversity of industries in the region, the degree to which specific chemicals of interest are used in the region, and the capacities of local or regional authorities to assist with outreach, data collection and other operational roles involved in carrying out a successful reporting trial.

Ideally, the selected region would have the following characteristics:

- Contains a representative, limited-sized sample of industries;
- Existence of good relationships between local/regional authorities and the central government;
- Existence of good relationships and cooperation between the local /regional authorities and local industries;
- Environmental policies at the regional level that are in line with the objectives of the PRTR system; and
- Adequate regional capacities and budgetary resources to support the pilot reporting trial activities.

3.2 Securing Policy Commitment

The undertaking of a PRTR reporting trial has the potential to be a politically sensitive issue. Because of this sensitivity, an important precondition for a successful PRTR pilot reporting is the support of high-level national authorities, as well as the commitment of the local authorities and industries in the region where the reporting trial will be held. A number of industries will be asked to estimate and report their emissions for the first time. Operation of the PRTR reporting trial also requires that central and regional authorities work together in new ways and perform functions for which they may not have prior experience.

To meet these challenges and to ensure a successful pilot reporting trial, the National Coordinating Team should take the necessary steps to secure adequate policy support and commitment from relevant decision-makers prior to embarking on the exercise. By communicating the goals of the reporting trial to the various parties involved, informing them in advance of planned activities, and anticipating their likely concerns, the NCT can help prevent opposition and criticism by groups that initially may be opposed to the national PRTR initiative.

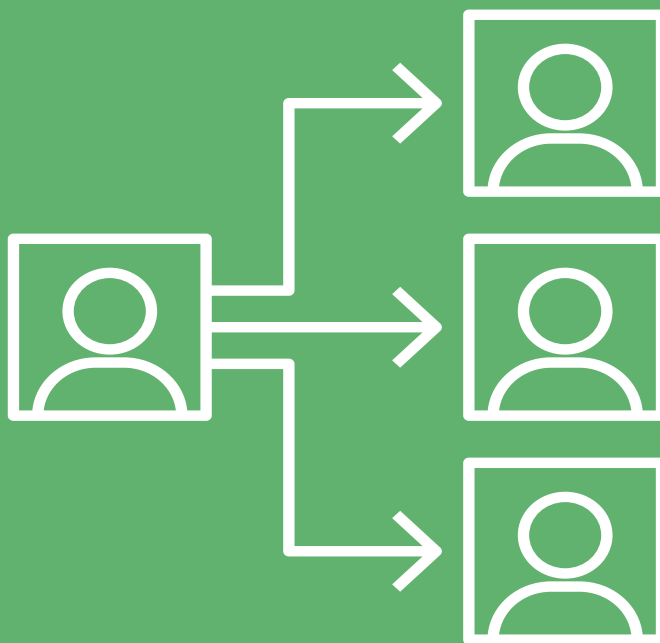
A useful strategy for building policy commitments is to conduct individual meetings or small seminars with the leaders of the various government agencies and other stakeholder groups involved in the pilot reporting trial. This outreach should make clear specific opportunities that the PRTR could offer to each stakeholder group and the potential linkages to local, national, and international environmental management initiatives.

Establishing a cooperative relationship with participating industries is another important prerequisite for a successful pilot reporting trial. Capacity building activities that foster basic PRTR knowledge, development of a clear communication strategy, and provision of free trainings on the different release estimation techniques are considered to be crucial in this regard. Moreover, industry representatives and industrial associations who are members of the National Coordinating Team should be actively involved in laying the necessary groundwork for a collaborative relationship between government and industry in carrying out the pilot reporting trial.

3.3 Timing of the pilot reporting trial

The timing of the PRTR pilot reporting in relation to the overall national PRTR design process is another important consideration. As mentioned before, a reporting trial is typically conducted to test the National Coordinating Team's preliminary design for the PRTR system, therefore, the trial should be conducted towards the end of the PRTR design project. It is very important that both the technical capabilities and political climate are favourable when the reporting trial is conducted. If so, the reporting trial will serve both a quality assurance function and will be a proof of concept for the national PRTR.

