

Overall Progress of the United Nations Global Mercury Partnership

January 2009 – June 2010

Introduction

1. The Operational Guidelines of the Overarching Framework of the UNEP Global Mercury Partnership specify that one of the responsibilities of the Partnership Advisory Group is to report on overall progress to the Executive Director. Related to this, UNEP is to facilitate reporting on progress to governments, including the UNEP Governing Council or its subsidiary bodies, as appropriate, and the partnership areas are to report biennially to UNEP in accordance with the UNEP reporting format.
2. Reporting is to include tracking of partnership activities and partner contributions as well as assessing effectiveness, and measuring the impact of partnership activities on the achievement of the overall goal. The reports are to enhance efficiency, effectiveness and sustainability of the UNEP Global Mercury Partnership.
3. This document is a report on overall progress of the UNEP Global Mercury Partnership. It has been developed by the UNEP Global Mercury Partnership Advisory Group and reflects input received from within the partnership area. It considers the future direction of the Partnership in the context of the mercury Intergovernmental Negotiating Committee process.
4. A separate report on activities undertaken from January 2009 to June 2010 under the UNEP Global Mercury Partnership is available at:
<http://www.unep.org/hazardoussubstances/Mercury/GlobalMercuryPartnership/tabid/1253/Default.aspx>.

Section I: Assessment of overall progress (January 2009 – June 2010)

5. In paragraph 20 of UNEP Governing Council Decision 25/5, the Executive Director of UNEP and members of the UNEP Global Mercury Partnership were commended for the progress in developing and implementing the Partnership as a vehicle for immediate action on mercury and the progress made by the Partnership in creating an overarching framework for immediate action in the priority areas identified in decision 24/3 IV was welcomed. The continued involvement of UNEP in the Partnership was also endorsed.
6. Overall interest in the UNEP Global Mercury Partnership is strong. Partners agree that the partnership areas are a good venue to share and exchange relevant information.

Partner Membership

7. The number of official partners has almost tripled over this time frame:
 - On 1 January 2009, there were 23 official partners in the Global Mercury Partnership, including 6 governments, 2 intergovernmental organizations, 7 non-government organizations, and 8 others.
 - As of 30 June 2010, there were 70 official partners in the Global Mercury Partnership. The Global Mercury Partnership is currently comprised of 15 governments, 4 intergovernmental organizations, 31 non-government organizations, and 20 others.
 - Some of the partners are global industry partners that collaborate and represent a large number of national associations.
8. In addition, there are a number of participating organizations that have yet to submit official support letters to the UNEP Global Mercury Partnership. The Partnership Advisory Group would continue to encourage such participating organizations to signal formal support to the UNEP Global Mercury Partnership through a formal letter of support as specified in the Overarching Framework.
9. The Partnership Advisory Group would recommend that UNEP and the partnership areas continue to encourage new partners to join the partnership.

Endeavouring to secure adequate funds

10. The Executive Director sent a fund-raising letter dated 26 March 2009 to UNEP official focal points drawing attention to decision 25/5 and the need for funding to support the implementation of

the decision, including work on partnerships. The United States of America subsequently pledged \$ 675,000 to support the work of partnership activities, and the Government of Switzerland pledged \$ 49,936 to support the work of partnership activities.

11. In addition, a number of strategic activities have been supported:
 - i) The Government of Norway supported \$1,500,000 of activity in three strategic areas from January 2009 through to June 2010, including: the primary mercury mining project in Kyrgyzstan, the mercury storage projects in Asia and South America, and the UNEP mercury waste project. In addition, the Government of Norway recently funded \$277,736 of activities related to waste, artisanal and small scale gold mining and vinyl chloride monomer production through overseas development aid.
 - ii) The European Commission support to the coal project extends over a three year time frame from 2009 – 2011. These funds are supporting a \$1,303,000 project aimed at reducing mercury emissions from coal combustion in the energy sector.
 - iii) The United States of America is supporting \$ 520,000 of activities related to mercury in products, information gathering and inventories, artisanal and small scale gold mining as well as the Kyrgyz Republic primary mercury mining project.
 - iv) The Government of Spain provided \$ 100,000 in 2008 for artisanal and small scale gold mining activities in South America, specifically in Colombia and Ecuador. The funds are being used during this reporting cycle.
12. Other partners in the UNEP Global Mercury Partnership have directly supported a number of projects. Other donors have expressed interest.
13. UNEP hired one P-3 level staff to support the UNEP Global Mercury Partnership with funding from the core Environment Fund. The staff member has been engaged under this post since May 2009. In addition, UNEP has provided on-going support for one P-4 level staff to support mercury interim activities since February 2007.
14. In July 2009, UNEP provided \$115,000 in funds to support activities from the core Environment Fund. These additional activities included: translating into French and Spanish as well as printing copies of the mercury awareness raising package 'Mercury – A Priority for Action'; development of the synopsis document 'Mercury Knowledge & Gaps in the African Region'; support to expand the 'Mercury Watch Database'; and development of 'Squeezing Gold from a Stone', an advocacy document on artisanal and small scale gold mining.
15. UNEP has also taken other steps to secure funding, such as through the establishment of the Mercury Small Grants Programme and through raising limited funds through the Strategic Approach's Quick Start Programme (in particular for activities relating to artisanal and small-scale gold mining).
16. Although the partnership donor base has expanded, overall funding levels have decreased in this reporting cycle. Significant levels of chemicals related funding have been directed towards supporting the process of developing the global legally binding instrument on mercury.
17. A common weakness identified in the partnership area evaluations includes the lack of funding for partnership area activities. Additional funding is required to implement activities under the UNEP Global Mercury Partnership in line with priority actions established in the partnership area business plans.

