EP

United Nations Environment Programme

MEDITERRANEAN ACTION PLAN

Regional meeting on PRTR and Pollution indicators

Ankara (Turkey), 16-17 June 2014

Progress of the national PRTR component of the ENPI South SEIS project

Delegates are kindly requested to bring their documents to the meeting

Supporting PRTR establishment in the framework of ENP SEIS project under the H2020 Initiative

Introduction

The "Pollutant Release and Transfer Register" (PRTR) is an environmental database or inventory of potentially harmful releases or transfer to air, water, and soil as well as waste transported off site for treatment or disposal. In addition to collecting data for PRTR from stationary sources, PRTRs are also designed to include estimates of releases from diffuse sources such as agriculture and transport activities. The development and implementation of a PRTR system adapted to national needs represents a means for government to track generation, release and the fate of various pollutants over time. A PRTR can therefore be an important tool in the total environment policy of a government and encouraging reporters to reduce pollution by implementation of cleaner technologies.

The implementation of the PRTR reporting system in the Mediterranean region is based on information of releases of a list of pollutants to water, air and land. UNEP/MAP has developed in the framework of MEDPOL Programme several tools including a software for supporting countries work to establish PRTR. Direct assistance was given in the past to several Mediterranean countries such as Turkey, Syria, Egypt and Morocco. The SEIS state of play report 2102, identified PRTR as a key activity to support data collection and sharing from industrial point sources. The PRTR exercise focused on the H2020 indicators for industrial pollution and is also meant to enhance as appropriate the coherence between reporting under the LBS protocol (NBB) with reporting under H2020.

Activities agreed in the framework of SEIS project are:
a) Support online PRTR, establishing national teams in ENPI South countries in setting up a PRTR system for the H2020 indicators on industrial pollution. This will include support to countries with training, missions as well as ensuring the necessary software and other elements needed for PRTR to be established effectively.
b) Regional workshops including (i) participation of H2020 SEIS project coordinators to assist basic training at June 2012 PRTR meeting organized by H2020 (CB/MEP) as well as (ii) holding of a regional workshop to exchange and disseminate the lessons learnt and to promote replication.

Expected outputs:
- PRTR established in some ENPI South countries on pilot basis

- Lessons learned and experiences shared among all countries in the Mediterranean

- Country capacity on PRTR enhanced in all ENPI South countries

The present report tries to give an overview of the activities implemented so far under the SEIS project with regards to its PRTR component. It is also meant to bring to the attention of MED POL FP and SEIS Project Focal point a number of lessons learnt, difficulties faced and some suggestions for future action with the view to successfully implement the project.