IDENTIFYING ROLES AND RESPONSIBILITIES



4 Identifying Roles and Responsibilities

The PRTR pilot reporting will involve several stakeholder groups. These include the central and local governmental authorities and agencies that are directly involved in operating the reporting trial, the participating industries, and other parties that have an interest in the pilot results, the PRTR programme, and those involved with using PRTR data and communication and liaison activities (e.g., non-governmental organizations (NGOs) and industry associations). With the involvement of these diverse groups, a clear assignment of responsibilities and effective coordination is essential.

It is suggested that the National Coordinating Team appoint a pilot reporting trial manager and working group to carry out the detailed organization and daily management of the PRTR reporting trial. The NCT may decide that organizing a regional coordinating group may also be necessary to facilitate coordination between central and local authorities during the pilot. The following are brief descriptions of the suggested roles and responsibilities of each of these organizations.

4.1 The National Coordinating Team

The National Coordinating Team is the entity responsible for overseeing all activities in the development of the national PRTR system, including the pilot reporting trial. The NCT should maintain close communication with all governmental and non-governmental parties involved in the reporting trial.

Upon completion of the pilot reporting trial, the NCT should gather all pertinent recommendations and feedback and undertake a comprehensive evaluation in order to inform work on the national PRTR design. Sound understanding and use of the lessons learned from the pilot reporting trial by the NCT will depend on the active participation of the NCT throughout the pilot.

4.2 The Pilot Reporting Trial Manager and Working Group

The appointed pilot reporting trial manager should be someone with sufficient authority to keep the various actors working together according to the agreed upon responsibilities and schedule and to resolve issues that may cut across government agencies. The project coordinator, or another appropriate person from within the agency that is serving as the National Coordinator for the overall PRTR design project, may be a logical candidate to lead the pilot.

Tasks that the pilot trial manager will need to coordinate might include:

- Ensuring that all preparatory technical work is completed including specification of the chemicals list and development of the reporting system and reporting instructions, etc.;
- Developing clear timelines: when the infrastructure will be tested, launched; reporting deadlines; data quality period; publication dates;
- Developing an evaluation plan that specifies measured activities, outcomes, and individual/organizational responsibilities;
- Establishing a website (or area of the PRTR website, if one has been developed) as a repository of information (e.g., reporting instructions and guidance) for industry sectors involved in the trial;
- Establishing a clear communication strategy with industry;
- Organizing training for government personnel;
- Organizing an informational workshop for participating industries;
- Organizing training for each reporting sector (e.g. chemicals, energy, manufacturing, etc.)
- Supervising all aspects of data collection and management;
- Supervising the validation and analysis of the collected data; and
- Evaluating the pilot reporting trial and providing feedback to the NCT.

A special working group should be designated to assist the pilot reporting trial manager in completing these tasks.

4.3 The Regional Coordinating Group

The National Coordinating Team and pilot reporting trial manager may decide that a regional coordinating group is needed to ensure successful operation of the pilot reporting trial. This group

would likely be comprised of representatives from local government, industry and NGOs in the region of study. Factors such as the organizational relationship between the central, regional and/or local levels of government and the physical distance between the reporting trial region and central government offices may influence the decision of whether a regional coordinating group is needed.