Status and scope of the partnership areas

18. Business plans have been drafted for the following partnership areas: artisanal and small-scale gold mining; mercury cell chlor-alkali production; mercury air transport and fate research; mercury in products; mercury releases from coal combustion; and mercury waste management. The business plans provide clarity and accountability for partnership area efforts and timelines. The current business plans are available on the UNEP Mercury Programme web-site at <http://www.unep.org/hazardoussubstances/Mercury/GlobalMercuryPartnership/tabid/1253/Default.aspx>.
19. The United Nations Industrial Development Organization (UNIDO) and the Natural Resources Defence Council (NRDC) are acting as co-leads in the artisanal and small-scale gold mining partnership area. NRDC took up co-leadership of this partnership area in April 2009. The objective of this partnership area is the continued reduction and elimination of mercury uses and releases in artisanal and small-scale gold mining. The partnership area has set a target of a 50 per cent reduction in mercury demand in artisanal and small-scale gold mining by the year 2017.
20. The United States of America is acting as lead of the mercury cell chlor-alkali production partnership area. The objective of this partnership area is to minimize significantly and, where feasible, eliminate global mercury releases to air, water and land that may occur from chlor-alkali production facilities. The partnership area has set a target of 29 per cent reduction in mercury demand by the year 2015.
21. Italy is acting as lead of the mercury air transport and fate research partnership area. The objective of this partnership area is to increase global understanding of international mercury emissions sources, fate and transport by accelerating the development of sound scientific information to address uncertainties and data gaps in global mercury cycling and its patterns (e.g., air concentrations and deposition rates, source-receptor relationships, hemispheric and global air transport and transformation and emission sources), by enhancing information sharing among scientists and between them and policymakers and by providing technical assistance and training, where possible, to support the development of critical information.
22. The United States of America is acting as lead of the mercury-containing products partnership area. The partnership area objective is to phase out and eventually eliminate mercury in products and to eliminate releases during manufacturing and other industrial processes via environmentally sound production, transportation, storage, and disposal processes. Numeric reduction targets have been established for the various product categories.
23. The International Energy Agency (IEA) Clean Coal Centre is acting as lead of the mercury releases from coal combustion partnership area. The objective of this partnership area is the continued minimization and elimination of mercury releases from coal combustion where possible. At this stage, no numerical targets are established for this partnership area.
24. The Government of Japan is acting as lead in the mercury waste management partnership area, which was initiated in early 2008 by the Government of Japan. The objective of the partnership area is to minimize and, where feasible, eliminate unintentional mercury releases to air, water, and land from waste containing mercury and mercury compounds by following a life cycle management approach.
25. The Zero Mercury Working Group is acting as interim lead for the mercury supply and storage partnership area, which was established in April 2009. A government lead or co-lead continues to be sought for this partnership area. Governments in a position to lead or co-lead this partnership area are encouraged to identify themselves to UNEP. Specifically, the supply and storage partnership area will aim to reduce the global supply of mercury by 50% by 2013, when compared to the supply available in 2005 as documented in the most recent UNEP trade report.

Assessing effectiveness of the partnership areas

26. The partnership areas have identified objectives that are meant to reflect desired outcomes of the partnership area. The objectives are outlined above in the section that outlines the status and scope of partnership areas.
27. The partnership areas business plans should also outline indicators of progress which are intended to assist in tracking progress in partnership area reporting to UNEP (as per Annex II Business Plan Template, Section VI. Evaluation of the Overarching Framework for the Global Mercury Partnership).

