



**Inception Workshop: Mercury Storage and Disposal Project in  
Mexico and Panama**

*October 10-11, 2012, Holiday Inn Hotel, Clayton, Panama City*

**FINAL REPORT**



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## ACRONYMS

|                   |   |
|-------------------|---|
| <b>AAUD</b>       | Autoridad de Aseo Urbano y Domiciliario. <i>Public Cleansing Authority</i> . Panama.  |
| <b>ACP</b>        | Autoridad del Canal de Panamá. <i>Panama Canal Authority</i> . Panama.  |
| <b>AMEXPILAS</b>  | Asociación Mexicana de Pilas. <i>Mexican Battery Association</i> .  |
| <b>AMUPA</b>      | Asociación de Municipios de Panamá. <i>Panama's Municipalities Association</i> .  |
| <b>ANA</b>        | Autoridad Nacional de Aduanas. <i>National Customs Authority</i> . Panama   |
| <b>ANAM</b>       | Autoridad Nacional del Ambiente. <i>National Environment Authority</i> . Panama.  |
| <b>ANCON</b>      | Asociación Nacional para la Conservación de la Naturaleza. <i>National Association for Nature Conservancy</i> . Panama.                 |
| <b>ANIQ</b>       | Asociación Nacional de la Industria Química. <i>National Chemical Industry Association</i> . Mexico.                                    |
| <b>ASEP</b>       | Autoridad de los Servicios Públicos. <i>Public Services Authority</i> . Panama  |
| <b>ASGM</b>       | Artisanal and small-scale gold mining   |
| <b>CAMIMEX</b>    | Cámara Minera de México. <i>Mexican Mining Chamber</i> .  |
| <b>CANACEM</b>    | Cámara Nacional del Cemento. <i>National Cement Chamber</i> . Mexico.   |
| <b>CANACINTRA</b> | Cámara Nacional de la Industria de Transformación. <i>National Transformation Industry Chamber</i> . Mexico.                            |
| <b>CANAME</b>     | Cámara Nacional de Manufacturas Eléctricas. <i>National Electrical Manufacturing Chamber</i> . Mexico.                                  |
| <b>CANIFARMA</b>  | Cámara Nacional de la Industria Farmacéutica. <i>National Pharmaceutical Industry Chamber</i> . Mexico.                                 |
| <b>CENICA</b>     | Centro Nacional de Investigación y Capacitación Ambiental. <i>National Center for Environmental Research and Training</i> . Mexico.     |
| <b>CFE</b>        | Comisión Federal de Electricidad. <i>Federal Electricity Commission</i> . Mexico.   |
| <b>CIIMET</b>     | Centro de Investigación e Información de Medicamentos y Tóxicos. <i>Medicament and Toxics Research and Information Center</i> . Panama. |
| <b>CSS</b>        | Caja de Seguro Social. <i>Social Security Savings</i> . Panama  |
| <b>CYDSA</b>      | Celulosa y Derivados, S.A. <i>Cellulose and Products</i> . Mexico.  |
| <b>DIPROCA</b>    | Dirección de Protección de la Calidad Ambiental. <i>Directorate for Environmental Quality Protection</i> . Panama.                      |
| <b>IKIMP</b>      | Integrating Knowledge to Inform Mercury Policy.   |
| <b>INECC</b>      | Instituto nacional de Ecología y Cambio Climático. <i>National Institute for Ecology and Climate Change</i> . Mexico.                   |
| <b>INEGI</b>      | Instituto Nacional de Estadística y Geografía. <i>National Institute for Statistics and Geography</i> . Mexico.                         |
| <b>LAC</b>        | Latin America and the Caribbean.  |
| <b>MIDA</b>       | Ministerio de Desarrollo Agropecuario. <i>Agricultural and Livestock Development Ministry</i> . Panama.                                 |

