Original: English

UNITAR Guidance Series for Implementing a National PRTR Design Project

Implementing a National PRTR Design Project

A Guidance Document

July 1997

UNITAR

IOMC

INTER-ORGANIZATION PROGRAMME FOR THE SOUND MANAGEMENT OF CHEMICALS

A cooperative agreement among UNEP, ILO, FAO, WHO, UNIDO, UNITAR and OECD

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

Complementary to the OECD *Guidance Manual for Governments* and based on the lessons learned through pilot initiatives in Mexico, the Czech Republic and Egypt, UNITAR has developed the following documents in a guidance series intended to assist countries in undertaking a national PRTR design project:

- Implementing a National PRTR Design Project: A Guidance Document
- Supplement 1: Preparing a National PRTR Infrastructure Assessment
- Supplement 2: Designing the Key Features of a National PRTR System
- Supplement 3: Implementing a PRTR Pilot Reporting Trial
- Supplement 4: Structuring a National PRTR Proposal

Additional documents, including technical support and general reference materials on various aspects of PRTR design and implementation, are also available from UNITAR.

This document has been prepared in the context of UNITAR's *Training and Capacity Building Programme to Facilitate the Design and Implementation of National Pollutant Release and Transfer Registers (PRTRs)*, which is financially supported by the U.S. Environmental Protection Agency.

For additional information please contact:

Training and Capacity Building Programmes in Chemicals Management
United Nations Institute for Training and Research (UNITAR)
Palais des Nations
CH-1211 GENEVE 10
Switzerland
FAX +41 22 917 8047
EMAIL: cwm@unitar.org
WEBSITE: www.unitar.org/cwm

97D008

Table of Contents

Introduction to the Guidance Document

Following the 1992 United Nations Conference on the Environment and Development (UNCED) and the adoption of Agenda 21, there has been increased interest among the international community and individual governments towards the establishment of national Pollutant Release and Transfer Registers (PRTRs) as a means for improving environmental management at the national level. In 1994, the Organization for Economic Cooperation and Development (OECD) began work on a guidance manual to assist governments in establishing PRTRs. This *Guidance Manual for Governments* was published in 1996 and has become a major international reference on PRTRs.

In a parallel effort, UNITAR, in cooperation with OECD, the World Health Organization (WHO), the United Nations Environment Programme (UNEP) and the United Nations Industrial Development Organization (UNIDO), has focused on reaching out to developing and industrializing countries with the goal of exploring the feasibility of introducing PRTRs in these countries as an effective environmental management tool. Toward this end, UNITAR initiated country-based pilot studies in the Czech Republic, Egypt and Mexico to gain practical experience with the opportunities and challenges of establishing national PRTR systems in industrializing and developing countries, and to develop training and guidance materials on specific aspects of PRTR design and implementation.

Preliminary results gained through the UNITAR PRTR pilot projects suggest that national PRTRs are indeed a promising environmental management tool for industrializing and developing countries. As the process of developing a national PRTR system has unfolded in the three pilot countries, the experiences and lessons learned have been used by UNITAR to develop a generic and comprehensive training and capacity building programme designed to meet the needs of developing and/or industrializing countries interested in pursuing a national PRTR programme. Through this *Programme to Facilitate the Design and Implementation of National PRTRs*, UNITAR offers guidance materials, informational and technical assistance, on-site services and other means of support, subject to availability of resources, to meet the needs and circumstances of individual partner countries throughout the process of developing a national PRTR.

This Guidance Document is the core of the *UNITAR Guidance Series for Implementing a National PRTR Design Project*. The UNITAR Guidance Series, which is comprised of the present document and four supplements, has been developed to assist countries in implementing a national Pollutant Release and Transfer Register (PRTR) design project. It builds on the substantive and technical information contained in the OECD *Guidance Manual for Governments* by providing countries with a suggested step-wise approach for undertaking the design of a national PRTR system.

Part A of the Guidance Document provides an introduction to the PRTR concept and the potential benefits it offers to government, industry and the public; an overview of the international policy framework and activities of international organizations related to PRTRs; and brief descriptions of national PRTR programmes that are currently in existence or under development.

Part B provides suggestions on how countries might organize the process of designing a national PRTR system. A key element of this process is the involvement of all concerned parties, both within and outside of government, to ensure that the national PRTR system will

meet intended national objectives and the needs of affected and interested parties at the national level.

Part C provides guidance on various key stages of the national PRTR design process. For each stage, an overview of activities and issues to be addressed is presented, including the main objective, key tasks involved, guidance questions, and expected outputs. Part C also includes references to supplementary documents that address specific stages of the national PRTR design process in more depth.

PART A: Introduction to PRTRs and Relevant National and International Activities

What is a Pollutant Release and Transfer Register (PRTR)?

A Pollutant Release and Transfer Register (PRTR) is a catalogue or database of releases and transfers of potentially harmful chemicals including information on the nature and quantity of such releases and transfers. The data for PRTRs can be collected from point sources of pollution, such as factories, as well as from diffuse sources, such as agricultural operations or transportation activities. A PRTR usually covers releases to air, water and land as well as wastes transported to treatment and disposal sites.

Key features of a PRTR include: periodic collection of information to allow tracking of trends over time; the use of common identifiers for chemicals, facilities and locations to facilitate comparison and aggregation of the data; computerization of the information for ease of analysis; and dissemination of the information to government policy makers and the general public. Some potential applications of PRTR information include mapping the data to discern the proximity of pollution sources to population centres or to ecologically sensitive areas, as a way of highlighting potential health or environmental impacts and effectively targeting management efforts. Trends in the data can reveal the progress being made by individual facilities or industrial sectors in reducing waste and minimizing pollution, or for identifying opportunities for improvement.

To summarize, a PRTR is a means for obtaining regular, periodic information about releases and/or transfers of chemical substances of interest and for making this information accessible to those who may be interested and/or affected by it. As such, a PRTR is a tool for promoting efficient and effective policies for environmental protection and sustainable development.

1. INTRODUCTION

This part of the guidance document provides an introduction to the concept of PRTRs and their potential benefits to government, industry and the public. An overview of the international policy framework for PRTRs and a summary of the activities of international organizations related to PRTRs are also provided. Selected national PRTR systems that are currently in existence or under development are described to illustrate how PRTR systems have been adapted to meet the specific needs and circumstances of individual countries.

2. BACKGROUND ON PRTRS [1]

Rapid industrial development in several regions of the world has led to significant increases in production of chemicals and to growing numbers of industrial facilities which require chemicals as raw materials or intermediates. This has resulted in increased levels of chemical emissions to air and water as well as high volumes of hazardous waste generation. In many countries, governments, communities and workers are not aware of these emissions and the associated risks to human health and the environment.

To address these problems, several industrialized countries have introduced chemical emission inventories or what are now referred to internationally as *Pollutant Release and Transfer Registers (PRTRs)*. A PRTR is a catalogue or register of releases and transfers of potentially harmful chemicals and includes information on the nature and quantity of such releases and transfers. The data for PRTRs can be taken from point sources of pollution, such as factories, as well as from diffuse sources, such as agricultural operations or transportation activities. They include information about releases to air, water and land as well as wastes transported to disposal sites. A key feature of a PRTR is that it includes information about specific chemical species such as benzene or mercury rather than broad categories of pollution such as volatile organic compounds, greenhouse gases, or heavy metals.

An integral part of a PRTR scheme is that the collected information is made available to all interested parties. This requires the PRTR to be both comprehensive and easily understandable. Through active dissemination of the data, the awareness of workers and communities about potential chemical risks can be raised. This can serve as an important basis for constructive dialogue and programmes to promote the reduction of risks associated with chemical hazards.

3. BENEFITS OF PRTRS TO GOVERNMENT, INDUSTRY, AND THE PUBLIC

One of the reasons for the success of PRTR systems is that they entail benefits and possible uses not only for governments, but also for the reporting industries and members of the public. For example, PRTRs provide government authorities with useful data for setting environmental management priorities, enhance knowledge within industry about inefficient

[1] Sections 2 and 3 draw upon, *inter alia*, Chapter 1 of OECD, *Pollutant Release and Transfer Registers (PRTRs): A Tool for Environmental Policy and Sustainable Development: Guidance Manual for Governments*. Paris, 1996

and wasteful production processes, raise public awareness about potentially toxic releases, and increase the ability of all stakeholders to participate in environmental decision-making.

The following are some of the possible uses and benefits of PRTRs from the perspective of three main user groups: government, industry and the public.

Benefits to Government

A PRTR provides comprehensive information to assist governments in addressing questions such as: Who is generating potentially harmful chemical releases? What pollutants are being released? How much is being released and over what time period? To what environmental media are pollutants being released and how much of each substance is going to air, water or land? What is the geographic distribution of the pollutant emissions?

By providing such information, a PRTR can considerably improve the capability of government to meet important environmental management objectives. These objectives may include:

- measuring national progress toward risk reduction and pollution prevention goals;
- rationalizing and integrating existing media-specific pollution reporting requirements;
- identifying geographic areas of concern ("hot spots");
- tracking trends in chemical-specific emissions;
- targeting specific chemicals of concern for risk reduction, use reduction or phase-out;
- monitoring enforcement of current regulations;
- providing information to all interested parties; and
- fulfilling international reporting requirements under various international conventions and agreements.

Benefits to Industry

Even in the absence of mandatory reporting requirements set by governments, some companies have initiated environmental reporting schemes that provide pollutant inventory information to the public. Company managers have discovered that emissions are not just a possible pollution problem, but also a source of lost revenue. Many companies have reported significant cost savings as a result of cleaner production initiatives and from the use of recycled materials previously considered to be wastes. As a consequence of systematic collection of data on emissions at the source, companies have initiated changes such as the use of alternative chemicals, improved chemical use controls, increased equipment efficiency, improved manufacturing processes, and reduced point source and fugitive emissions.

A study conducted by the U.S. General Accounting Office in 1991 on the U.S. PRTR system reported that "representatives of the Chemical Manufacturers Association, which represents many of the nations's largest chemical companies, viewed the inventory as a tool to help facilities identify equipment leaks and other inefficiencies that increase their emissions".[2]

[2] U.S. General Accounting Office, *Toxic Chemicals: EPA's Toxic Release Inventory Is Useful but Can Be Improved*. Washington, DC, 1991.

