# SYRIAN ARAB REPUBLIC MINISTRY OF STATE FOR ENVIRONMENTAL AFFAIRS

2nd UNEP Global Mercury Partnership Waste Management Partnership Area Meeting (Tokyo, 9-10 March, 2010)

Eng. Eyad Ibrahim Syrian Contact Person of Global Mercury Programme

#### Introduction

Syrian Arab Republic locates on the eastern Mediterranean Coast, and it is 185,000 square kilometers in size. Its population is about 21,000,000. Arabic language is the official language, and the system of government is a republican rule.

\*Geographically, Syria is divided into four regions: coast, mountains, inland and the

desert.

Administratively, it is divided into 14 governorates, including cities and villages. In respect of production sectors in Syria, they are mainly the public, private and common sectors.

In accordance to the Syrian interests in the various environmental issues, Syrian Arab Republic has signed many of the international environmental Conventions such as Basel, Rotterdam and Stockholm, which are concerned with the sound management of chemical substances.

In this frame and in response to the UNEP Chemicals exerted efforts to achieve the sound management of mercury and its compounds, Syria has signed a Memorandum of Understanding with the UNEP Chemicals, hereby Syria has executed a national inventory project on mercury uses and releases.

Through the project we could identify mercury releases sources, and we have made an estimated accounts for the mercury uses and releases to the environment depending on the input and output default factors in the UNEP toolkit, and the overall releases were as follows:

Input amount of mercury	Output amount of mercury releases to the various media
By using the minimum input factors	By using the minimum factors
7535.282 kg Hg/year	3691.773 kg Hg/year
By using the maximum input factors	By using the maximum factors
24814 kg Hg/year	17084.72 kg Hg/year

There is no a separate system for the general wastes in Syria, where the wastes are gathered in the same containers then they are deposited in the formal landfills (10 % of those wastes are incinerated informally) without using a separate system for the various kinds of those wastes except for the medical wastes, which are gathered from their sources and incinerated in special incinerators.

Total amount of general wastes = 2,422,560 ton/year.

Informal waste incineration = 242,265 ton/year (This amount is 10 % of the total amount of general wastes).

medical waste = 4500 ton/year

In order to achieve the mercury containing wastes sound management, as a first step, we should begin to identify mercury containing wastes sources as follows:

- Chlor-alkali production with mercury-technology.
- •Mercury-containing thermometers.
- Light sources with mercury.
- Batteries with mercury.
- Dental mercury-amalgam fillings.
- Manometers and gauges with mercury.
- Cosmetics and related products with mercury.

These substances are dumped with the municipal wastes which will be turned to become a hazardous wastes.

Through the project and according to UNEP toolkit, we have calculated the estimated amounts of mercury releases as follows:

- Chlor-alkali production with mercurytechnology: 1600 kg/year
- Mercury-containing thermometers750 kg/year
- Light sources with mercury: 60 kg/year
- Batteries with mercury: 18 kg/year

- Dental mercury-amalgam fillings:
   3470 kg/year.
- -Manometers and gauges with mercury 1465 kg/year.
- •Cosmetics and related products with mercury: to be investigated in the action plan

These results needs to be investigated in the next step through developing of inventory.

## Procedures to reduce mercury emissions and wastes:

- •We have prepared a national plan to reduce or prevent mercury releases.
- We have issued in cooperation with the Ministry of Health generalizations on preventing import mercury containing cosmetics and medicines.
- >We are to prepare an assistance application form from Jica, Japan to replace mercury cells technique to environmentally safe one.
- >A master plan has been adopted for the hazardous wastes management in Syria.

## Procedures to reduce mercury emissions and wastes:

- A profile for the hazardous wastes sound management has been adopted in Syria.
- In the time being, we are preparing a project proposal on mercury wastes sound management, in which we will be able to have an accurate data on that and identify the right deposal way from these wastes.

#### Project goal:

- 1. Achieving mercury and its compounds containing wastes sound management.
- 2. Reducing emissions and the impact of hazardous mercury containing wastes on human beings and environment.
- 3. Raising awareness.
- 4. National capacity building.

#### Project activities:

- 1. Developing the inventory of mercury and its compounds containing wastes through expansion of inventory process to combine the public, private and common sectors.
- >Preparing forms for gathering data on the type and quantity of mercury containing wastes which are obtained out of the various bodies' activities and the manner of dealing with such wastes (separation, gathering, transport, treatment, storage and disposal).
- >Gathering and analyzing information.
  >Identifying work priorities and national meeds.

#### Project activities:

- 2. Developing separating system
- 3. Capacity Building
- 4. Raising awareness on health and environmental risks of mercury and its compounds and Encouraging to use alternatives
- 5. Laboratories developing

#### National Challenges:

- > Lack in awareness of mercury risks.
- >Wastes separation techniques are not available.
- Mercury containing wastes separation techniques are not available.
- >alternatives are not available.
- Lack in the needed funding to execute the national plans for reducing the releases.

#### Conclusion:

Environment and human being protection from the multiple pollution needs to combine the national and international efforts to develop binding regulations to reduce mercury emissions.

We hope the upcoming negotiations; which will be discussed within 7-11 June 2010 in Stockholm, Sweden on preparing a global legally binding instrument on mercury, will be successful to put a comprehensive regulation on mercury and covers the relevant issues to reduce mercury releases.