|                 |  |
|-----------------|--|
| <b>MICI</b>     | Ministerio de Comercio e Industria. <i>Ministry of Commerce and Industry.</i> Panama.  |
| <b>MINSA</b>    | Ministerio de Salud. <i>Ministry of Health.</i> Panama   |
| <b>MOH</b>      | Ministry of Health. Panama.  |
| <b>NGO</b>      | Non-Governmental Organization.   |
| <b>PEMEX</b>    | Petróleos Mexicanos. <i>Mexican Oil Company.</i>   |
| <b>ROLAC</b>    | (UNEP's) Regional Office for Latin America and the Caribbean.  |
| <b>SEMARNAT</b> | Secretaría de Medio Ambiente y recursos Naturales. <i>Ministry of Environment and Natural Resources.</i> Mexico.   |
| <b>SGM</b>      | Servicio Geológico Mexicano. <i>Mexican Geological Service.</i>  |
| <b>SAGARPA</b>  | Secretaría de Agricultura, Ganadería, Desarrollo Rural, Pesca y Alimentación. <i>Ministry of Agriculture, Cattle, Rural Development, Fisheries and Food.</i> Mexico. |
| <b>UNEP</b>     | United Nations Environment Programme.  |
| <b>UTP</b>      | Universidad Tecnológica de Panamá. <i>Panama's Technological University.</i>   |
| <b>YMCA</b>     | Young Men's Christian Association.   |

## INTRODUCTION

### **Workshop objectives**

The purpose of the workshop, as it is shown in the agenda (Annex I) was to ensure a good understanding of the objectives and scope of the mercury storage and disposal project in Mexico and Panama, as well as the expected project's outputs and outcomes. The project aims to promote the environmentally sound storage and disposal of mercury. The main outcome of the project will be a National Action Plan on the storage and disposal of mercury in both countries. The workshop counted with the participation of an international consultant, who presented the framework for the inventory of storage facilities, legislative/regulatory infrastructure, the "Suggested Framework for Decision Making for the Safe Management of Surplus Mercury", guidelines in drafting a national action plan and other relevant information needed to implement the project.

### **Participants and organization.**

25 representatives from both countries Mexico and Panama participated in this meeting, including representatives from Governments, NGOs, industry and other relevant institutions, such as the Stockholm Convention Regional Centres in Mexico and Panama; the full list of participants is attached to this document in Annex II.

Organization of the workshop was carried out by UNEP Chemicals and UNEP's Regional Office for Latin America and the Caribbean (ROLAC), with the support of YMCA-Panama.

## WORKSHOP DEVELOPMENT

### **1. Welcome and opening words**

The workshop opened with the welcome words from Ms. Mara Angelica Murillo Correa, ROLAC's Regional Deputy Director; Mr. Milciades Bravo, Panama's Environmental Health Deputy Director; and Ms. Lourdes Álvarez, Director for YMCA Panama. Ms. María Inés Esquivel, representing the MOH and the University of Panama (CIIMET) was appointed as Chairperson for the workshop.

### **2. General overview and project's international context**

Dr. Desiree Montecillo Narvaez, UNEP Chemicals Division's programme official made an introductory presentation entitled "Mercury: world policy, immediate action", explaining the reasons why mercury is considered a global concern. The presentation described the international context in which the project is developed including the process of intergovernmental negotiations of the legally binding instrument on mercury worldwide, as well as the activities that are carried out within the framework of UNEP's Global Mercury Partnership.

### **3. Presentation of mercury initiatives and projects**

Víctor Javier Gutiérrez Avedoy, representative of the Ministry of environment and natural resources of Mexico, presented "Actions on mercury [in Mexico]", describing the different activities and studies that have been conducted in Mexico. These include monitoring activities in different matrices such as sediments, landfills, fish, or atmosphere. He also presented a comprehensive comparative summary for total mercury measurements in ambient air at different sites in the Mexican Republic, as well as the "Global Mercury Observation System" project. He also informed on the Mercury Market in Mexico report (2008), which stated that during the period 2001-2007 Mexico was a net mercury importer. Then he introduced the mercury emissions inventory in Mexico (base year: 2004), showing that the main source for mercury releases was gold extraction and primary processing (mercury as a by-product). Finally, he presented an assessment study on primary and secondary mercury offer in Mexico, as well as the country's participation in the current negotiations on the international legally binding instrument on mercury.

Later on, Nayhely Pérez Báez (Directorate General of mining promotion, Secretariat of Economy of Mexico), briefly presented the current situation on mercury mining in Mexico, indicating that mercury mining is legal in Mexico. ASGM importance in Mexico is considered from low to medium when compared to large scale gold mining, but the rise in gold price could also increase demand, exploitation and commercialization of mercury. It was reported that there is primary mercury production conducted by small-scale miners, mainly in the State of Querétaro, although there are no official production data, which in any case is very limited. Aware of this problem, the Government carries out activities to achieve that this mining is carried out in a sound and responsible manner regarding health and the environment, and at the same time searching for economic alternatives. It is worth highlighting the promotion of alternate technologies for roasting ovens for mercury containing ore, in order to prevent mercury vapours from being inhaled by workers and released into the atmosphere.