28. For the artisanal and small-scale gold mining partnership area there are three indicators of progress identified:
- i) Mercury purchased and used in the communities and target countries where technical activities are carried out (baseline is the 2005 data from the 2006 UNEP Trade Report);
 - ii) Mercury release reductions from ASGM; and
 - iii) Where available and where feasible, number of kilogram of gold produced by ASM for one kilogram of mercury used in the sector.
29. There is currently limited data for the first two measures. However, some mercury release reductions have been and can be documented on a project basis, such as the EPA Mercury Capture System work in gold shops.
30. The third indicator is also very difficult to assess. It can be documented on a project basis, where a particular technology reduces the use of mercury at a given site per unit of gold produced.
31. It is recommended that in addition to these indicators which are more appropriate at a project level, additional indicators may be created.
32. For the mercury cell chlor-alkali production partnership area, indicators include:
- i) Percent reduction in mercury use per metric ton of chlorine production, percent reduction in Hg emissions per metric ton of Chlorine production,
 - ii) Percent reduction in mercury use by the chlor-alkali industry, percent reduction in Hg emissions and use by the chlor-alkali industry, and
 - iii) Number of chlor-alkali units with mercury-cell technology decommissioned.
33. Under this partnership area, the World Chlorine Council (WCC), which represents about 85% of global mercury-based chlorine production, has provided a regionally-based report on mercury consumption and emissions showing declines in mercury emissions from about 23.3 metric tons per year in 2002 to 6.4 metric tons per year in 2009 (7.4 metric tons for 2008, 8.6 metric tons for 2007). The regions covered are USA/Canada, Europe, Russia, India, Uruguay and Brazil/Argentina. The number of MCCA plants in these regions has dropped to 58 in 2009 (85 in 2002, 70 in 2007, 60 in 2008). This is helpful baseline information in addressing this sector.
34. For the mercury air transport and fate research partnership area, indicators of progress are under development. The following indicators are under consideration:
- i) Mercury emissions to the atmosphere from anthropogenic sources by region and emission-source category;
 - ii) Mercury emissions to the atmosphere from natural sources by region and emission-source category;
 - iii) Regional and global emissions for each mercury-species;
 - iv) Maps of atmosphere mercury depositions by region, mercury-species and emission scenario;
 - v) Update on mercury emissions, transport and depositions on different spatial and temporal scales.
35. The Partnership Advisory Group notes that the mercury air transport and fate research partnership area could play a role in tracking progress of the Global Mercury Partnership, and as such, these indicators are helpful for the Partnership as a whole. The Partnership Advisory Group would encourage the air transport and fate research group to set specific indicators for the partnership area to help identify and fill gaps in source emission information and promote capacity-building.
36. For the mercury-containing products partnership area, there are currently no quantifiable indicators of progress identified; however, percentage mercury reduction objectives are set forth in the business plan per product sector as outlined in Table 1.

Table 1: Possible mercury demand baseline data

Mercury containing products	Demand 2005 (tonnes)	Demand Projection 2015 (tonnes)	Partnership target (tonnes)
Batteries	300-600	200	50 (Hg demand by 2015)
Lamps	100-150	125	100 (Hg demand by 2015)
dental amalgam	240-300	270	230 (Hg demand by 2015)
measuring and control devices	150-350	125	50 (Hg demand by 2015)
electrical and electronic devices	150-350	110	50 (Hg demand by 2015)
others such as cosmetics, pharmaceuticals and traditional and ritual uses	30-60	40	30 (Hg demand by 2015)

37. Additional possible indicators include: mercury demand for manufacturing of products containing mercury; quantity of mercury used in products consumed by consumers; release reductions achieved; availability of non-mercury alternatives; and number of dental practitioners using amalgam.

38. Current sector reduction goals are based upon figures generated in the 2007 UNEP Trade Report. Such figures are a good general starting point; however, progress toward product sector reduction goals is difficult to measure because of a lack of national baselines. The growing body of information being collected by all partnership area projects is helping to create such a baseline.

39. For the mercury releases from coal combustion partnership area, two specific indicators are currently identified in the business plan, including:

- i) Availability of guidance tools to assist countries in achieving emission reductions;
- ii) Emission reductions achieved.

40. For the first indicator, the process optimization guidance has been developed and has been tested in 3 countries. Plans are underway to test it in other countries and to develop the current guidance into an interactive on-line tool.