General structure of the projects

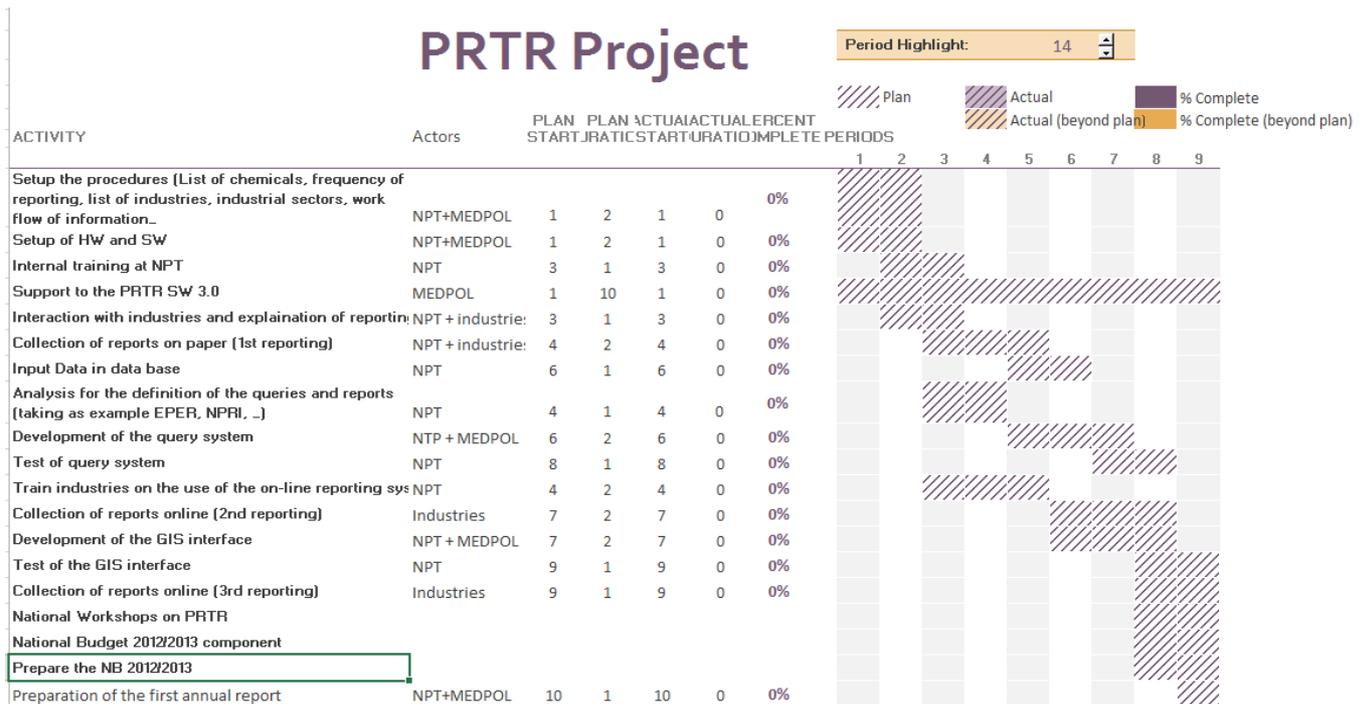**Common activities to all national projects**

This section summarizes the common activities carried out in the framework of the development of PRTR projects in different countries in South Mediterranean countries.

The period of the activities is from February 21, 2013 to May 2014.

The activities carried out for the PRTR implementation in the region is summarized as follows:

1. Selected 5 countries in which to support the development of PRTR pilot projects with particular attention to costal zones and river basins of interest to Mediterranean Sea.

2. Organized two specific training courses for selected participants (one in English and one in French) from all the countries identified by MED POL plus other Mediterranean countries on the concept of PRTR and the use of the MED POL software. These meetings have been organized in collaboration with Horizon 2020.

3. Organized a kick-off meeting, one per country selected. The goal of this meeting was to explain to all actors involved the meaning and objectives of PRTR, the different PRTR available in the world with particular reference to EPRTR, the SW tools involved for defining the data to be stored in PRTR and the web based application for the reporting system. In particular, for each meeting the following tasks were completed:

    a. Set up the agenda and the program in collaboration with the local team
    b. Prepare and give the necessary lectures on PRTR and train the participant for the use of the MED POL SW PRTR 3.0.
    c. Suggest and discuss with the national team procedures and general program for the project and a general Gantt chart.
    d. Support the local organizers to identify the industrial participants of the project

4. Followed remotely (using Skype, Team Viewer and emails) the national projects in the selected countries.

The following Gantt summarizes the structure of each pilot project and gives an overall view on the tasks to be performed, with indication of who is in charge of which task.