Then María Inés Esquivel presented the "Preliminary status of mercury in Panama", reporting that a mercury releases inventory was completed in 2008 according to which the commercial and health sectors are the main sources for mercury containing waste in Panama. She also reported that Panama does not manufacture mercury containing products, so the life cycle approach is applied only to the use and final disposal stages. As for the collection and final disposal stages, waste management is very limited throughout the national territory. She also presented the current regulatory framework which includes more than 40 general legal instruments, relevant in addressing the import, use, emissions, provision and storage of mercury in Panama. Finally, she explained a proposed action plan whose purpose is to protect health and the environment from exposure to mercury risks. The goal of this Plan is to reduce mercury emissions at different sources over a period of 6 years. The Plan has not been implemented so far. At the conclusion of the presentation, Mr. Augusto Mendoza, Panama consultant for the project, suggested the need for mechanisms to reach the public, as the country only deals with issues that most impact and appear in the media.

#### **4. Highlights of the LAC mercury storage options study**

After the presentations from the parties were completed, the international consultant Gustavo Solórzano presented the main results of the "Options Analysis and Feasibility Study for the Long Term Storage of Mercury in Latin America and the Caribbean". Its main objectives are the collection of information on the current status of issues related to mercury and to provide recommendations to LAC countries for the safe management and long-term mercury storage. One conclusion is that except for Mexico and Chile, LAC region is more an importer than an exporter, although this condition may change in the near future, with the increasing trade of mercury in the region. A point to be highlighted is the regulatory framework improvement in various LAC countries, and finally, that the landfills are not option for elemental mercury, being liquid and difficult to stabilize. At the end of the presentation, a series of recommendations was given, including the implementation of a mercury chain of custody or an integrated program involving all authorities, NGOs, the private sector, etc.

This presentation gave rise to a discussion among participants, where Ms. Narvaez stated that while stabilization technologies have been updated after the preparation of the study, one of its main contributions is the analysis of import-export flows in the region.

The delegate from Mexico/CENICA coincided with the findings of the study, although he stressed that there is no adequate infrastructure to meet the needs, and that a process of

strengthening technical capacities is necessary. He also alluded to the potential problems regarding the funding for the different options. The Chair added that some of the identified options would hardly apply in Panama, due to the conditions of the water table as well as the lack of technical capabilities. But she considered interesting the temporary storage options reported (e.g. in military bunkers), and the stabilization and/or possible export alternatives. The MIDA representative also welcomed the study and suggested the importance of having a good national diagnosis in order to design the best solution for the country.

The MICI representative suggested the creation of a Government Committee in Panama for the approval of a rule on mercury, while other participants pointed out that this had been proposed earlier but was unsuccessful because of several reasons. The representative of the National Assembly emphasized the importance of awareness raising among the politicians, as well as having a good national diagnosis. NGOs recalled that their organizations can help in creating such awareness.

## **5. Glossary of terms (terminology)**

The international consultant continued with a presentation on the terminology to be considered in the development of the project. This methodology is based on a document originally written in English, which includes some of the existing definitions in the framework of the Basel Convention. In the region there is some debate regarding some Spanish terms, such as *waste vs. residues*; *waste management vs. waste handling or elimination vs. disposal*. It was recommended that the project will serve to further development of terminology in Spanish. Panama suggested organizing a small workshop to specifically discuss terminology matters.

## **6. A suggested framework for decision making for the safe management of mercury**

At agenda item #6, the international consultant presented the "Suggested framework for decision making for the safe management of mercury", which consists of four stages: important initial actions; assess basic management options; choosing between technical concepts; and enable implementation. Representatives of both countries indicated that although this framework is difficult to apply fully, both due to the lack of time and resources, it can be a good tool as a reference framework, which should be adjusted according to the circumstances in each country.