This indicates that PRTRs can serve as a useful foundation for pollution prevention initiatives within industry.

In addition, PRTRs have the potential to provide data input for total quality management and foster the transfer of technology within and among companies. They can also serve as a catalyst for better communication and relations between plants and neighbouring communities, thus helping to establish trust and confidence in the company among members of the community, vendors or others (e.g. local environmental groups) who might otherwise be opposed to industry plans and initiatives.

Benefits to the Public

The principle that workers and communities should have access to information on chemical risks has its origin in a straightforward notion: those who are potentially exposed to risks from chemicals are entitled to know about these risks so they can make informed choices and take appropriate actions.

Evidence in several countries has shown that a well-informed public can serve as a partner to government and industry in environmental decision making. Well-informed workers can take measures to protect themselves and their facilities from chemical-related disasters. Well-informed communities can promote and monitor the progress of environmental improvement efforts. At the same time, well-informed industries are in a better position to undertake mitigative action or to propose compensation packages that are likely to meet with public and government acceptance.

At the local, national, or international level, public interest groups find PRTR data useful in helping to set environmental management priorities. The media also benefit from reliable data provided by government and industry. PRTRs can be a source of valuable information to fire departments, police, hospitals and other emergency response professionals who must respond to chemical-related emergencies. PRTRs are also useful to teachers and academics who use PRTR information for educational activities and research purposes.

4. THE INTERNATIONAL POLICY FRAMEWORK FOR PRTRS

PRTRs have been receiving increasing attention at the international level in a variety of fora. The following are brief summaries of recent international policy developments on PRTRs.

References to PRTRs in Agenda 21

Agenda 21 and the Rio Declaration, as agreed by heads of states in 1992 at the United Nations Conference on Environment and Development (UNCED), provide specific references to the establishment of national emission inventories and the right of the public to access this information. Through Chapter 19 which addresses the environmentally sound management of toxic chemicals, Agenda 21 recommends that "*governments and relevant international organizations with the cooperation of industry should improve databases and information systems on toxic chemicals, such as emission inventories programmes*". Chapter

19 also points out that governments should "*consider adoption of community-right-to-know or other public information dissemination programmes as possible risk reduction tools*". In the absence of such requirements "*industry should be encouraged to adopt, on a voluntary basis, community right to know programmes ... including sharing of information on causes of accidental and potential releases ... and reporting on annual routine emissions of toxic chemicals to the environment*."

Second Intersessional Group of the IFCS (ISG-2) Discussions on PRTRs

The Intersessional Group 2 (ISG-2) of the Intergovernmental Forum on Chemical Safety (IFCS) addressed the subject of PRTRs during its meeting in Canberra, Australia in March 1996. A working group on PRTRs discussed the progress made to date towards the recommendations in Chapter 19 of Agenda 21 related to PRTRs. The ISG-2 working group recognized the successful development of the OECD *Guidance Manual for Governments*; the positive experiences of the PRTR pilot projects in Mexico, Egypt and the Czech Republic; and the activities of the UNITAR PRTR programme to facilitate the design and implementation of PRTRs in developing and industrializing countries. Statements from industry and environmental non-governmental organizations made during the working group discussions confirmed the potential benefits of PRTRs to promote pollution prevention and risk reduction. The ISG-2 working group proposed that the Ad Hoc Working Group for the Agenda of Forum II consider the inclusion of PRTRs on the agenda for the Second Session of the IFCS (Forum II) and develop possible mechanisms for the preparation of draft recommendations for future actions on PRTRs.

OECD Council Recommendation

In February 1996, the OECD Council adopted its "Recommendation of the Council on Implementing Pollutant Release and Transfer Registers". Through this recommendation, OECD encourages *...Member countries [to] take steps to establish, as appropriate, implement and make publicly available a pollutant release and transfer register (PRTR) system using as a basis the principles and information set forth in the OECD Guidance to Governments Manual for PRTRs.*" The Council recommendation also states that Member countries should take into account certain principles in establishing PRTRs, which include cooperating with affected and interested parties in developing the goals and objectives of the system, making the results of the PRTR accessible to all concerned parties on a timely and regular basis, using PRTR data to promote cleaner production, and integrating the PRTR system with existing information systems to the degree possible in order to avoid duplicative reporting.

Forum II Discussions on PRTRs

The IFCS, during it Forum II meeting in Ottawa, Canada, 10-14 February 1997, reiterated the potential contribution of PRTR systems to the sound management of chemicals and encouraged "the development of PRTRs as mechanisms for achieving sustainable development and reducing risks." In issuing its recommendations on PRTRs, the Forum recognized and encouraged the continued efforts of organizations working to "facilitate and encourage adoption of PRTRs at national and local levels throughout the world", including

the Participating Organizations of the IOMC and in particular the work of OECD and UNITAR, as well as the contributions of labour and public interest groups in PRTR development. The Forum also recognized the concerns of the chemical industry related to the need to tailor PRTRs to local circumstances. In order to carry the important work on PRTRs forward, Forum II recommended that "UNITAR and OECD, in collaboration with the existing PRTR Coordination Group, assist lead agencies, identified by governments, in establishing PRTR programmes."

5. NATIONAL PRTR PROGRAMMES AND INITIATIVES [3]

Several countries have ongoing PRTR programmes or are in the process of establishing such programmes. The following are brief summaries of several national PRTR programmes and initiatives. For contact addresses in each country, please refer to Annex 1 of this document.

United States Toxics Release Inventory (TRI)

The U.S. Toxics Release Inventory (TRI) was the first regulatory pollutant inventory to be introduced by a national government. The TRI was established under the Emergency Planning and Community Right-to-Know Act of 1986 which requires, inter alia, that industrial facilities handling significant quantities of certain toxic chemicals provide the Environmental Protection Agency (EPA) with annual information on the amounts released and transferred off-site. The United States requires TRI reporting from all facilities in the manufacturing sector with 10 or more employees, and which manufacture more than 25,000 pounds or otherwise use more than 10,000 pounds of a listed chemical. The reporting requirements have recently been expanded to cover federal facilities, and starting with the 1998 reporting year, seven new industry groups will be required to report under the TRI.

Over 600 toxic chemicals are currently listed on the TRI. For each chemical, reporting facilities must provide data on releases to air, water and land (permitted and accidental), off-site waste transfers, and information on waste reduction activities. Reports can be submitted in paper format or electronically. The data may be derived from monitoring or direct measurements, or based upon estimates (e.g., mass-balance calculations or estimates obtained by using emission factors).

The primary purpose of the U.S. TRI system is to support the principle of community right-to-know, thus the information that is submitted by facilities is readily accessible and actively disseminated to the public. The U.S. EPA publishes annual TRI reports which are available at no cost. The data are also widely available throughout the U.S. public library system, on-line through the Right-to-Know Net, on CD-ROM, and on the Internet.

Canadian National Pollutant Release Inventory (NPRI)

In its 1990 Green Plan, the Canadian government stated its commitment to "develop a national database for hazardous pollutants being released from industrial and transportation

[3] The following section draws upon, *inter alia*, the Commonwealth Environment Protection Agency, *National Pollutant Inventory: A Public Discussion Paper*. Barton Act, Australia, February 1994.

sources". Subsequently, a Multi-Stakeholder Advisory Committee representing industry, environmental groups, labour and federal and provincial governments developed the NPRI system which became operational in 1993. This inventory, which is similar in structure to the U.S. TRI, is intended to serve as a tool for identifying potential environmental problems and for encouraging voluntary action to reduce releases of toxic chemicals. In addition, the NPRI has been designed to enhance the harmonization of reporting requirements across all levels of government and for all environmental media.

The NPRI inventory list currently includes 178 substances, for which facilities are required to submit release and transfer data each year to Environment Canada. The data are also collected by provincial governments. Facilities with more than 10 employees and which manufacture, process or use any of the listed substances in quantities of greater than 10 tonnes per year are required to report. The NPRI requirements are not limited to any specific industrial sectors, but some activities such as mining, retail sales and agriculture are exempted. The data collected through NPRI are disseminated through an annual report. This report and the raw data are also available electronically, including on the Internet.

The Netherlands Emissions Inventory

The Netherlands has operated and maintained a comprehensive periodic emissions inventory since 1974. It incorporates emissions data from industry as well as from traffic, rail, airports, households and land uses. Industrial emissions are determined by surveying industry directly while other emissions are estimated by applying emission factors to statistical data.

The purpose of the emissions inventory, within the broader framework of measuring the achievement of national and provincial policy objectives, is to:

- chart on a national scale the emissions to air and water from the largest emitting companies;
- compare emissions from different categories of sources; and
- link emissions information from all sources to geographical information for simulation and dispersion modelling.

The 1990 Individual Emissions Inventory covered the activities of approximately 700 companies and 900 substances of concern. The information is supplied voluntarily by surveyed companies. Facility-specific data are being made available to the public, however, some information gathered prior to 1990 is available only in aggregate form.

Through the Collective Emission Inventory System, the Dutch government collects existing monitoring data or emissions estimates for smaller industrial and other non-industrial activities based on predominant modes of transportation (road, rail, air), population and land use (particularly agricultural activities). These data from non-point sources and non-reporting point sources of emissions are most often estimated by applying emission factors to statistical data such as vehicle movements, levels of activity, etc.

United Kingdom Chemical Release Inventory (CRI)

In 1991, under the powers of the Environmental Protection Act of 1990, the United Kingdom implemented a new regulatory regime which led to the development of the Chemical Release Inventory (CRI). Through seven separate regional registers, the CRI includes chemical release data on 361 chemicals and 125 isotopes (regulated under the Radioactive Substances Act of 1993) collected from approximately 5,000 facilities.