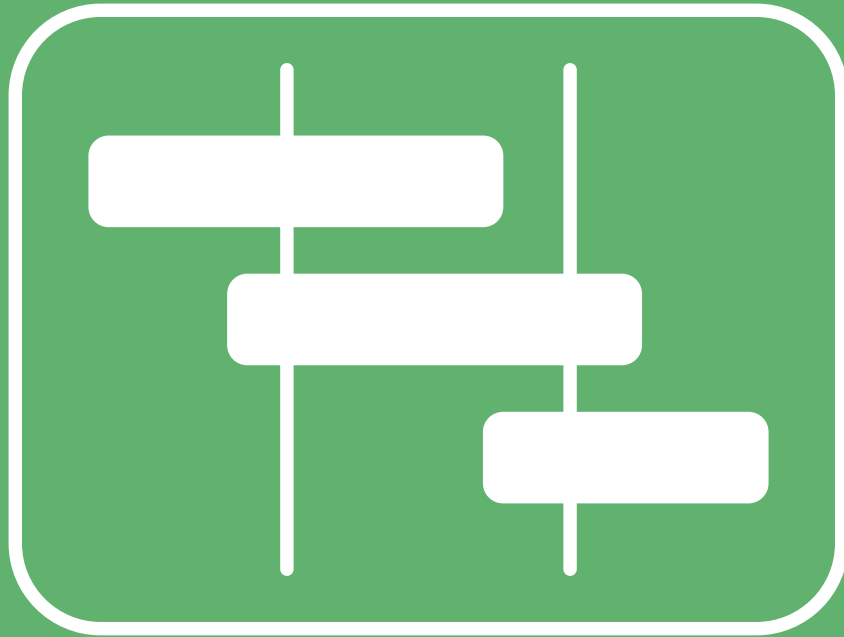
The following are tasks that might best be undertaken at the regional level:

- Approaching local industries and ensuring their cooperation;
- Selecting local government personnel for pilot reporting trial operation;
- Maintaining coordination with the central authorities;
- Directing industry to the online instructions and guidance materials;
- Providing assistance to reporting facilities through training activities on data estimation and submission of their data; and
- Providing ongoing and post-pilot feedback to the NCT.



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DEVELOPING A WORK PLAN

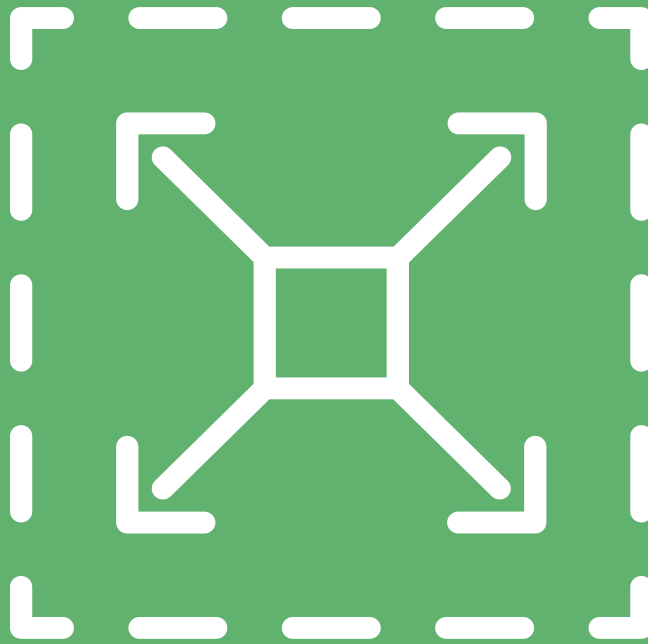


5 Developing a Work Plan

Among the first tasks to be undertaken by the pilot reporting trial manager and working group, through consultation with the NCT, is to develop a work plan, laying out in detail the time frame for each of the tasks and activities to be completed within the context of the PRTR pilot reporting. A comprehensive work plan with realistic time frames can be instrumental in keeping the process moving forward and for ensuring that involved parties complete the tasks for which they are responsible in a timely manner. Figure 1 provides a sample work plan, which countries may wish to adapt to fit their particular needs.