PRTR Project

Period Highlight: 14

Legend: Plan, Actual, % Complete, Actual (beyond plan), % Complete (beyond plan)

ACTIVITY	Actors	PLAN START	PLAN DURATION	ACTUAL START	ACTUAL DURATION	PERCENT COMPLETE
Setup the procedures (List of chemicals, frequency of reporting, list of industries, industrial sectors, work flow of information_	NPT+MEDPOL	1	2	1	0	0%
Setup of HW and SW	NPT+MEDPOL	1	2	1	0	0%
Internal training at NPT	NPT	3	1	3	0	0%
Support to the PRTR SW 3.0	MEDPOL	1	10	1	0	0%
Interaction with industries and explaination of reporting	NPT + industries	3	1	3	0	0%
Collection of reports on paper (1st reporting)	NPT + industries	4	2	4	0	0%
Input Data in data base	NPT	6	1	6	0	0%
Analysis for the definition of the queries and reports (taking as example EPER, NPRI, _)	NPT	4	1	4	0	0%
Development of the query system	NTP + MEDPOL	6	2	6	0	0%
Test of query system	NPT	8	1	8	0	0%
Train industries on the use of the on-line reporting system	NPT	4	2	4	0	0%
Collection of reports online (2nd reporting)	Industries	7	2	7	0	0%
Development of the GIS interface	NPT + MEDPOL	7	2	7	0	0%
Test of the GIS interface	NPT	9	1	9	0	0%
Collection of reports online (3rd reporting)	Industries	9	1	9	0	0%
National Workshops on PRTR						
National Budget 2012/2013 component						
Prepare the NB 2012/2013						
Preparation of the first annual report	NPT+MEDPOL	10	1	10	0	0%

Expected Output of the projects

Activities and expected output of each national project are summarized in the following table:

Activity	Expected Output
Identification of the tasks and preparation of the Gantt of the project with indication of the timing	Commented Gantt chart
Identification of the actors (industrial users in particular) and definition of the industrial sectors	List of persons involved, included the software expert in data base development and web application development
Organize training on the following topics: (i) PRTR project in general, (ii) PRTR in the world, (iii) PRTR web paper and web reporting system (iv) PRTR software tools.	A document, consistent with the Gantt chart, describing the program of the trainings and the schedule.
Definition of a set of procedures aiming at implementing PRTR in the selected country	List of chemicals, list of activities, list of facilities.
Set up the Web site with PRTR 3.0 SW, data base and WebGIS interface.	SW up and running locally
Development of the query system.	Query system developed in MS Access
Presentation of the summary of the data collected during the project.	Document with the statistical analysis of the collected data.

The performance indicators of each project are the following:

- PRTR network operational (yes/no)
- Number of national experts trained
- Number of industrial partners involved in different sectors
- List of chemicals (number and percent of CAS number chemicals)
- N. of reports filled in by industrial partners

List of milestones and deliverables

This section contains the list of milestones and deliverables associated with each national project.

	Milestones	Deadline
1	List of industries, chemicals, sectors,…	
2	System running, reporting web application tested and running, data center OK	
3	Collection of a representative number of reports on paper	
4	Preparation of a document with all the queries desired	
5	Reports on paper collected	
6	Data input finished. Data base complete	
7	Query system done and installed	
8	GIS interface ready	
9	data available on-line at the web site	
10	Preparation of annual report. End of the project	

	Deliverables	Date due
1	Document with the procedure, list of chemicals, list of industries, sectors,	
2	Document describing the status of the project in terms of number of reports collected on paper, number of facilities reporting, number of chemicals with data	
3	Document of analysis for the desired queries and reports	
4	Report on the number of industries and the number of paper report collected	
5	Document of version 1 of query system	
6	Document of the GIS interface	
7	Report on the number of industries and the number of paper + on-line report collected	
8	Annual report on the status of environment	

Status of the project in the selected countries

In this section, the status of the project in the selected countries is reported. The following table reports countries listed in chronological order of project's kick-off date.