In addition to being linked to the United Kingdom's regulatory regime for integrated pollution control, the CRI is part of the public register system of Her Majesty's Inspectorate of Pollution which supports public involvement in the process of authorizing facilities. The register contains the full details of the authorization: the application (together with any supporting environmental studies), the authorization itself, compliance monitoring returns, details of any enforcement actions taken against the facility, etc. As part of the public register system, the CRI provides for public access to information on permitted emission limits and actual releases, both authorized and unauthorized.

Australian National Pollutant Inventory (NPI)

In December 1992 Australia decided to establish a National Pollutant Inventory (NPI) to provide annual reports of substances released into the environment. The Australian Government conducted a public consultation process, inviting comments on 13 key issues. By late 1995 a draft framework for the NPI had been formulated. A voluntary trial air emissions inventory was carried out in four regional areas during the first half of 1996. The results of this trial are being used in developing the NPI. In June 1996 the Australian and State governments agreed to cooperatively implement the NPI. State governments will collect the data, while the Australian Government will be responsible for its collation and dissemination.

The proposed NPI will cover emissions to the environment from human activity. A list of reportable substances will be established, and the public will have a right to nominate substances for addition to or deletion from this list. Companies which “handle” listed substances above a specified threshold will be required to report total yearly emissions of listed substances. Emissions information from small point sources and diffuse emissions from non-industrial sources (e.g. cars, domestic chemical use) are also proposed to be included. This information will put point source emissions into a wider context and provide a more complete picture of emissions of specific substances to the environment.

The National Pollutant Inventory database will include geographic representation to allow information on the data to be viewed by locality, substance, company, activity or any combination of these parameters, and will be available through a number of channels (e.g. Internet, CD-ROM).

Mexico's Registro de Emisiones y Transferencia de Contaminantes (RETC)

Mexico initiated the development of its Registro de Emisiones y Transferencia de Contaminantes (RETC) as one of the three pilot countries working in cooperation with

UNITAR. The Mexican government has identified the development of a national PRTR as one of its priorities for environmental policy development and harmonization. The National Institute of Ecology, specifically its Directorate for Environmental Management and Information, is responsible for conducting the Mexican PRTR project.

The Mexican RETC is being designed to achieve integrated collection and storage of data on emissions to air, water and soil, to simplify information gathering and evaluation procedures, and to improve environmental management within both industry and government. The current RETC list contains 120 chemicals and chemical categories. In addition to release and transfer data, facilities will likely be required to submit information on recycling, energy recovery, on-site treatment of wastes, and source reduction activities.

A pilot PRTR reporting trial was held in early 1996 in the State of Querétaro to test the preliminary design of the PRTR system on a limited scale. It is anticipated that nationwide implementation of the PRTR programme will commence in 1997.

South Africa's PRTR Initiative

South Africa has initiated a project on Integrated Pollution Control (IPC) concerned with effective management of problems of water, air and soil quality as well as waste management. Economic, developmental and institutional issues are being considered with a view towards proposing an integrated approach to pollution prevention and control.

Within the development of an IPC approach, a PRTR is viewed as an important element of incentive-based environmental policy. Government functions may include development and management of the system, information collection, dissemination and distribution, including publication of the results. A trial of a PRTR system will be run in a South African province which contains a high degree of industrial activity.

6. ACTIVITIES OF INTERNATIONAL ORGANIZATIONS RELATED TO PRTRS

6.1 Organisation for Economic Cooperation and Development (OECD)

Development of a Guidance Manual for Governments

As follow-up to UNCED and the adoption of Agenda 21, the OECD was asked by its Member countries and the United Nations to prepare a guidance manual for national governments interested in establishing PRTRs. In 1993, the OECD Pollution Prevention and Control Group initiated work towards the development of a PRTR guidance manual for governments. Activities were conducted together with other international organizations involved in implementation of Chapter 19 of Agenda 21 (i.e., the World Health Organization (WHO), the United Nations Environment Programme/International Register of Potentially Toxic Chemicals (UNEP/IRPTC), UNITAR, and the International Programme on Chemical Safety (IPCS)), through a process involving all concerned parties (e.g. governments at all levels, industry, citizen groups, non-OECD representatives, etc.). A series of five workshops were held during 1994/95 on the various topics and issues to be covered in the manual. The

resulting OECD document entitled *Pollutant Release and Transfer Registers: A Tool for Environmental Policy and Sustainable Development: Guidance Manual for Governments* was published in early 1996. The manual is designed to assist national governments by providing key considerations and guidance related to the development of a national PRTR system. It is a key document both in regards to international activities and discussions related to PRTRs as well as for PRTR development projects at the country level.

Regional Workshops on PRTRs

A series of regional PRTR workshops have been jointly organized by OECD and UNITAR to raise awareness and knowledge of PRTRs among countries around the world. During these workshops, participants from governments, industry and other groups learned about and discussed topics such as how PRTRs can contribute to national environmental management, how PRTR systems can be tailored to meet the specific needs and objectives of individual countries, and potential opportunities for follow-up at the national level towards the establishment of PRTRs. A regional workshop for countries of the Asia-Pacific region was held in Canberra, Australia in June 1996, sponsored and hosted by the Australian Government in cooperation with OECD and UNITAR. The PRTR Workshop for Central and Eastern Europe and New Independent States of the Former Soviet Union took place in Prague-Pruhonice, the Czech Republic, in January 1997, jointly organized by the OECD and UNITAR and hosted by the Czech Government. The PRTR Workshop for Countries of the Americas, hosted by the Government of Mexico and held in Queretaro, Mexico in July 1997, was jointly organized by the Instituto Nacional de Ecologia (INE), the Commission for Environmental Cooperation (CEC), UNITAR, OECD and UNEP.

6.2 UNITAR's Programme to Facilitate the Design and Implementation of PRTRs in Developing and Industrializing Countries

Meeting the Needs of Developing Countries

UNITAR's activities related to PRTRs are designed to support and facilitate the national PRTR design process within developing and industrializing countries that are interested in establishing PRTR systems. The purpose of the guidance materials and support services provided by UNITAR is to support a country-driven, multi-stakeholder approach towards the design of national PRTR systems that are consistent with each country's environmental and development objectives. UNITAR's efforts are closely linked to, and largely based on, the *Guidance Manual for Governments* developed by OECD on the establishment of national PRTRs. The OECD document provides the substantive basis upon which UNITAR is building a comprehensive training and capacity building programme designed specifically to meet the needs of developing and industrializing countries. As part of this programme and to assist countries in the process of designing a PRTR system, UNITAR has developed a 6-stage framework which is meant as a starting point for organizing a national PRTR design project. This suggested framework is summarized in Table 1.

Table 1: Stages of the Suggested PRTR Design Framework

Stage	Activity	Objective
Stage 1	Identifying the Goals of the National PRTR System	To identify and agree on the national environmental objectives for the PRTR system by undertaking consultations with all affected and interested parties.
Stage 2	Assessing the Existing Infrastructure Relevant to a National PRTR	To conduct a comprehensive assessment of the existing legal, regulatory, institutional, administrative and technical infrastructure and available national expertise relevant for designing and implementing a national PRTR system.
Stage 3	Designing the Key Features of a National PRTR System	To make decisions on key features and characteristics of the national PRTR system in line with the established PRTR objectives.
Stage 4	Conducting a PRTR Pilot Reporting Trial	To test the PRTR system on a limited scale to gather practical insights into operational challenges and as an input towards finalizing the national PRTR proposal.
Stage 5	Finalizing the National PRTR Proposal	To prepare a final document which outlines the complete specifications of the national PRTR system to be submitted for approval by national authorities.
Stage 6	Organizing a National PRTR Implementation Workshop	To hold a national workshop to secure policy commitment and launch an action plan for implementation of the national PRTR system.

The development of the UNITAR PRTR training and capacity building programme has been based largely upon experiences gained through three PRTR pilot studies that UNITAR initiated in 1994 with the Czech Republic, Egypt, and Mexico. The objectives of these pilot studies were to assist each of the countries in designing a national PRTR proposal through a process involving all interested parties, and to obtain a better understanding of the challenges associated with introducing PRTRs in developing and industrializing countries.

Guidance on the PRTR Design Process

Each of the six stages of UNITAR's suggested framework for designing and implementing a national PRTR system are covered in detail in Part C of this guidance document. To complement the guidance provided in this document, UNITAR has developed supplementary guides on several of the key stages:

- *Supplement 1: Preparing a National PRTR Infrastructure Assessment* addresses Stage 2 of the suggested PRTR design process. It provides advice and information on how to document and evaluate the legal, institutional, administrative and technical infrastructure relevant to a national PRTR system. The National PRTR Infrastructure Assessment integrates available PRTR-related information into one coherent national reference document to be used throughout the PRTR design process.

- *Supplement 2: Designing the Key Features of a National PRTR System* addresses Stage 3 of the suggested PRTR design process. It outlines the issues to consider in designing the key features of the national PRTR system and provides references to additional literature addressing various technical issues.

- *Implementing a PRTR Pilot Reporting Trial: A Supplementary Guide* addresses Stage 4 of the suggested PRTR design process. It provides guidance for the planning and operation of a PRTR pilot reporting trial to test and fine-tune the proposed national PRTR design prior to full scale implementation. The document covers the content and scope of a pilot reporting trial as well as organizational issues.

- *Structuring a National PRTR Proposal: A Supplementary Guide* addresses Stage 5 of the suggested PRTR design process. It provides recommendations for structuring the final national PRTR proposal to ensure that the final document addresses all important aspects of PRTR implementation, including technical issues (e.g. the list of chemicals), as well as institutional aspects, such as the role of various agencies in operating the national PRTR system.

Technical Support and General Reference Materials

UNITAR is also developing technical support and guidance materials on specific aspects of PRTR design and implementation:

- *Addressing Industry Concerns Related to PRTRs* (Final draft, July 1997) addresses five of the most common concerns of industry regarding PRTR reporting. It describes how the issues have been addressed in countries with existing PRTR systems and, based on these experiences, provides some observations and practical guidance to assist both government and industry in successfully addressing the concerns.

- *Guidance for Facilities on PRTR Data Estimation and Reporting* (Final draft, July 1997) provides guidance for industry on estimating emissions of pollutants from industrial facilities for the purpose of PRTR reporting. The document provides procedural guidance to help company managers address the organizational and managerial aspects of PRTR data estimation and reporting, and also provides a step-by-step approach and general technical guidance to assist technical staff in estimating pollutant releases/transfers at the facility level.