Components	Months										
	Activities	1	2	3	4	5	6	7	8	9	10
Planning Phase	Selection of the pilot trial region										
	Obtain policy commitment										
	Develop evaluation plan										
Preparatory Activities	Select industry sample										
	Select chemicals list										
	Define data elements to be collected										
	Develop the reporting system and instructions										
	If reporting will be web-based, test the reporting system and database										
	Develop and maintain the PRTR website										
Implementation Activities	Govt. staff training workshop										
	Industry training session										
	Operate industry assistance services										
	Data collection										
Analysis and Evaluation Activities	Analysis of data and demonstration of applications										
	Evaluation of pilot trial										

DEFINING THE SCOPE OF THE PRTR PILOT REPORTING



6 Defining the Scope of the PRTR Pilot Reporting

In defining the scope of the pilot trial, the NCT must make decisions regarding the size of the industry sample and study region, the amount of information to be collected from participating facilities, and whether the trial will be conducted with a complete or reduced version of the intended national PRTR system. In making decisions regarding the scope of the pilot reporting trial, considerations regarding the amount of human and other resources that will be required should be taken into account.

Several factors will affect the amount of effort and resources involved in a pilot reporting trial in addition to the geographic size of the study area the number of reporting industries and the depth to which the various technical aspects of the system will be tested, including:

Whether the participation of the reporting industries will be voluntary or mandatory, and the approach to be used by government in ensuring participation, e.g., outreach or enforcement actions, etc.;

The level of training that the participating industries will need in order to report PRTR data accurately and efficiently; and

The types of analyses to be performed and the other intended uses of the collected data.

6.1 Selecting the Reporting Facilities

A manageable sample size will increase the likelihood of a successful PRTR pilot reporting. Trying to cover too many industries or too large an area can compromise the success of the exercise. In deciding on the sample size, it should be recognized that the participating industries will be reporting PRTR data for the first time and may require significant support and guidance. A manageable sample size will ensure sufficient training can be conducted, and that follow-up can be carried out with all of the facilities that participate.

The chosen sample size should be sufficiently representative to provide practical experience with the potential challenges to be encountered when implementing the system on a national scale. To be representative, the sample size needs to include companies of different sizes as well as from different industrial sectors. Experiences from other pilot trials have shown that samples of 40 to 150 industrial facilities can provide credible tests of the information architecture, produce meaningful analytical results, and allow for human intervention and support if a PRTR infrastructure or process is not yet developed or fails during the pilot.

Parameters that might be considered in choosing a representative sample of industrial facilities for the pilot reporting trial include:

- Production, use or releases of one or more of the listed chemicals;
- Facility size;
- Industrial activities or production processes used;
- Directing industry to the online instructions and guidance materials;
- Types of wastes generated; and
- Other information that might be captured in existing reporting and permitting schemes.

Statistics describing the industry, potential PRTR reporters and their locations, and current environmental reporting data are commonly available from other governmental ministries and can aid in the selection of facilities. The willingness of the facilities to participate in the pilot trial may also be a consideration, particularly if reporting will be voluntary.

6.2 Selecting the Chemicals List

The list of chemicals should be chosen to track substances of interest in the pilot region and to provide enough data to conduct relevant analyses in order to test the policy applications planned for the PRTR system. For the pilot reporting trial, the list of chemicals designated by the NCT as reportable to the national PRTR, or a subset of it, can be used. If a national PRTR chemical list has not yet been developed, the OECD harmonised list of PRTR chemicals could be used.

6.3 Defining the Data Elements to be Collected

The selection of data elements to be collected during the PRTR pilot reporting also should be made according to the types of analyses and applications intended for the PRTR data. A trade-off exists between making reporting as simple as possible and collecting information of sufficient value and detail to support the full range of PRTR data uses and applications.

A set of core data elements should always be present in a PRTR report, including the identification of the source or facility (including its geographic location and industry sector), the identity of the chemical substance(s) (e.g., Chemical Abstracts Service (CAS) number) and estimated (annual) emissions to the various environmental media (i.e. air, water, land). However, a number of additional data elements could also be collected during the pilot reporting trial depending on the objectives and analyses that PRTR stakeholders would like to perform. Such data elements could include, for example, information on: recycling; levels of chemical use; amount of chemical stored on site; emissions reduction methods in place; energy and water use; the amount of chemicals that end up in the final product; or details on waste disposal methods. Reviewing data elements collected by existing PRTRs can provide ideas on additional data elements of value.