## **7. Project mandate, background, objectives and expected outcomes**

Ms. Desiree Narvaez presented the background, mandate, objectives, activities and expected outcomes of the mercury storage and disposal project in Mexico and Panama. Within the background it is worth to mention the storage options study in LAC, the projects carried out in 2011 in Argentina and Uruguay, or the workshop on mercury management which took place in Brasilia in May 2012. Main activities of the project include (i) study and analysis of the possible places for temporary storage in the country; (ii) revision of the regulatory framework and the mercury emissions inventory; (iii) establishment of support to decision making processes; (iv) assessment of basic management options; and (v) development of a national action plan on storage and disposal. It was mentioned that some of these activities can be conducted in parallel.

## **8. Project activities and expected outputs**

### **a) Inventory of possible temporary storage locations for mercury storage**

The international consultant initially presented a methodological framework for this activity, aimed at obtaining a list of locations for the possible temporary storage in each country, and an inventory of current mercury/hazardous waste treatment facilities, including waste management practices. After the experience in Uruguay and Argentina, tools to identify and classify the possible installations were presented, and some methodological concerns raised by the participants regarding the ranking criteria were addressed. It was recommended to include the geographical coordinates of the different facilities, and take into account any other factor that would prevent a place identified as technically ideal.

### **b) Regulatory framework**

The consultant presented the methodology prepared to review the regulatory framework, whose objective is to obtain a diagnosis on legal and regulatory instruments at the local, national, regional and international levels that might affect the storage and disposal of mercury. For this purpose he showed as an example a matrix to identify the legal framework in the various related fields (emissions, import/export, marketing, treatment/recycling, disposal, etc.), and how it was applied in Argentina and Uruguay.

### **c) Process for decision-making / evaluation of basic management options**

Starting from the reference framework presented the previous day, the consultant developed the process for decision-making, discussing the stages of basic management

options and including several examples on technical options for mercury waste treatment, stabilization and storage developed in Argentina, Korea, Mexico and Germany. In the discussion that followed the presentation, the CENICA representative asked if some safety factors are modifiable/compensated by engineering systems, e.g., distance to flood plains. The SGM representative of Mexico commented that this could effectively be done, but the financial implications of those options must also be considered, so it is better to try to locate facilities at the most suitable location from the physical point of view. Both Panama and Mexico shared a number of concerns such as the need to define each institution's responsibilities and take into account the social factor regarding the public rejection to these facilities, especially among nearby populations. In terms of commercial/investor interest in this type of facility, it was commented that it will depend largely on whether there is a legal framework requiring building this type of installation. Ms. Narvaez reminded the participants that any technology used for mercury treatment or storage must be validated by the authorities of each country.

#### d) Development of national plans of storage and disposal end of mercury

Finally, the consultant presented the guidelines for the elaboration of a National Action Plan for the environmentally sound storage and disposal of mercury and mercury waste. The guidelines include objective definition, situational analysis, consideration of the regulatory framework, stakeholders' participation, as well as the suggested items to be included in the Plan. UNEP emphasized the need to comply with the timeframe established to develop each country's Plans.

### **9. Working groups: work plans by country and joint calendar**

A working group was formed for each country, in order to prepare a draft of a national work plan corresponding to the project development, taking into account the necessary activities and expected outputs. A representative was designated to present the work plan for each country. Mexico presented an eighth-month work plan defining a series of activities, dates, resources, and responsible bodies. The work plan is attached as Annex III to this report.

A similar presentation was carried out by the representative of Panama, who explained his country work plan (see Annex IV). This plan envisages holding several meetings in different working groups, including other actors who did not attend the workshop, and a great final validation workshop from which the draft national action plan would be prepared. Panama representatives discouraged the creation of a Committee, since this is not functional, and previous experiences show that working groups are best with formal

designation of its representatives. As regards the calendar, it was recommended to Panama to set flexible deadlines in order to have a more realistic work plan.

The following dates were established for both countries:

- interim report: March 2013
- draft final report: 15 June 2013 (in English and Spanish)
- workshop results: 3-4 July 2013
- final report: 30 August 2013

#### **10. National reports and workshop closure**

As a last item in the workshop, "National reports: format, structure" was presented by the international consultant, where he explained the format and structure of the national reports to be submitted by each country.

Finally, UNEP thanked the active participation of both countries' representatives.

## ANNEXES

### Annex 1. AGENDA

**Inception Workshop**  
**Mercury Storage and Disposal Project in Mexico and Panama**  
**October 10-11, 2012, Holiday Inn Hotel, Clayton, Panama City**

**OBJECTIVES AND DRAFT AGENDA**

#### **A. Objectives of the Inception Workshop:**

(a) The meeting was aimed at gaining a better understanding and role clarification on the mercury storage and disposal project objectives, design, outputs and outcome. The project aims to promote the environmentally sound storage and disposal of surplus mercury in Mexico and in Panama. The main outcome of the project is a national action plan on mercury storage and disposal in Mexico and Panama.