- *Guidance on Estimating Non-point Source Emissions* (in preparation, July 1997) provides guidance primarily for governments on estimating non-point sources of pollution, such as agricultural run-off and transportation emissions. It covers sources of emissions, data needed for calculation, and estimation methods.

- *Use of PRTR Information in Developing Countries: Opportunities and Challenges* (in preparation) addresses the potential benefits of PRTR data for government, industry, non-governmental and community groups, including how environmental data can contribute to industry and community efforts towards risk reduction, and the potential role of NGOs in disseminating data to the general public.

- *Resource Guide to PRTR Literature* (available as a draft) provides useful information on a core set of documents relevant to PRTR design and implementation. For each reference, a summary of its contents is provided as well as an assessment of its potential value in the context of PRTR design and implementation.

Box 1: UNITAR's PRTR Programme

UNITAR, through its *Programme to Facilitate the Design and Implementation of National PRTRs*, is committed to providing assistance to developing countries and countries in economic transition to support a national PRTR design process. This *Guidance Document* and other UNITAR documents that are referred to throughout the text are considered a starting point and framework for countries for organizing the process of designing a national PRTR.

Some countries may wish to wish to pursue direct cooperation with UNITAR in developing their national PRTR systems. UNITAR is interested in working with countries on a cooperative basis, subject to availability of resources, to support the national PRTR design process and provide technical, informational, and financial support to meet the country's specific needs and circumstances. Countries interested in establishing this type of formal cooperation should contact UNITAR. Following this request, UNITAR will attempt to identify potential donors to support a national PRTR design project.

The following are the responsibilities to be fulfilled by countries that have a cooperative arrangement with UNITAR toward the design and implementation of a national PRTR:

- the government should be committed to implementation of Agenda 21, in particular those sections that refer to chemicals emissions inventories;
- the government should designate an agency or institute involved in environmental pollution monitoring, control and/or prevention as the National Coordinator for the PRTR design project;
- the National Coordinator should serve as the contact point with UNITAR and ensure that a close dialogue is maintained;
- the PRTR design process should involve all concerned government ministries, as well as organizations and associations outside of government, such as industry associations, universities, research institutes, and public interest groups;
- the government should commit human and financial resources towards the organization and coordination of workshops, consultations, research studies and publications; and
- national industry and public interest groups should be interested in and willing to become directly involved in the national PRTR design effort.

6.3 PRTR Support Activities of Other International Organizations

United Nations Environment Programme/International Register for Potentially Toxic Chemicals (UNEP Chemicals/IRPTC)

UNEP Chemicals (IRPTC) serves as a general PRTR information clearinghouse on behalf of the UN system. As part of this effort, UNEP Chemicals (IRPTC) has established an Internet World Wide Web site for information on PRTRs, and is building up the contents of the site to include information on national PRTR initiatives, international PRTR-related activities and programmes, and sources of additional information on PRTRs. UNEP Chemicals (IRPTC) is committed to providing information and technical assistance to countries, in particular on data collection, management and dissemination, in the context of national PRTR design projects implemented through the UNITAR PRTR training and capacity building programme. UNEP Chemicals (IRPTC) and UNITAR are also collaborating to explore issues related to the communication, dissemination and use of PRTR data, including the use of PRTR information by communities, industry and NGOs.

World Health Organization (WHO)

WHO is developing approaches for estimating releases from various emission sources, integrating and building upon the work of UNEP and UNITAR. At present, WHO is evaluating models, resource needs, required input information and most useful outputs. These data estimation methods are likely to be of particular use to national governments that choose to include data from diffuse sources in their PRTRs, as has been done in the Netherlands.

United Nations Industrial Development Organization (UNIDO)

UNIDO views PRTRs as an important tool for measuring and monitoring the criteria for assessing the environmental compatibility of industrial development. Through its various projects in virtually every industrial sector in many developing countries, UNIDO can play a key role in involving industry in the development and implementation of PRTRs. UNIDO is planning a specific contribution to the PRTR data collection process at the national level through the development of industry specific emission factors as a basis for estimating industrial pollutant releases.

World Wildlife Fund (WWF)

WWF has been actively involved in international activities related to PRTRs. In particular, WWF played a key role in organizing the efforts of non-governmental organizations during the development of the OECD *Guidance Manual for Governments* by coordinating NGO involvement in the OECD workshop series. WWF has also helped to create an international right-to-know NGO network. In 1995 WWF published a key document on PRTRs entitled *A Benchmark for Reporting on Chemicals at Industrial Facilities*. WWF is also supporting research and pilot projects in developed and developing countries to assess the potential for PRTRs to reduce toxics use, to ensure that community groups will have the capacity to use PRTR-type information when it becomes available, and to assist communities in obtaining this information where it is not yet available.

7. FOR MORE INFORMATION

An increasing number of documents are available, or are being developed, which provide valuable information and experiences related to PRTRs. Of particular relevance to countries considering developing a national PRTR programme are the OECD *Guidance Manual for Governments* and the complementary guidance series offered by UNITAR. To find out more about PRTRs and to obtain references to additional materials, the reader is encouraged to refer to UNITAR's *Resource Guide to PRTR Literature*, which provides summary information on a wide range of documents and resources that have relevance to various aspects of PRTR design and implementation, and to access the UNEP/IRPTC Internet web site on PRTRs *(http://irptc.unep.ch/prtr/*) which provides a range of up-to-date information relevant to PRTRs.

PART B: Organizing the National PRTR Design Project

Box 2: A Typical PRTR Design Project

Following the initial commitment at the national level to pursue a PRTR programme, an agency or institution that will serve as the National Coordinator throughout the design process is identified. At this point, consultations with the various stakeholders (governmental ministries, industry, non-governmental organizations, etc.) are initiated to raise awareness of the PRTR project and to identify preliminary objectives of the PRTR system. The consultative process may take place through a national workshop, a series of regional workshops, or on a more informal basis.

Once awareness-raising and initial consultations have taken place, a National Coordinating Team (NCT) is established. The NCT is a core group of representatives from key stakeholder groups and concerned parties which have an interest in the national PRTR system for various reasons. In order to clearly define its role and to ensure momentum throughout the design process, the NCT develops a Terms of Reference designating specific tasks, time frames and responsibilities. One of the first tasks of the NCT is to undertake a comprehensive assessment of the existing legal, institutional, administrative and technical infrastructures relevant to the PRTR, and to compile this information into a National PRTR Infrastructure Assessment Report. Once this groundwork has been laid, specific technical issues related to the structure and implementation of the PRTR system are identified and the key features of the PRTR system are designed, drawing upon the input of concerned parties.

At this point, a PRTR pilot reporting trial is conducted as a means for testing and fine-tuning the preliminary PRTR design. After the NCT has incorporated the results and feedback from the pilot reporting trial into a revised version of the PRTR design, a draft PRTR proposal is created to be presented and reviewed at a national workshop. The National PRTR Implementation Workshop is an opportunity to announce the proposed PRTR system to a wide range of audiences, to obtain a last set of comments on the proposed model, and secure the commitment of key authorities towards implementation of the PRTR. The input received during the workshop is taken into consideration during preparation of the final PRTR proposal and contributes to the development of a plan of action for implementing the PRTR system on a national scale.

1. INTRODUCTION

This part of the guidance document provides suggestions for organizing a national PRTR design project. Key to the success of this process is the active involvement of all concerned parties at the national level. Without broad, multi-stakeholder input, the PRTR proposal may fail to address the concerns of key groups or may not meet the intended national objectives for the system. An important task, therefore, is to secure the involvement of the various interested parties in the process of designing the national PRTR system.

One way to achieve broad participation in the PRTR design process is by establishing a National Coordinating Team (NCT) comprised of representatives from the various interested parties (e.g. government, industry, non-governmental organizations) who together will undertake the tasks and activities involved in designing the national PRTR system.

The following sections discuss some important steps in initiating the national PRTR design project, including the selection of an agency to serve as the National Coordinator throughout the process and some potential strategies for raising awareness and generating policy commitment towards the development of a national PRTR. Suggestions are also provided on how to organize a National Coordinating Team by identifying the key parties, initiating a productive dialogue among them, assigning roles and responsibilities, and finally creating a PRTR design work plan that can deliver a national PRTR system within the specified time frame.

2. STARTING THE PRTR DESIGN PROJECT

Laying a solid foundation for the national PRTR design project will help ensure the successful development of a PRTR design proposal. Tasks involved in this initial groundwork include identifying the entity that will serve as the National Coordinator, and raising the awareness of and consulting with the various stakeholders that are likely to be involved or concerned with the process.

Selecting the National Coordinator

The National Coordinator is the agency that is responsible for organizing and facilitating the national PRTR design project. The National Coordinator acts as the central coordinating point within the country, and serves as the liaison to UNITAR and other outside organizations. The National Coordinator should be located in a national ministry or agency which is responsible for, or closely associated with, the monitoring and/or regulation of emissions of pollutants to the environment. The national agency responsible for licensing and permitting of industrial enterprises may also be a good candidate.

Once the National Coordinator has been selected, an individual within that agency should be identified to serve as project coordinator. This person should have a clear understanding of PRTRs and be able to work effectively with other ministries and stakeholders, both within and outside of government.

The leading agency responsible for introducing the initial concept of developing a PRTR might be a natural candidate to serve as the National Coordinator. In the case in which there are several agencies that are potential candidates, discussions should be held among them to determine what qualifications and capacities the National Coordinator should ideally possess. The national coordinating agency should be selected based on those criteria. Some key questions in defining these criteria might include:

- What will be the role and function of the National Coordinator within the national PRTR design project?
- What type of agency (e.g., regulatory, permitting, monitoring, etc.) should serve as the National Coordinator? In which ministry should the National Coordinator be located?
- Who might serve as the project coordinator within the coordinating agency and what are his/her responsibilities and level of authority?
- What resources and services of the agency or ministry selected as the National Coordinator will be required to conduct the various activities and tasks associated with coordinating the national PRTR design effort?