REQUIRED INFRASTRUCTURE FOR THE PRTR PILOT REPORTING



7 Required Infrastructure for the PRTR Pilot Reporting

The PRTR pilot reporting should test all technical, administrative and operational aspects of the PRTR system. For this purpose, it is recommended that the PRTR elements tested in the pilot trial closely resemble the version intended for use at the national level. This will ensure that the pilot trial experiences will be of direct relevance to the national PRTR design.

The necessary infrastructure for conducting the pilot reporting trial includes developing: the reporting system where facilities will submit their data; the database for storing the data received; and instructions and guidance material that will be used during trainings to help industries estimate emissions. The particular features of each of these technical elements should be decided by the National Coordinating Team and will vary from country to country depending on the current infrastructure already in place and the objectives of the national PRTR system.

7.1 Development of the Reporting System and Database

To the extent possible, the reporting system used for the reporting trial should be a version of the system developed by the NCT for the national PRTR. Testing the user interface and technical functionality of the system will be a key output of the trial and this information will inform the improvements needed prior to launching the national PRTR. There are a variety of mechanisms for collecting PRTR data from point sources, including Excel spreadsheets with a defined format and user interface submitted to the PRTR program, and web-based reporting. These mechanisms vary in terms of required resources. Paper forms used in the past and no longer used for newly implemented PRTRs. Whenever feasible, it is preferable to develop and use web-based electronic systems, as they can 1) save considerable resources and time for both the regulated community and the PRTR programme through more efficient data processing; 2) improve data quality through embedded data validation checks and avoidance of data entry errors caused by responsible agency staff misreading or mistyping reported information; and 3) enable faster dissemination of the data to end-users. Developing and using the web-based reporting system in the PRTR reporting trial will provide valuable input on finalizing the design and functionality of the system prior to a national launch.

Facilities participating in the reporting trial will register users and then log into the reporting system to enter or upload the data for their facility on releases, transfers, and all other required data elements. The system should include embedded data quality checks and alerts, as well as links to guidance and instructions. Reporting trial participants should be asked to provide feedback on the reporting system including on the user interface, the clarity and comprehensiveness of instructions, and the efficacy of the embedded data quality checks. In addition to the reporting system, the reporting trial will also need to establish a database linked to the reporting system for receipt of the submitted data. Through the pilot, the NCT will test the functionality of the data submittal

process, the communication with the submitting facilities, and the structure of the database to facilitate subsequent data aggregation and analyses.

During the infrastructure assessment and design of the PRTR (Stages 2 and 3 of the UNITAR PRTR design framework), the NCT will consider whether to develop a stand-alone system or to expand on an existing reporting system in the country. In either case, investigating the approaches taken by other countries for PRTR implementation may help to inform the decision.

7.2 Preparation of Instructions and Guidance

The reporting instructions provided to industry should be as simple as possible so that facilities will be able to estimate their releases and transfers and complete the reporting process with a minimum of assistance. All instructions and guidance should be available online in a searchable, downloadable format such as a PDF. For the online reporting system, consider short videos with screen captures demonstrating use of the system. All terms such as units of measurement, releases, discharges, and emissions should be carefully defined according to local usage.



Picture by Christina Morillo

HUMAN RESOURCES AND TRAINING



8 Human Resources and Training

8.1 Responsibilities of Government Staff

Government personnel tasked with supporting the pilot, PRTR development, and PRTR reporting will need to be identified and sufficiently trained to handle all the operational aspects of the PRTR system during the pilot reporting trial. Their technical knowledge should cover all aspects of a PRTR reporting cycle including data estimation, online/electronic reporting system, data quality review, management and analysis procedures. While data validation will be embedded into reporting process, government personnel will also review submitted data to identify outlier values that may be erroneous (e.g., a facility using the incorrect units). In addition to these operational aspects, it is important that the government staff who will be interacting with the industries be prepared to handle industry questions and provide adequate assistance. Government staff will be expected to assist participating industries in two areas: correctly estimating quantities and submitting reports by providing training workshops on release estimation techniques and how to use the online reporting system.