(b) The international consultant presented the framework for the storage facilities inventory, legislative/regulatory instruments, the “Suggested Framework for Decision Making for the Safe Management of Surplus Mercury”, guidelines in drafting a national action plan and other relevant information needed to implement the project.

#### **B. Operating Details:**

(a) Participants: representatives from the governments, NGOs, industry, and other relevant stakeholders in Mexico and Panama.

(b) Secretariat: the consultant and UNEP Chemicals; UNEP ROLAC; representatives from the Stockholm Convention Regional Centres in Mexico and Panama, YMCA-Panama.

(c) Methodology: A chair will be nominated by the participants. The document “A suggested framework for decision making for the safe management of surplus mercury” will be used as a guide for the project. An open discussion will take place

after every agenda item to be presented. Action points after every item will be noted and will be further discussed and summarized in the afternoon of day 2.

### C. Provisional agenda

| <b><i>Day 1 - October 10, 2012</i></b> |  |   |
|--|--|---|
| <b>Time</b>                            | <b>Item</b>  | <b>Lecturer /Responsible</b>                                  |
| 8.30                                   | Participant's register   |   |
| 9.00                                   | 1. Opening and welcoming   | Panama Government, UNEP<br>ROLAC representatives              |
| 9.15                                   | 2. General overview and project's international context  | UNEP  |
| 9.30                                   | 3. Initiatives and mercury projects presentations  |   |
|  | 3.a. Initiatives and mercury projects in Mexico  | Mexico representative   |
|  | 3.b. Initiatives and mercury projects in Panama  | Panama representative   |
| 10.45                                  | Coffee break   |   |
| 11.15                                  | 4. Presentation of highlights of LAC mercury storage project options analysis study and its relevance to the project         | UNEP's International consultant, all (discussion)             |
| 12.00                                  | 5. Presentation of the draft 7th version of the glossary of terms (terminology)  | UNEP's International consultant                               |
| 13.00                                  | Lunch  |   |
| 14.00                                  | 6. Presentation of a suggested framework for decision making for the safe management of redundant mercury (IKIMP Initiative) | UNEP's International consultant                               |
| 15.00                                  | 7. Project mandate, background, objectives, relevance to INC process; expected outcome                                       | UNEP, all (discussion)  |
| 15.30                                  | Coffee break   |   |
|  | 8. Project Activities and expected output  |   |
| 16.00                                  | 8.a. Survey and analysis of possible temporary storage locations in the country  | UNEP's International consultant<br>+ Mexico & Panama comments |
| 17.00                                  | 8.b. Review of regulatory framework  | UNEP's International consultant<br>+ Mexico & Panama comments |
| 18.00                                  | Closure of Day 1   | Chair   |
|  |  |   |
| <b><i>Day 2 - October 11, 2012</i></b> |  |   |
| 9.00                                   | Recap of day 1 discussion  | UNEP  |
| 09.30                                  | 8.c. Establishing decision-making process; actors and inter-institutional committees   | UNEP's international consultant,<br>all                       |
| 10.00                                  | Coffee break   |   |
| 10.30                                  | 8. d. Assessing basic management options   | UNEP's international consultant,<br>all                       |
| 11.30                                  | 8. e. Developing national mercury storage and disposal action plan   | UNEP's international consultant,<br>all                       |
| 12.30                                  | Lunch  |   |
| 14.00                                  | Drafting of project work plan by country   | Mexico & Panama national teams                                |
| 15.30                                  | Coffee break   |   |
| 16.00                                  | Presentation of project work plan by country   | Mexico & Panama national teams                                |

|       |   |                                 |
|-------|---|---------------------------------|
| 17.00 | National final reports: format, structure | UNEP's International consultant |
| 17.30 | Closure of the meeting                    | Panama & UNEP representatives   |