Increasing Awareness of PRTR

Another important initial step in the process of designing a national PRTR system is to raise awareness among the various parties of interest regarding what a PRTR system is, what opportunities it can provide, and the implications and responsibilities it holds for those who will be involved in and affected by its implementation. The experiences of several countries that have designed and implemented PRTR systems indicate that an effective awareness raising and communication effort, combined with broad-based consultations with parties of interest, should be undertaken by the National Coordinator prior to establishing any formal structure for overseeing the development of the national PRTR. These awareness raising and communication efforts contribute to the establishment of a national team that can effectively lead the PRTR design project.

Due to the variety of stakeholders in a national PRTR design process, it is useful to tailor the awareness raising strategy to the particular situation and concerns of each stakeholder group. Some issues to consider in developing an awareness raising strategy include:

- What is the message to be conveyed to various parties of interest regarding PRTRs and the PRTR design project?
- How can the PRTR concept be most effectively promoted among the various parties of interest?
- For each stakeholder group, what are the objectives of engaging in discussion, what are the key issues to be addressed, and what are likely to be their main interests and concerns?

The following are some suggested activities for increasing awareness about the PRTR system and reaching out to the various potential stakeholders.

- PRTR Briefing Document

  The preparation of a national PRTR briefing document or background paper could be useful for facilitating outreach and awareness raising efforts. Such a document might include information on international PRTR activities, a description of what a PRTR is and how it can be used, the potential benefits and objectives of a national PRTR, an introduction to the national PRTR design project, and the importance of stakeholder involvement in the design process. This briefing document could be disseminated to various parties of interest as the basis for subsequent meetings and discussions.

- Meetings

  One-on-one conversations with the leaders of key stakeholder groups can be an effective way to inform them of the potential benefits of a PRTR, encourage their support for the PRTR initiative and find out about their concerns and perspectives regarding the development of a PRTR. Meetings or small seminars can also help to enlist the participation of government agencies or industrial associations that may initially perceive the PRTR development effort as contrary to their interests. Such attitudes may be based on a lack of information, which can be addressed through well targeted communication and educational efforts. It is important to emphasize the particular opportunities a PRTR can provide for each of the affected groups, and to highlight the potential linkages to other environmental management initiatives. Consulting with and encouraging the involvement of various parties of interest throughout the design project will help to ensure that the resulting PRTR system will meet the needs of the country.

- National Awareness Raising Workshop [4]

  Some countries have found the organization of a national workshop, and/or a series of regional workshops, to be an effective means for raising awareness and getting concerned parties directly involved in the design project. To be effective, such a national workshop should involve a wide range of participants representing the various viewpoints and concerns of all interested parties. Achieving this level of participation will entail considerable outreach to ensure that all stakeholder groups are aware of and are invited to participate in the workshop. During the workshop, background information should be presented and discussions held on the concept of a PRTR system, its potential benefits and applications, and its relevance to national goals and objectives. A national workshop of this nature could be organized with the cooperation of international agencies that have experience with and knowledge of PRTRs.

The desired outcome of these awareness raising efforts is that key participants from national interest groups who are genuinely interested in developing a national PRTR will actively join the PRTR design process. Another desired outcome is the mobilization of interest and

[4] For additional guidance on organizing a national workshop, please refer to UNITAR/IOMC, *Organizing a National Workshop on Chemicals Management and Safety: A Guidance Document* (April 1997), available in English, French and Spanish.

commitment of top decision makers. This policy support will be helpful throughout the PRTR design process and during the implementation phase.

Identifying Concerned Parties

What does it mean to be a "concerned party" in the context of a national PRTR design project? A concerned party or stakeholder can be a governmental ministry, agency, institution, non-governmental organization (NGO), public interest group, or other body concerned about information on pollutant emissions, the related risks to health and environment, and implications of risk reduction efforts. These groups recognize that the decisions made during the PRTR design process could have an impact on their activities or affect issues with which they are concerned.

The concerned parties in a national PRTR design project will vary among countries. In most cases concerned parties will come from four general sectors:

- Federal, regional and local government ministries, agencies or other bodies

  Concerned governmental entities at the national level may include the Ministry of Agriculture, Commerce, Economics, Environment, Health, Industry, Justice, Labour, Public Works, Transportation, or other governmental entities responsible for the development and implementation of laws, regulations and policies related to pollution and environmental management.

  In some countries, provincial, state, or regional governments also may participate as important stakeholders in the design of the PRTR system. For example, if environmental monitoring typically is the responsibility of individual regions or states within the country, then the national government may be unable to achieve the development of a successful PRTR without obtaining the cooperation and agreement of these entities. Similarly, the municipal governments of large cities may also play a key role in the development and implementation of the PRTR system.

- Industry groups and associations

  These may include chemical industry associations, manufacturers associations, and other industrial groups that may be subject to PRTR reporting. Industrial groups that are well organized and interested in improving their capacity to track and reduce emissions of pollutants can be key partners in a PRTR design process. Box 3 addresses the importance, as well as potential benefits, of industry participation in the national PRTR design project.

- NGO and interest group representatives

  These may include environmental, consumer or other community-based organizations, labour unions, and other associations that share a concern about releases and transfers of pollutants within the country. Typically, the basis of this concern will be issues regarding human health or environmental risks of emissions and transfers of pollutants.

Box 3: Facilitating a dialogue with industry

Considering the views of industry is important because of industry's key role, not just in the development of a national PRTR system, but also in the ongoing effort to monitor and reduce pollution and chemical risks. A decision-making process that industry perceives as responsive to its concerns is far more likely to gain their support and participation. Industry participation in the PRTR design project is likely to be enhanced to the extent that the potential benefits of cooperation are clearly identified and communicated. Potential benefits to industry of participating in the PRTR design effort include:

- Simplification of reporting requirements

  In many countries, industry faces a multitude of reporting requirements, with different agencies requiring reports on chemical releases or transfers according to different time-frames and with varying measurement methods and data elements. Participation in designing a multi-media PRTR has the potential to simplify the reporting requirements of industry, thereby saving substantial time and money.

- Building relationships with government and other companies

  Participation in the PRTR design project can provide companies with a competitive edge as they build relationships with important government and industry partners.

- Achieving corporate goodwill

  Participation in the PRTR initiative can improve a company's public image and facilitate enhanced communication with nearby communities by providing a means for establishing trust and identifying opportunities for collaborative action towards common risk reduction goals.

It may be difficult to determine the appropriate NGO and interest group representatives, particularly if the groups are too numerous for all to be directly involved. Therefore, it may be necessary to establish a mechanism to determine the most qualified or interested NGOs and interest groups or to establish a means for allowing the NGOs and interest groups to determine for themselves who should represent their interests and concerns.

- Academic and research institutions

  This group typically includes researchers from major universities as well as representatives of industrial, agricultural, oil or mining research centres and other sources of scientific/technical information on releases and transfers of pollutants.

If the number of concerned parties is very large, it may be impractical to involve everyone. In such cases, it is generally advisable to involve at least one representative from the principal groups that may be affected by the PRTR system and whose views will span the range of relevant perspectives. In some cases it may be important to include a person or group for political reasons. For example, the presence of a specific individual may be necessary to ensure the cooperation of the national legislature or to facilitate close cooperation with an industry or environmental coalition.

The bottom line is that the views of all groups with legitimate concerns should be included as part of the PRTR design process. All participants should recognize that the PRTR design process is a joint design exercise and not an opportunity for politically motivated lobbying.

3. ESTABLISHING THE NATIONAL COORDINATING TEAM

The basis of a successful PRTR design project is the establishment of a clear management structure for overseeing and undertaking the necessary tasks and activities involved in the development of the PRTR system. It is therefore suggested that a National Coordinating Team (NCT) be established with representatives of the various concerned parties within and outside of government. Many of these participants will have been identified during the initial awareness raising activities and consultations.

The Role of the National Coordinating Team

The suggested role of the National Coordinating Team is to organize and supervise the work towards the preparation of a national PRTR proposal. This proposal should cover in detail all aspects of the design, implementation and operation of the national PRTR system.

Some key issues to consider in establishing the NCT and defining its mandate include:

- What will be the main roles and functions of the National Coordinating Team?
- Which governmental ministries and agencies should participate in the NCT?
- What organizations and interests outside of government should be represented on the NCT?

- Is it necessary to involve all interested parties or can a smaller number of key representatives be designated?

- What specific contributions (time, expertise, constructive input, etc.) will be expected from the members of the NCT?

Ideally the national PRTR proposal delivered by the NCT at the end of the design project will not only be sufficiently comprehensive and well designed but will also have enough policy support for final approval and execution by the pertinent national authorities. The role of the National Coordinating Team therefore involves more than the substantive design of the PRTR system. It also involves an effort to build the required policy support for the actual implementation of the PRTR system in the country. By organizing a PRTR design process that responds to the needs of the various concerned parties and interest groups, the NCT can maximize the chances of success.

Managing an Effective Participatory Process

The basis for an effective, well coordinated participatory process is clear communication. From the outset, participants in the National Coordinating Team need to understand their responsibilities and know what is expected from them in developing a national PRTR. They should be convinced that they have an important role to play in designing the national PRTR system and that their input will contribute to the development of a sound, well-designed system. Maintaining effective communication and coordination among concerned parties is an ongoing challenge that the NCT will have to face throughout the design project.

Coordination among a heterogeneous group such as the National Coordinating Team is a subtle and complex process which is constantly shifting in nature and priorities. What may be basic and essential communication to one party may be excessive or unnecessary to another. In addition, the actions and time commitments required of individuals and groups involved in the PRTR design project may vary significantly from one week or month to the next. The NCT must be able to anticipate these emerging requirements to maintain effective coordination and ensure timely accomplishment of design tasks.

In many cases, it will be possible to easily reach agreement and incorporate the input of most parties on specific issues. In other cases, however, simple consensus will not be a realistic goal due to differences in opinion and interpretations among members of the National Coordinating Team. In such cases, the best that can be hoped for is to clarify areas of agreement and disagreement and, with this knowledge carefully recorded, move ahead towards the development of workable and generally acceptable strategies for completing the design of the national PRTR system.