8.2 Organizing a Training Workshop for Government Personnel

Training workshops are one way to prepare government staff for their roles during implementation of the pilot reporting trial. The scope and content of the training workshop will depend on the number of government staff, levels of government, and number of agencies involved in the pilot reporting trial. Such a workshop should introduce data estimation and reporting techniques, which will help government personnel address industry questions and concerns. The workshop should also ensure that the government personnel who will be directly involved in implementing the pilot trial have the necessary skills and knowledge to handle the operational aspects of the PRTR system, including data collection, management and analysis.



Picture by Christina Morillo

ENSURING SUCCESSFUL PARTICIPATION OF INDUSTRY



9 Ensuring Successful Participation of Industry

9.1 Managing the Relationship with Reporting Industries

Establishing a cooperative relationship with industry during the pilot reporting trial can be critical to the success of both the reporting trial and the larger national PRTR effort. Governmental authorities should avoid a command and control approach and concentrate instead in working alongside industry with the common goal of collecting reliable PRTR data to meet the PRTR objectives. The concerns expressed by industry regarding the development of the PRTR system or during planning for the pilot reporting trial should be taken into account and efforts should be made to make reporting as simple as possible to avoid the perception of PRTR reporting as a burdensome requirement. Creating a good working relationship with industry during the pilot phase can set a good precedent for obtaining private sector support for the larger national PRTR initiative.

During the implementation of the pilot reporting trial, all details pertaining to the pilot trial should be clearly communicated to the facilities that will be taking part, including the purpose of the exercise and clear instructions on estimating and reporting the data.

9.2 Providing Training to Participating Industries

Conducting free training for industry participants is critical to ensure a good understanding of the goals of the PRTR pilot trial, the estimation techniques, and the report preparation and submittal process. The workshop can be used to walk industry through the reporting process, demonstrate the online reporting system, and familiarize participants with the instructions and guidance material available. Specific guidance on methodologies for estimating chemical emissions should be provided during the training. With good coverage and clear guidance, the trainings may succeed in addressing many industry questions prior to the actual reporting of data. Holding effective training for industries can help minimize the assistance services required later on.



Picture by Anamul Rezwan

The trainings should include a hands-on exercise during which industry representatives would estimate emissions and complete a sample PRTR report. This exercise could be useful for bringing forth and addressing questions on the specifics of estimating and reporting PRTR data correctly. Facilities of the same industrial sector could be asked to form groups and complete a report together. Questions or problems faced by participants during this exercise could then be raised and addressed by government officials during the training sessions.

9.3 Assistance and Support Services for Reporting Industries

Providing assistance and support to industry during the course of the pilot reporting trial is likely to be necessary to address industry questions regarding data estimation and report preparation and to ensure correct reporting of PRTR data. The type of assistance services to be provided should be decided by the National Coordinating Team based on anticipated needs.

Some possible assistance and support services to consider include: establishing a telephone hotline or online helpdesk to answer questions on the reporting procedure; having government staff in the field to provide direct assistance to reporting facilities; and/or appointing technical staff from a regional office to address industry concerns via fax or through direct consultation.



Picture by Anamul Rezwan

EVALUATING THE RESULTS OF THE PRTR PILOT REPORTING



10 [—] Evaluating the Results of the PRTR Pilot Reporting

10.1 Evaluation of the Pilot Trial Experience

All feedback and recommendations arising from the pilot reporting trial should be consolidated in the evaluation report for the National Coordinating Team as the overseeing entity in charge of completing the national PRTR proposal. The evaluation plan developed at the beginning of the pilot reporting trial, should identify how performance of each element of the pilot will be evaluated and measures for which information may need to be collected during or following the pilot. In addition, the NCT should be an active observer of the pilot trial process from the start and should record observations that will be incorporated into the evaluation report. Similarly, those national authorities and industries involved in the different phases of the reporting trial could be called upon to provide their perspectives and recommendations for the NCT based on their experiences with the reporting trial.