## Annex II PARTICIPANT'S LIST

| Country | Name                      | Organization                                      | Area                                  | E-mail   |
|---------|---------------------------|---|---------------------------------------|--|
| Mexico  | Víctor Gutiérrez Avedoy   | Instituto Nacional de Ecología y Cambio Climático | CENICA/INECC                          | <a href="mailto:javedoy@ine.gob.mx">javedoy@ine.gob.mx</a>                       |
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| Mexico  | Nayhely Pérez             | Secretaría de Economía                            | Dirección General de Promoción Minera | <a href="mailto:Nayhely.perez@economia.gob.mx">Nayhely.perez@economia.gob.mx</a> |
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| Panama  | José Polanco              | ANCON   | Proyectos                             | <a href="mailto:ipolanco@ancon.org">ipolanco@ancon.org</a>                       |
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| Panama  | Virilio Solís             | Autoridad de Aseo Urbano y Domiciliario           | Operaciones                           | <a href="mailto:vs@hc.com.pa">vs@hc.com.pa</a>                                   |
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| Country | Name                | Organization                                       | Area  | E-mail   |
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| Panama  | Sintia Cerrud       | Ministerio de Desarrollo Agropecuario              | Laboratorio   | <a href="mailto:cerruds@yahoo.es">cerruds@yahoo.es</a>                               |
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| Country | Name              | Organization                    | Area                                | E-mail   |
|---------|-------------------|---------------------------------|-------------------------------------|--|
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**Annex III: WORK PLAN FOR PROJECT IMPLEMENTATION – MEXICO**

OCTOBER 2012 – JUNE 2013

| <b>Activities</b>   | <b>Timeframe</b> | <b>Resources</b>                                   | <b>Organism/responsible</b>                 |
|---|------------------|--|---|
| Formalization of the Mercury Committee: different sectors involved.   | October-December | DSA (national), transportation, coffee, facilities | Consultant (Mario Yarto)/ CENICA (Martha)   |
| Gather existing information on: regulatory framework and other issues (demographic, social issues at each potential site) | October-December | Own and UNEP resources                             | Consultant/CENICA and involved institutions |
| Inventory validation  | October-December | [UNEP resources]                                   | [Consultant]                                |
| Technology assessment (basic management options assessment)   | October-December | UNEP resources                                     | Consultant                                  |
| Gather information on potential sites for storage and its evaluation  | October -March   | UNEP resources                                     | Consultant                                  |
| Interim report  | March            | Own and UNEP resources                             | Consultant /CENICA                          |
| National action plan  | May-June         | Own and UNEP resources                             | Consultant /CENICA                          |
| Final report  | May-June         | Own and UNEP resources                             | Consultant /CENICA                          |

|                                      |             |             |        |
|--------------------------------------|-------------|-------------|--------|
| Organization of the results workshop | June-August | US 9,000.00 | CENICA |
|--------------------------------------|-------------|-------------|--------|

Parties involved in the Mercury Committee:

**Government**

Semarnat

Health Sector

Sagarpa

Secretariat of Economy (SGM and general mining coordination, foreign commerce, Dir. Gen. Of heavy industries and high technology -for cement-, Dir. Gen. Basic industries –chemicals-.

Customs

Secretariat of energy (CFE, PEMEX)

Foreign affairs

INEGI

**Private sector:**

CANAME National chamber of electrical manufacturers

CANIFARMA

CANACINTRA

ANIQ

CYDSA

CAMIMEX

CANACEM

AMEXPILAS

**Annex IV: WORK PLAN FOR THE DEVELOPMENT OF THE MERCURY STORAGE AND DISPOSAL PROJECT – PANAMA**

| <b>Activities</b>                          | <b>Tasks</b>   | <b>Actors</b>  | <b>Timeframe</b>  | <b>Resources</b>  | <b>Responsible</b>                             |
|--|--|--|---|---|--|
| 1- Updating the existing mercury inventory | 1- Define actors who will collaborate on the updating of the inventory of mercury. | MINSA, ANAM, AAUD, ANA, UTP, MIDA, Ministry of energy, ACP, AMUPA, Dentists Association Panama, CSS, National Assembly, ASEP, Mining Chamber of Panama, Zero pollution Alliance, MICI (National Directorate of Commerce, mineral resources Division) | Inventory updated to December 15, 2012<br><br>(Actor's training date: October 23, 2012) | Stationery, ink for printing, coffee and lunches for meeting and training | Dra. María Inés Esquivel, Ing. Augusto Mendoza |
|  | 2- Train and sensitize the actors who will cooperate in updating the inventory     |  | for information validation meeting:   |   |  |
|  | 3- Define actors' responsibilities   |  | November 20, 2012)  |   |  |
|  | 4- Processing the information obtained by the actors                               |  |   |   |  |
|  | 5- Processed information validation meeting  |  |   |   |  |
|  | 6- Send results to the international consultant                                    |  |   |   |  |
| <b>Activities</b>                          | <b>Tasks</b>   | <b>Actors</b>  | <b>Timeframe</b>  | <b>Resources</b>  | <b>Responsible</b>                             |
| 2- Updating the                            | 1- Define actors who will  | MINSA, ANAM, Asamblea  | Legal framework   | Stationery,   | Dra. María                                     |