One of the most common impediments to effective coordination among members of the National Coordinating Team is its size. As the number of participants increases, the task of coordinating among them becomes increasingly difficult and issues such as meeting logistics and costs become more complicated. If more than 15 concerned parties are involved, it might be advisable to organize smaller groups (drawn from the national team) to conduct specific tasks in the PRTR design process.

Organizational Structure of the National Coordinating Team

Once a National Coordinating Team has been convened, an important first step is to agree upon how it will be organized and decide what leadership and administrative positions should be created to ensure that the group will operate effectively. A possible organizational structure for the NCT may consist of the following elements:

- Project Coordinator or Manager
- Secretary of the National Coordinating Team
- Members of the National Coordinating Team (i.e., representatives of the various parties of interest including government agencies, industry, academia, labour and public interest groups)
- Optional Consultative Committee (subgroup of NCT members to provide assistance to the Project Coordinator)

The following examples offer some ideas on how the various roles and management functions might be divided within this type of organizational structure.

The individual that has lead responsibility for the PRTR design project within the agency that is serving as the National Coordinator, or some other suitable national authority, could assume the role of ***Project Coordinator*** or manager of the NCT. This role would include:

- General management of the NCT's decision making and PRTR design activities until completion of the national PRTR proposal;
- Appointing working groups and ad hoc committees within the NCT to carry out specific design tasks, enlisting the assistance of outside experts, and arranging any other mechanisms necessary to advance the PRTR design work;
- Convening members, scheduling meetings, and preparing the NCT agenda; and
- Verifying NCT consensus on submitted recommendations, resolving disagreements and differences, conducting further consultations and work on pending issues until decisions on the various design elements are arrived at by NCT members and incorporated in the final PRTR proposal.

One or several persons may be appointed to act as ***Secretary*** of the NCT. The main role for the Secretary is to assist the Project Coordinator in the following functions:

- Maintaining a record of all decisions and recommendations adopted by the NCT during the PRTR design project;
- Compiling draft and final chapters of the national PRTR proposal; and
- Maintaining a mailing list of government agencies, civil associations, industrial chambers and companies for sending out periodic updates and soliciting comments on the progress of the national PRTR design effort.

If the National Coordinating Team is large, formation of a ***Consultative Committee*** may be necessary to assist the Project Coordinator in organizing the work of the NCT. The constituents of such a committee should be those NCT members with the greatest interest in the development of a national PRTR system. The Project Coordinator could appoint the members of the optional Consultative Committee by some method deemed appropriate (voting within the NCT, voluntary nomination, or through direct appointment). The members of the Consultative Committee should be prepared to assume leadership roles along with the Project Coordinator in moving the national PRTR design process forward.

Responsibilities of the Members of the National Coordinating Team

Active and responsible participation should be expected of all members of the National Coordinating Team in carrying out the necessary tasks involved in designing the national PRTR system. Specific responsibilities may include the following:

- Participating in working groups

  NCT members should actively engage in whatever design task is assigned to them by the Project Coordinator or other relevant authority in the NCT. They should present their recommendations and conclusions within the time frame stipulated in the NCT work plan.

- Maintaining communication with their respective constituencies

  NCT members should make every effort to ensure the continued support of their constituencies for the PRTR design effort. It is expected that members will regularly communicate with their constituencies on the progress being made in PRTR development and the positions adopted within the NCT. This will help ensure steady consensus building and broad political support for the final PRTR proposal produced by the NCT.

- Contributing their respective expertise to the PRTR design

  Members of the NCT should tap their respective individual resources, areas of expertise and institutional contacts to contribute to the PRTR design process.

Operational Procedures

The following are some issues to consider in developing operating procedures for the NCT. In order to prevent misunderstandings and inefficiency once the design process is underway, it is important to clearly define how the team will operate.

- Meetings

  Typically, an eighteen month period should be sufficient to finalize the design of the national PRTR system. It is suggested that during this time the National Coordinating Team conduct at least one meeting per month to review progress on the various design tasks until the national PRTR proposal is completed.

  The design of the national PRTR system can be approached by dividing the work into a series of stages. Each stage will be comprised of specific activities or design tasks that pertain to a certain aspect of the PRTR design. Once the stages of the design process have been identified, the NCT may decide to address each stage sequentially. One or several monthly meetings may be held for each stage depending on the magnitude of the work entailed. During each meeting all recommendations related to the current design task should be reviewed and finalized. Ideally the output of each stage would be a draft chapter for the final PRTR proposal document.

  Another possibility is to address the PRTR design stages in parallel. For example, a number of working groups could be established, each one focusing on one of the various PRTR design elements or stages. Each working group would then develop concrete recommendations for the specific element of the national PRTR system for which they are responsible and produce the corresponding draft chapter of the national PRTR proposal. Under this format, the NCT may only meet as a whole once a month to review the progress of the various working groups, address any pending issues, and resolve concerns.

- Decision Making Procedures

  The Project Coordinator or manager of the NCT must clearly delineate the team´s decision making procedures. This entails defining which issues are open for discussion and which will be decided in some other way. A sure recipe for dissatisfaction of concerned parties is when input is sought but then is not utilized or considered in making the final decisions.

  Likewise, clear rules for joint decision making within the NCT should be laid out in advance. These rules should cover parameters such as whether a majority vote or some other means will be used to decide on specific proposals or PRTR design choices, who will put up issues for voting and under what circumstances, etc.

Developing a Work Plan

A key to effective organization of the NCT is the development of a work plan for the entire PRTR design project. This work plan should put all activities and design tasks to be carried out into a specific time frame. A comprehensive work plan should clearly lay out the sequence of activities, as well as activities that may occur simultaneously, for achieving completion of the national PRTR system design during the allotted time frame.

Aside from timing considerations, the PRTR design work plan should also contain a clear assignment of responsibilities for each of the planned activities. If specific PRTR design

activities will be delegated to particular working groups or individuals, the work plan should indicate the group or person responsible for each activity or design task. It should also include deadlines for finalizing the work and delivering recommendations and outputs to the National Coordinating Team.

In developing its work plan, the NCT may draw upon the design stages and tasks further described in Part C of this document. The following guidance questions may also serve as a useful starting point:

- What activities should take place within the PRTR design project and what is the time frame and sequence of these activities?

- What should be the contributions and responsibilities of the various members of the NCT in carrying out these activities? Should working groups be formed for specific tasks?

- Are resources available (both human and financial) to implement all activities to be included in the work plan?

Preparing a Terms of Reference Document

To formalize the organization of the national PRTR design project it is recommended that a Terms of Reference document be prepared by the NCT. This Terms of Reference document may consist of the following elements:

- Organizational structure for the National Coordinating Team, including leadership roles and the responsibilities of participating members;

- Operational guidelines for the National Coordinating Team, including meetings and decision making procedures; and

- The PRTR design work plan, with all the planned activities mapped out according to a reasonable time frame and with responsible parties identified for each task.

PART C: Suggested Stages of the National PRTR Design Project

1. INTRODUCTION

This part of the guidance document introduces a framework for the national PRTR design project. Based on experience gained in countries that have implemented PRTRs, there are several basic stages that most countries go through in formulating a national PRTR system. These stages are summarized in the following 6 stage framework.

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 the National PRTR System
4. Conducting a PRTR Pilot Reporting Trial
5. Finalizing the National PRTR Proposal
6. Organizing a National PRTR Implementation Workshop

2. STAGES OF THE PRTR DESIGN PROJECT

The following sections offer specific guidance on each of the six suggested stages of the national PRTR design project. For each stage, suggestions are provided on the objective of the stage, the key tasks involved, relevant questions to be addressed, and expected outputs. The guidance is intended to assist the National Coordinating Team in undertaking the various tasks and activities involved in designing a national PRTR system. By dividing the PRTR design process into distinct stages as in the suggested framework, the NCT should be better able to effectively organize its efforts towards development of a completed national PRTR design proposal. The activities, objectives and suggested outputs of each of the stages, as outlined in the following pages, are intended to be flexible, and thus should be adapted, as appropriate, to meet the needs of the NCT in working through the process of designing a national PRTR system.

Stage 1: Identifying the Goals of the National PRTR System

Objective

To identify and agree on the national objectives for the PRTR system by undertaking consultations with all affected and interested parties.

After the initial commitment at the national level to pursue a PRTR programme, the agency acting as the National Coordinator for the PRTR design project should undertake consultations with the various concerned parties (governmental ministries, industry, non-governmental organizations, etc.) to identify the objectives of the national PRTR system. Taking into consideration the perspectives of the various sectors is important in order to design a national PRTR which is realistic, and which addresses the needs of various parties of interest. A clear strategy should be developed on how to manage this consultation process.

The specific national objectives chosen for the PRTR system will shape and direct the overall PRTR design project. It is very important that the various national stakeholders agree upon and clarify the objectives of the national PRTR system before tackling the actual design of the system. The agreed national objectives should be formalized in writing to serve as a reference during the design process.

The following list of possible objectives of a PRTR might serve as a useful starting point:

- Identifying major sources of releases and transfers of pollutants;
- Quantifying pollutant releases and transfers at the national and local levels;
- Tracking of substance specific emissions trends;
- Identifying geographic areas of environmental concern;
- Providing environmental information to the public (e.g. in support of a national policy on "community right-to-know");
- Promoting cleaner production and pollution prevention activities by industry;
- Identifying opportunities for environmental risk reduction;
- Integrating and harmonizing reporting requirements;
- Fulfilling international obligations to report emissions data and statistics; and
- Broadening of public participation and interest in environmental policy decision making processes.

Suggested Tasks

- Consultations with parties-of-interest to identify the objectives of a national PRTR system and raise awareness about the PRTR design project.

- Preparation of a National PRTR Briefing Document which includes information on international PRTR activities, potential benefits and objectives of a national PRTR, and an introduction to the PRTR design project; dissemination of the National PRTR Briefing Document to all interested parties.

- Formalization of agreed national objectives for the PRTR system in a document to serve as a reference throughout the design project.