Country	Status
Egypt	Kickoff meeting and training on the use of SW and procedures is done. SW is fully operational (Web interface, DataBase and WebGIS interface) and used by industrial partners. Procedures are established (list of chemicals and facilities). Collection of reports is proceeding using the Web application installed locally.
Tunisia	Kickoff meeting is done and local team trained in the use of the SW. A training platform was made available to the local team for the training of industries. Involvement of industrial partners is only partial and should be improved. There is no evidence on the number of reports collected so far. The SW has not been installed locally.
Lebanon	Kickoff meeting and training on the use of SW and procedures is done. The right number of industrial partners have been identified. The SW is operational and the local system engineer is in control of it. Procedures are established (list of chemicals and facilities). Collection of reports is proceeding using the Web application installed

	locally.
Morocco	Kickoff meeting and training on the use of SW and procedures is done. SW has been transferred but not installed. Procedures are established (list of chemicals and facilities) and the participation of industries is good in number and quality. The national team is discussing some issues related to the reporting system. Translation of the SW in French is required.
Palestine	Kickoff meeting and training on the use of SW and procedures is done. SW has been installed and is operational. Industrial partners were present at the meeting and have been trained using a remote training platform. Procedures are under development (list of chemicals and facilities).
Israel	Israel has already a PRTR Law under implementation. The pilot in Israel consisted on supporting Israel to implement the PRTR law and analyze the links and interoperability between NBB and PRTR system. The pilot is ongoing

Lessons learned

The activity performed so far in the project allowed us to learn some lessons in different topics.

Procedures
The main results in developing procedures are the following:
- **Legal framework missing**. This is probably the most relevant lesson learned during the project, which is common to all national projects. The lack of a clear, simple and specific legal framework, specially constructed around the concept of PRTR is main problem in the future development of a national PRTR system. Suggestions were given during the meeting to other PRTR models as starting point for the national law, considering carefully the concept of list of chemicals and thresholds.
- **Industrial participation**. This is another crucial topic that has been noticed in several projects. PRTR is mainly based on industrial releases; therefore the involvement of a large number of industrial partners coming from different sectors is important to highlight difficulties in the developed procedures. Industrial partners are participating to the project at a volunteer basis; therefore it is essential to motivate their participation.
- **Public and open data**. Another common concern coming from the industrial partners on the project is the fact that PRTR data are public. It has been explained that there should be no secrets, but it is possible to include in the law an article about privacy of the data, such as that of the E-PRTR.
- **List of chemicals**. In the definition of the list of chemicals we have noticed the tendency of including indicators (such as BOD, COD,) and non conventional chemicals (CD containing compounds, NOx, etc) This tendency should be avoided and the list should contain the majority of chemicals defined as pure chemicals (with the CAS number). Suffice to notice the list of chemicals of other national PRTR to identify this need. In fact, it is always possible to estimate an indicator form pure

components, but it is very difficult to back calculate pollution load of a specific chemical from indicators.

- **Emission factors**. Perhaps the most obvious source of data for PRTR are emission factors. One of the main problem related to the quality of the data stored in PRTR is the correct use of emission factors. IPCC and UNIDO emission factors for gases are normally quite reliable. Emission factors for water are less available and, when available, generally less reliable. Some country has compiled a list of emission factors validated at national level, but in general, factors from literature are taken, which do not consider the local peculiarities.

IT infrastructure

The main results in implementing the IT infrastructures are the following:

- **Software engineers**. In some cases some difficulties have been encountered in the installation of the SW. When this happened the problem were solved using a remote access to the server for fixing the problems. At the end of the project it should be necessary to take the issue of maintenance into consideration.
- **SW developer**. The SW has been distributed with the source code and a technical manual describing in details each program line and each table of the data base. The SW is written in C# and uses the framework .NET. It is crucial for the countries to have available a .NET developer for any modification of the SW that will be required in the future.
- **HW availability and backup**. It is necessary to design carefully the HW holding the SW and defining a backup procedure for the SW and, more important, for the data base.

What's next

At the present stage of the project, some other activities should be carried out to complete the pilot project phase. In particular:

- IT infrastructure should be installed in some countries (Tunisia and Morocco)
- Analysis of the different lists of chemicals implemented in the pilot projects should be compared with other PRTR list of chemicals, to highlight differences and similarities.
- Analysis of the statistical results of the reports collected.
- Investigate the possibility to export data in XML files and transfer data into NBB