|  |   |   |   |  |                                     |
|--|---|---|---|--|-------------------------------------|
| Legal framework  | collaborate on the updating of the Legal framework  | Nacional  | updated to December 15, 2012<br><br>(Estimated date for the information validation meeting: November 21 2012) | paper, ink for printing, coffee and lunches for meeting              | Inés Esquivel, Ing. Augusto Mendoza |
|  | 2- Review final reports of the existing national mercury emissions inventory, the Stockholm Convention National Implementation Plan and the national chemicals profile (Legal part) |   |   |  |                                     |
|  | 3- Collect information on new rules on mercury and hazardous wastes   |   |   |  |                                     |
|  | 4- Consolidate the information in the related matrix  |   |   |  |                                     |
|  | 5- Obtained information validation meeting  |   |   |  |                                     |
|  | 6- Send results to the international consultant   |   |   |  |                                     |
| <b>Activities</b>  | <b>Tasks</b>  | <b>Actors</b>   | <b>Timeframe</b>  | <b>Resources</b>   | <b>Responsible</b>                  |
| 3- Study and analysis of possible locations for the temporary storage in the | 1- Define actors who will cooperate in obtaining information and evaluation of possible locations for the temporary storage in the country  | MINSA, ANAM, UTP, National Institute Tommy Guardia, National Police, National Security Council, AAUD, Pollution zero alliance | Possible specific places for temporary storage defined on December 15, 2012                                   | Stationery, paper, ink for printing, coffee and lunches for meetings |                                     |

|  |  |  |  |  |                                |
|--|--|--|--|--|--------------------------------|
| country                                | 2- Train and sensitize actors who will cooperate in obtaining information and evaluation of possible locations for the temporary storage in the country        |  | (Actors' training date: October 25, 2012)                                  | and training.<br>Expenses related to the visit of sites with a higher score (per diem) |                                |
|  | 3- Collect information on potential sites, with existing infrastructure, with features for the temporary storage of mercury waste, based on the related matrix |  | (Estimated date for the information validation meeting: November 23, 2012) |  |                                |
|  | 4- Consolidate the information in the related matrix   |  | (Probable visit date: December 3, 2012)                                    |  |                                |
|  | 5- Obtained information validation meeting   |  |  |  |                                |
|  | 6- Visit to sites with highest score   |  |  |  |                                |
|  | 7- Send results to the international consultant  |  |  |  |                                |
| <b>Activities</b>                      | <b>Tasks</b>   | <b>Actors</b>                                  | <b>Timeframe</b>   | <b>Resources</b>   | <b>Responsible</b>             |
| 4- Basic management options assessment | 1- Define actors who will collaborate in the basic management options assessment   | MINSA, ANAM, UTP, ACP, Pollution zero alliance | Basic management options set for December 15,                              | Stationery, paper, ink for printing, coffee and  | Dra. María Inés Esquivel, Ing. |

|  | 2- Assess the basic management options proposed in the Final report of the national mercury emissions inventory |  | 2012<br><br>(Estimated date for the information validation meeting: December 4, 2012)   | lunches for meetings  | Augusto Mendoza                                |
|--|---|--|---|---|--|
|  | 3- Assess the current situation of the country  |  |   |   |  |
|  | 4- Propose basic management options if necessary, according to assessments carried out                          |  |   |   |  |
|  | 5- Consolidate the information provided by the actors in terms of basic management options                      |  |   |   |  |
|  | 6- Proposed information validation meeting  |  |   |   |  |
| <b>Activities</b>                      | <b>Tasks</b>  | <b>Actors</b>  | <b>Timeframe</b>  | <b>Resources</b>  | <b>Responsible</b>                             |
| 5- Establish decision-making processes | 1- Define actors who will collaborate in establishing decision-making processes                                 | MINSA, ANAM, AAUD, ANA, UTP, MIDA, Ministry of energy, ACP, AMUPA, Dentists Association Panama, CSS, National Assembly, ASEP, Mining Chamber of Panama, Alliance pollution zero, MICI (National Directorate of Commerce, mineral resources | Decision-making Processes set for January 15, 2013<br><br>(Estimated date of the meeting to present results of activities 1 to 4, all stakeholders, on December 11, | Stationery, paper, ink for printing, coffee and lunches for activities' results presentation meeting and work | Dra. María Inés Esquivel, Ing. Augusto Mendoza |