Key Considerations

- What are the potential benefits of a national PRTR for government, industry, and the public, respectively?

- What objectives have PRTR systems served in other countries? In what ways are these experiences relevant to the national situation?

- How would a national PRTR system advance national environmental management goals?

Suggested Outputs

- National PRTR Briefing Document.

- List of objectives for the national PRTR system as agreed upon by the various stakeholders in the country.

Stage 2: Assessing the Existing Infrastructure Relevant to a National PRTR

Objective

To conduct a comprehensive assessment of the existing legal, regulatory, institutional, administrative and technical infrastructure and available national expertise relevant for designing and implementing a national PRTR system.

Once national PRTR objectives have been defined, it is useful to conduct a thorough assessment of the national infrastructure relevant to the design and implementation of the national PRTR system. A *National PRTR Infrastructure Assessment Report* should be prepared summarizing existing national information, programmes and activities in the area of pollution monitoring and emissions data collection.

The infrastructure assessment should identify available expertise and compile relevant national information into one coherent document to be used as a reference during the PRTR design project. The National PRTR Infrastructure Assessment Report is considered a key document to ensure that the PRTR system is linked to, and builds upon, ongoing programmes and initiatives. Close cooperation and input from all sources of relevant national expertise is considered essential.

A PRTR infrastructure assessment should typically cover the following subject areas:

- National legal and regulatory infrastructure relevant to a national PRTR;
- National institutional and administrative infrastructure relevant to a national PRTR;
- Existing national databases on emissions data or releases/transfers of chemicals to various environmental media;
- Programmes and activities conducted by industry, research organizations and public/environmental interest groups relevant to a national PRTR; and
- Programmes and activities conducted with support of international organizations relevant to a national PRTR.

Suggested Tasks

- Conduct a "legal survey" of existing regulations and reporting requirements concerning the emission of pollutants to various environmental media (air, water, soil) and hazardous waste generation. The survey should also identify existing standards and maximum permissible emission levels, and determine the specific legal responsibilities and mandates of each government agency related to collection of emissions data and maintenance of environmental information databases.

- Conduct an "information survey" to map out current information flows within and among various agencies and institutions and identify existing databases of pollutant emissions. This survey should determine who has access to the information in these databases and the current uses of the information.

- Conduct an "industry survey" to determine which companies are currently monitoring or estimating their emissions, and contact industry associations involved in chemicals management and emergency response programs. This survey provides an opportunity to assess the information currently available from industries on releases and transfers of pollutants and the estimated costs for its collection.

- Conduct a "background survey" of existing literature, previous studies undertaken, and available expertise at the national level relevant to the design of a PRTR system.

- Conduct a "stakeholder survey" to identify public and environmental interest groups, research institutes and industrial associations whose activities are relevant to the development of a national PRTR system.

- Compilation of the information gathered through these surveys into a National PRTR Infrastructure Assessment Report.

Key Considerations

- What reporting requirements covering releases and transfers of pollutants exist under the present regulatory system?

- Which government agencies collect data, keep databases, or conduct activities related to releases and transfers of pollutants to various environmental media?

- What emissions databases already exist? What is the current use of these databases? Who has access to the information in these databases?

- Are the existing data collection practices of various agencies consistent and/or compatible with each other? How suitable are they for integration into a single multi-media database?

- What sources of relevant expertise, previous studies and initiatives are available in the country that could be applicable to the design of a PRTR system?

Suggested Output

- National PRTR Infrastructure Assessment Report.

- For additional guidance please refer to the UNITAR document Preparing a National PRTR Infrastructure Assessment (Supplement 1).

Stage 3: Designing the Key Features of a National PRTR System

Objective

To make decisions on key features and characteristics of the national PRTR system in line with the established PRTR objectives.

A complete national PRTR system consists of several components or elements that need to be designed according to the national goals and objectives for the system. The experience of several countries that have implemented PRTR systems suggests that the different components or elements can be conveniently grouped into the following major clusters of design tasks:

I. Defining the scope of the national PRTR system;
II. Addressing the legal implementation of the national PRTR;
III. Developing data collection and management procedures; and
IV. Developing data analysis and dissemination procedures.

Suggested Tasks

I. Defining the scope of the national PRTR system

Defining the scope of the national PRTR system involves the following design tasks:

- selecting the list of chemicals for reporting;
- deciding to include point vs. non-point source emissions data;
- deciding which sectors to include (e.g., manufacturing, resource extraction, service industries, public sector, etc.);
- specifying reporting thresholds (e.g., facility size, chemical use levels, etc.);
- specifying exemptions from reporting requirements (if any);
- defining the data elements to be collected (e.g., facility identification/location, chemical identification, quantity and nature of releases/transfers, chemical use data, pollution prevention and recycling activities, etc.).

The decisions made in defining the scope of the PRTR system should be directly linked to the national objectives for the PRTR system. For example, if the goal is to get a comprehensive picture of all pollutant emissions, then authorities may decide to collect data for both point and non-point emission sources. If the goal of the PRTR is to target a specific sector such as manufacturing industries, then it may not be necessary to include non-point sources in the PRTR system. Similarly in regards to the chemicals list, if there are specific chemicals or chemical categories that are of concern in the country, the authorities will want to ensure that these are included on the list of substances to be reported.

The challenge in defining the scope of the national PRTR system is to consider practical issues such as feasibility and available resources while ensuring that the PRTR will yield the types and depth of information needed to serve the national objectives for the system.

II. Addressing the legal implementation of the national PRTR

The legal implementation of the PRTR system involves addressing the following tasks:

- ensuring the necessary legal authority for the PRTR;
- deciding how to integrate the PRTR with existing reporting requirements;
- deciding on mandatory vs. voluntary reporting; and
- establishing legal provisions for enforcement.

Various legal issues should be considered to ensure the necessary legal foundation for the PRTR system. These legal issues include establishing the legal authority for requiring reporting of PRTR data from industrial facilities and other sources, particularly if reporting will be mandatory. Opportunities for integrating PRTR reporting with existing legally mandated reporting requirements should also be explored. In addition to streamlining reporting and reducing administrative burden for both government and industry, this will help ensure that PRTR reporting will not be unnecessarily duplicative of existing requirements. Another important legal issue is the handling of data confidentiality claims by industry. Finally, discussions should be held regarding the enforcement mechanisms to be used to ensure compliance with PRTR reporting requirements.

III. Developing data collection and data management procedures

The development of data collection and management procedures involves addressing the following tasks:

- developing the reporting format to be used for data collection;
- developing the reporting instructions and estimation guides to be distributed to reporting facilities;
- specifying the PRTR system software;
- specifying the required computer hardware;
- specifying data collection procedures;
- specifying data quality control and verification procedures; and
- specifying procedures for data entry and database management.

In the process of designing a national PRTR system, the National Coordinating Team will have to develop and assign responsibilities for all data collection and management procedures involved in the operation of a complete PRTR reporting cycle. The NCT will also need to make decisions on which government agency will host the database and the resources and staff needed for its operation.

IV. Developing data analysis and dissemination procedures

The development of data analysis and dissemination procedures involves addressing the following tasks:

- specifying procedures for data aggregation;
- specifying the various types of analysis to be performed on PRTR data;
- specifying mechanisms for data dissemination and for providing access to the PRTR data; and
- specifying the intended applications and uses of PRTR data.

Among the tasks that need to be addressed in developing data analysis and dissemination procedures are identification of methodologies for extracting useful information from the raw PRTR data to support the objectives and applications that are planned for the national PRTR system. Decisions need to be made regarding the form and mechanisms through which the PRTR data will be made available and disseminated to the public and other interested parties. The power of the PRTR system to serve as an incentive for improved environmental performance depends on the transparency and public availability of the emissions data that are collected.

Key Considerations

- In thinking about the list of chemicals for the PRTR system, what types of chemicals or specific pollutants are of primary concern in the country? What existing national and international lists of chemicals could be used in developing a list of chemicals for the national PRTR?

- What types of point sources of pollution are of greatest concern? Are non-point sources of pollution (e.g., from agriculture, transportation activities, etc.) also of significant concern? Does the government have enough information to allow the estimation of emissions from these sources?

- What specific information or data elements need to be covered in the national PRTR? Aside from information describing releases/transfers of pollutants and their sources, what other information should be included to meet national goals (e.g. recycling methods, pollution prevention activities, etc.)?

- How can the experiences and lessons learned from existing data collection mechanisms and current reporting requirements be used to guide the development of appropriate data collection and handling procedures for each step of a PRTR reporting cycle?

- What types of analyses and applications need to be conducted on the PRTR data to achieve national policy goals?

- What PRTR data dissemination mechanisms are appropriate? What government agencies and sectors of the population would be interested in having access to and using PRTR data? How should access to the data be provided?

Suggested Output

- Complete design specifications for each feature or design element of the national PRTR system.

For further considerations and more detailed discussion on each of the key features and design elements of a national PRTR system, please refer to the UNITAR document *Designing Key Features of a National PRTR System (Supplement 2)*.

Stage 4: Conducting a PRTR Pilot Reporting Trial

Objective

To test the PRTR system on a limited scale to gather practical insights into operational challenges and as an input towards finalizing the national PRTR proposal.

The purpose of the pilot reporting trial is to test the PRTR system on a pilot basis to gain necessary experience directly applicable to the design of the national PRTR. The pilot trial experience can be used to refine the various design elements of the national PRTR system, and to gain concrete insights into the human and financial resources needed for its operation on a national scale. The data collected in the reporting trial also might be used to test the potential uses, analyses and applications that authorities are planning for the national PRTR system.

A number of specific planning and implementation issues need to be addressed in relation to a PRTR pilot reporting trial. These include: defining the scope of the pilot trial (e.g. by choosing the industry sample and region); ensuring that the necessary technical PRTR elements are in place for operating the trial; deciding what local authorities to involve; and establishing clear responsibilities for all operational tasks involved in the trial. Establishing a cooperative relationship and good communication with the participating facilities is important to ensure a successful reporting trial. Achieving effective coordination between central and regional authorities is also critical for success in this exercise.

The feedback from the pilot reporting trial experience can be extremely valuable to the National Coordinating Team in refining and improving the design of the PRTR system.