The NCT should undertake this comprehensive evaluation in a manner that it considers most appropriate depending on the number of agencies involved and the particular way in which the pilot trial has been conducted. One possibility is to request that the authorities in charge of operating the pilot trial prepare written reports and recommendations. Another way of gathering these groups' feedback is to conduct interviews with personnel from each organization participating in the trial, including government personnel and individuals at the facilities reporting during the pilot reporting trial. Given contact information will have been collected, a web-based survey of participating industries is a feasible means for collecting feedback and recommendations from industry. A combination of a few options is probably ideal for a comprehensive evaluation.

10.2 Analysis of Collected Data and Planned Applications

The second component of the analysis/evaluation stage is to assess the data collected during the pilot reporting trial to determine its quality and how well it serves the specific policy applications planned for the national PRTR system. The pilot trial can help identify which of the planned end uses of the PRTR data are realistic and which are beyond current national capacities. Based on these preliminary analyses, the NCT may be able to revise the PRTR design to better meet the key national objectives.

When planning the analyses to conduct, it is critical to the success of the PRTR to consider how the data will be presented and made available to both expert users and the public. Aggregating the data in ways that are intuitive and meaningful to the public will facilitate use and understanding of the information, even for data users without a technical background. Countries with existing PRTRs have found that the types of data presentations that promote understanding include using an

interactive map to illustrate the locations where releases and transfers occur and aggregating the data by industrial sectors and pollutants. Also consider adding contextual information to the data presented such as explanations on the reporting thresholds, toxicity of pollutants, and economic activity by sector in the country.

While the pilot provides data from one point in time, think ahead to when data will be available from the implemented PRTR to present trends over time. Consider data trends presented by media, by sector, by pollutant, and by geographic area. Other PRTRs typically see a decreasing trend in aggregated emissions, especially in point sources as industry becomes more aware of the type and magnitude of their releases through their PRTR reporting requirements and/or governments leverage the PRTR programme in support of source and emission reductions.

The NCT may wish to consider appointing working groups to take the data collected during the pilot and run prototype demonstrations of the uses and applications that have been planned for the national PRTR system. These concrete exercises with actual data will enable the NCT to develop a realistic and cost efficient PRTR information products tailored to national needs and conditions.

Some of the PRTR analyses that might be considered include:

Aggregating pollution burdens for geographic or political regions by chemical substance and by industry sector;

Developing a baseline from which to measure future trends and responses to policy actions;

Aggregating total pollutant discharges to a particular watershed or air shed;

Displaying pollutant sources by presenting PRTR data in an interactive map with the capability to drill down to the regional and local level;

Providing contextual information such as the relative toxicity of the chemicals reported, or the economic activity of sectors in the country; and

Any other type of analysis that might be of interest for public dissemination and regional environmental management.

While these preliminary analyses may give a good indication of whether or not the planned applications for the PRTR data are feasible and what resources will be required to produce similar analyses for the national PRTR, the NCT should bear in mind that the data collected during this first round of reporting might not be reliable. Thus, the NCT should exercise caution in using the data for anything other than demonstration purposes.

10.3 Incorporating the Lessons Learned into the National PRTR Design Project

The feedback obtained through the pilot reporting trial experience will aid the NCT in refining the design of the PRTR system and completing the national PRTR proposal. The practical experiences and lessons learned through the pilot trial will reveal problems early on and enable the NCT to adjust the PRTR design and implementation strategy accordingly, prior to implementation on a national scale. The results of the pilot reporting trial also provide an opportunity for demonstrating to decision-makers and other interested parties the potential benefits and uses of a national PRTR system.

Sources

Icons:

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- Page 10 - Bar chart icon by Creative Stall from the Noun Project
- Page 13 - Organizational chart icon by Juan Pablo Bravo from the Noun Project
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