|   |   | Directorate), ACP, Alliance pollution zero, National Institute Tommy Guardia, national police, National Security Council  | 2012)<br><br>(Date of the working meeting to prepare decision-making processes: January 5, 2013)   | meeting  |  |
|---|---|---|--|--|--|
|   | 2- Meeting to present activities 1 to 4 results   |   |  |  |  |
|   | 3- Work meeting to establish decision-making processes  |   |  |  |  |
|   | 4- Consolidate document with agreed decision-making processes   |   |  |  |  |
| <b>Activities</b>   | <b>Tasks</b>  | <b>Actors</b>   | <b>Timeframe</b>   | <b>Resources</b>   | <b>Responsible</b>                             |
| 6- Develop the National Action Plan on mercury storage and disposal | 1- Prepare a draft of the National action Plan on mercury storage and disposal, based on information obtained in activities 1 through 5 | MINSA, ANAM, AAUD, ANA, UTP, MIDA, Ministry of energy, ACP, AMUPA, Dentists Association Panama, CSS, National Assembly, ASEP, Mining Chamber of Panama, Alliance pollution zero, MICI (National Directorate of Commerce, mineral resources Directorate), ACP, National Institute Tommy Guardia, National Police, National | National action plan on mercury storage and disposal prepared for February 15, 2013<br><br>(Probable date for the working meeting to prepare the National Action | Stationery, paper, ink for printing, coffee and lunches for the 2-day working meeting in a local hotel | Dra. María Inés Esquivel, Ing. Augusto Mendoza |

|   |   | Security Council   | Plan on mercury storage and disposal:<br>February 5 and 6, 2013)   |   |  |
|---|---|--|--|---|--|
|   | 2- Send all actors the draft of the National action Plan on mercury storage and disposal                              |  |  |   |  |
|   | 3- Organize work meeting to discuss, strengthen and validate the National Action Plan on mercury storage and disposal |  |  |   |  |
| Activities  | Tasks   | Actors   | Timeframe  | Resources   | Responsible                                    |
| 7- Produce the interim report of the mercury storage and disposal project | 1- Prepare a draft interim report   | MINSA, ANAM, AAUD, ANA, UTP, MIDA, Ministry of energy, ACP, AMUPA, Dentists Association Panama, CSS, National Assembly, ASEP, Mining Chamber of Panama, Alliance pollution zero, MICI (National Directorate of Commerce, mineral resources Directorate), ACP, National Institute Tommy Guardia, National Police, National Security Council | Interim Report of the mercury storage and disposal project prepared for March 30, 2013<br>(Probable date of the meeting: March 19, 2013) | Stationery, paper, ink for printing, coffee and lunches for the meeting | Dra. María Inés Esquivel, Ing. Augusto Mendoza |
|   | 2- Send draft interim report to stakeholders  |  |  |   |  |
|   | 3- Hold meeting to agree on interim report  |  |  |   |  |
|   | 4- Submit interim report to stakeholders  | UNEP and international consultant  |  |   |  |

|  |   |                                   |  |  |  |
|--|---|-----------------------------------|--|--|--|
| 8- Developing the Final report on the mercury storage and disposal project | 1- Develop draft of project's Final report                  |                                   | Final report on mercury storage and disposal project prepared for June 15, 2013<br><br>(Probable date for the meeting: June 4, 2013) |  |  |
|  | 2- Send draft of final report to stakeholders               |                                   |  |  |  |
|  | 3- Hold meeting to agree on the final report                |                                   |  |  |  |
|  | 4- Send the final report to stakeholders                    | UNEP and international consultant |  |  |  |
|  | 5- Submit the project's final report at the results meeting |                                   |  |  |  |

Annex V: PICTURES