Suggested Tasks

Implementing a PRTR reporting trial involves the following tasks:

- Selecting a suitable region for the operation of the PRTR reporting trial;
- Selecting a representative sample of industrial facilities;
- Ensuring that all preparatory technical work is completed including specification of the chemicals list, data elements to be collected, software, hardware, reporting formats, reporting instructions, and other required infrastructure necessary to operate the PRTR reporting trial;
- Selecting government personnel and dividing roles and responsibilities for the operation of all activities involved in the PRTR reporting trial;

- Organizing a training workshop for government personnel on all aspects of emissions estimation as well as data collection and management procedures required for the reporting trial;
- Establishing a clear communication strategy for interacting with participating industries;
- Organizing a training session for participating industries to distribute materials and provide guidance on emissions estimation techniques;
- Providing assistance to reporting facilities on data estimation and report preparation;
- Collecting the completed reporting forms;
- Checking data quality, correcting errors, and submitting data to central authorities;
- Supervising all aspects of data collection, verification and entry into the database;
- Demonstration of planned policy applications and uses of the data collected during the trial; and
- Evaluating all aspects of the PRTR reporting trial and providing feedback to the National Coordinating Team and other relevant authorities.

Key Considerations

- Will the participation of industries in the reporting trial be voluntary or mandatory? What approach should be used by government to ensure participation (e.g. outreach or enforcement activities)?
- What level of training and types of assistance from government personnel will be needed by the participating industries in order to ensure correct estimation and reporting of PRTR data?
- What types of analyses will be performed with the reported data, how will the evaluation of reporting trial results be conducted, and how will feedback be provided to the national design effort?

Suggested Outputs

- Preparation of a PRTR Reporting Trial Report summarizing the experience gained and lessons learned from the exercise.
- Preliminary assessment of financial and human resource requirements to operate a PRTR system.
- A preliminary set of PRTR data that can be used to demonstrate intended policy applications and uses.
- Recommendations for revisions to the preliminary design of the PRTR system.

For a detailed discussion on the planning and implementation of a PRTR pilot reporting trial, please refer to the UNITAR document *Implementing a PRTR Pilot Reporting Trial (Supplement 3)*.

Stage 5: Finalizing the National PRTR Proposal

Objective

To prepare a final document which outlines the complete specifications of the national PRTR system to be submitted for approval by national authorities.

The *National PRTR Proposal* is a document that contains all of the design features of the PRTR system, as developed by the National Coordinating Team, including the technical specifications. The proposal may also include an action plan for implementing the PRTR system on a national scale.

Once completed, the national PRTR proposal is likely to undergo a review and approval process by high-level national authorities before the PRTR system can enter the implementation phase. Ideally, enough policy commitment from higher authorities should have been built during the PRTR design process to prevent any major obstacles to its approval.

Suggested Tasks

- Drafting of a National PRTR Proposal which should include the intended national objectives, the complete design specifications for the national PRTR system, institutional responsibilities for its operation, and a plan for its implementation at the national level; and

- Circulation and review of the National PRTR Proposal by key national authorities whose policy support is critical for final approval and implementation.

Key Considerations

- Who should be involved in drafting the National PRTR Proposal?

- What should be the structure and format of the National PRTR Proposal?

- What are some key policy figures that need to be kept informed of the progress of the National PRTR Proposal to maximize the chances for its approval and implementation?

- To whom should the draft proposal document be circulated for review and comments?

Suggested Output

- The final National PRTR Proposal document.

For a more detailed discussion, please refer to the UNITAR document *Structuring a National PRTR Proposal (Supplement 4)*.

Stage 6: Organizing a National PRTR Implementation Workshop

Objective

To hold a national workshop to secure policy commitment and launch an action plan for implementation of the national PRTR system.

Holding a National PRTR Implementation Workshop can be an effective way to finalize the PRTR design process and set the implementation phase into motion. This final workshop should serve to catalase broad policy support for the national PRTR proposal and initiate follow up actions. A well planned agenda and the active involvement of key leadership figures in the organization and facilitation of the workshop can be instrumental in this regard. The National Coordinating Team will be in the best position to judge which political figures and stakeholder representatives should be involved in the Implementation Workshop to achieve the required policy support and motivation to ensure timely implementation of the national PRTR system.

Suggested Tasks

- Identification of key participants, speakers, and policy figures to invite to the workshop;
- Development of the workshop agenda; and
- Holding the National Workshop on PRTR Implementation.

Key Considerations

- What are the intended outcomes of the workshop?
- Who should be invited to participate in the workshop?
- What is the role of international organizations in the workshop?
- How can the agenda and organization of the workshop be structured so that the intended workshop objectives will be achieved? In particular, how can the workshop be conducted so as to help secure broad policy support for the implementation of the National PRTR Proposal?

Suggested Outputs

- Workshop report endorsing the national PRTR proposal and laying out a plan for the implementation of the PRTR system.
- Broad consensus for implementation of the PRTR system at the national level.

For additional guidance on planning a national workshop, please refer to the UNITAR/IOMC document *Organizing a National Workshop on Chemicals Management and Safety: A Guidance Document.*

ANNEX I: List of Contacts

Annex I: List of Contacts

National PRTR Programmes:

USA
Ms Susan Hazen
Director, Environmental Assistance Division
US Environmental Protection Agency (7408)
401 M Street SW
Washington DC 20460
USA
TEL +1 202 260 10 24
FAX +1 202 260 22 19

Canada
Mr François Lavallée
Environment Canada NPRI
10th Floor, Place Vincent Massey
351 St. Joseph Blvd.
Hull Quebec K1A OH3
Canada
TEL +1 819 997 85 45
FAX +1 819 953 9542

The Netherlands
Dr Chris W.A. Evers
Ministry of Housing, Spatial Planning and the Environment
Rijnstraat 8
Postbus 30945
NL-2500 GX The Hague
Netherlands
TEL +31 70 339 46 05
FAX +31 70 339 12 98

United Kingdom
Stuart Wright
Room A5/01, Romney House
43 Marsham Street
London SW1P 3PY
United Kingdom
TEL +44 171 276 8137
FAX +44 171 276 8600

Australia
National Pollutant Inventory Task Force
Environment Protection Group
Environment Australia
40 Blackall Street
BARTON ACT 2600
Australia
TEL +616 274 1488
FAX +616 274 1230

Mexico
Mr Luis Sanchez-Cataño
Dirección General de Gestión y Información Ambiental
Instituto Nacional de Ecologia
Ave. Revolución 1425 Nivel 9
Col. Tlacopac San Angel, CP 01040
Mexico DF, Mexico
TEL +565 624 3470
FAX +525 624 3485

South Africa
Mr Willem Scott
Acting Director, Pollution Control
Department of Environmental Affairs and Tourism
Private Bag X447
Pretoria 001
South Africa
TEL +27 12 310 3654
FAX +27 12 322 6287

International Organizations

Organisation for Economic Cooperation and Development (OECD)
Ms Claudia Fénérol
Pollution Prevention and Control Division
Environment Directorate
OECD
2, rue André Pascal
F-75775 Paris CEDEX 16
France
TEL +33 1 45 24 17 63
FAX +33 1 45 24 78 76

United Nations Environment Programme/International Register for Potentially Toxic Chemicals (UNEP/IRPTC)
Mr James Willis
Director, Chemicals
IRPTC
Geneva Executive Center
1219 Chatelaine
Switzerland
TEL +41 22 979 91 90
Fax +41 22 797 34 60

United Nations Industrial Development Organization (UNIDO)
Dr Balasubramanyan Sugavanam
Senior Industrial Development Officer
UNIDO
Vienna International Centre
A-1400 Vienna
Austria
TEL +43 1 21 13 10
FAX +43 1 23 21 56

United Nations Institute for Training and Research (UNITAR)
Mr Achim Halpaap
Senior Programme Co-ordinator
UNITAR
Palais des Nations
CH-1211 GENEVE 10
Switzerland
TEL +41 22 798 84 00
FAX +41 22 733 13 83

World Health Organization (WHO)
Dr Judy Stober
EHE
World Health Organization
20, avenue Appia
CH-1211 GENEVE 27
Switzerland
TEL +41 22 791 36 50
FAX +41 22 788 42 18

World Wildlife Fund (WWF)
Mr Peter Hurst
Ms Barbara Rutherford
World Wildlife Fund
Avenue du Mont-Blanc
CH-1196 Gland
Switzerland
TEL +41 22 364 9111
FAX +41 22 364 5829

UNITAR

The United Nations Institute for Training and Research (UNITAR) was established in 1965 as an autonomous body within the United Nations with the purpose of enhancing the effectiveness of the United Nations through appropriate training and research. UNITAR is governed by a Board of Trustees and is headed by an Executive Director. The Institute is supported by voluntary contributions from governments, intergovernmental organizations, foundations and other non-governmental sources.

Since 1 July 1993, pursuant to General Assembly Resolution 47/227, UNITAR Headquarters have been transferred to Geneva. UNITAR has the following functions:

- To ensure liaison with organizations and agencies of the United Nations and with permanent missions accredited in Geneva, New York and other cities hosting United Nations Institutions and to establish and strengthen cooperation with faculties and academic institutions.

- To conduct training programmes in multilateral diplomacy and international cooperation for diplomats accredited in Geneva and the national officials, involved in work related to United Nations activities.

- To carry out a wide range of training programmes in the field of social and economic development which include:

    a. Training Programme in Multilateral Diplomacy, Negotiations and Conflict Resolution;

    b. Environmental and Natural Resource Management Training Programmes;

    c. Training Programme on Debt and Financial Management with special emphasis on the Legal Aspects;

    d. Training Programme on Disaster Control;

    e. Training Programme on Peace-Keeping, Peace-Making, and Peace-Building.

Street Address:	Postal Address:	Tel.: +41 22 917 1234
11-13 chemin des Anémones	UNITAR	
1219 Châtelaine	Palais des Nations	Fax: +41 22 917 8047
Geneva	CH-1211 GENEVA 10	
SWITZERLAND	SWITZERLAND	Website: www.unitary.org