41. For the second indicator, estimates for mercury emissions from coal combustion are known to be somewhat inaccurate and difficult to quantify, and it was deemed inappropriate to use actual emission estimates and reductions therein as a target at this stage. Rather, the initial results from the regional projects could be used to provide more accurate emissions for smaller target areas in the future.

42. For the mercury waste management partnership area, there are a number of identified indicators, including:

- i) Estimated amount of mercury diverted from waste stream by the implementation of the projects under the Partnership;
- ii) Available information on identification and characterization of mercury contained in waste streams;
- iii) Number of national projects on ESM of mercury waste implemented;
- iv) Number of countries that prepared national inventory of mercury waste;
- v) Number of projects to promote awareness and education.

43. In terms of estimated amount of mercury diverted from waste stream by the implementation of the projects under the Partnership from waste projects, 635,000 mercury switches from vehicles were diverted through activities in the USA, 3 tonnes of batteries collected Grupo Prques Nacionales

Panama (GPNP), 5 kg diverted through the Costa Rica Hospital Assessment Project, 54 kg diverted through the Chile Hospital Assessment Project and 22 kg diverted through the China Hospitals Project (indicator i).

44. In terms of available information on identification and characterization of mercury contained in waste streams, UNIDO identified that mercury-containing tailings easily become methylated and bio-accumulable and thus stresses that action at production level is essential in this area (indicator ii).

45. The number of national projects on ESM of mercury waste implemented is 11. This includes the Basel Convention Capacity Building Programme in the Latin America and Caribbean Region (Uruguay, Costa Rica, Argentina), UNEP Mercury Waste Management Project (Cambodia, Philippines, Burkina Faso, Chile, Pakistan), UNIDO Project on end-of-life Compact Fluorescent Lamps (Uruguay), Japan's research on long-term storage of collected mercury, Panama's battery collection project (indicator iii).

46. The number of countries that prepared national inventory of mercury waste is 8, including Cambodia, Pakistan, the Philippines and Syria through Asia Mercury Inventory Toolkit Pilot Project; Germany; Japan; USA; Panama; various countries through USEPA funded projects (indicator iv).

47. Projects to promote awareness and education include: UNEP's development of brochures, guidelines, assessments, and other information materials (accessible at <http://www.unep.org/hazardoussubstances/Mercury/MercuryPublications/ReportsPublications/tabid/3593/Default.aspx>); GPNP's awareness and educational campaign through newspapers, magazines and Art & Info mercury workshops in Panama; USA's activities (publishes information on safe management and disposal of mercury-containing products and how to package, transport, and dispose mercury; encourages schools to prevent mercury spills through efforts such as provision of "Mercury: An Educator's Toolkit"; makes public information on how to address dental amalgam waste through websites); and others as listed in the business plan (indicator v).

48. For the mercury supply and storage partnership area, indicators of progress have not been established. The following priority actions are identified:

- i) Working with partners to reduce or eliminate the export of mercury from large scale primary mining;
- ii) Assessing options and technologies for storing any excess mercury supply;
- iii) Supporting programs that provide for the long term storage or sequestration of mercury stocks from by-product and chlor-alkali sources; and/or
- iv) Facilitating the implementation of export ban legislation in additional countries or regions.

49. In order to effectively track partnership area progress in future overall progress reports, the Partnership Advisory Group recommends that many of the partnership areas include more targets and specific indicators of progress in the next draft of their business plans. Such indicators might include, for example, tracking progress on specific priority actions, activities in specific countries/regions or information at the facility level or other smaller scale.

Section II: Encouraging the work of the partnership areas in moving forward

50. As specified in the UNEP Global Mercury Partnership Overarching Framework, the partnership areas should support the overall goal of the Partnership through contributing to the following objectives, consistent with the priorities set out in paragraph 19 of Governing Council Decision 24/3:

- Minimization and, where possible, elimination of mercury supply considering a hierarchy of sources, and the retirement of mercury from the market to environmentally sound management;
- Minimization and, where feasible, elimination of unintentional mercury releases to air, water, and land from anthropogenic sources;
- Continued minimization and elimination of global use and demand for mercury;
- Promoting the development of non-mercury technologies where suitable economically feasible alternatives do not exist.

51. In addition, the work of the UNEP Global Mercury Partnership must be consistent with UNEP Governing Council Decision 25/5.

52. In this section, the Partnership Advisory Group makes recommendations based on the efforts identified in the current partnership area business plans to encourage the future work of the UNEP Global Mercury Partnership.

53. Overall, the Partnership Advisory Group notes the efforts of the partnership areas to respond to the recommendations that were made at the first Advisory Group meeting. The Partnership Advisory Group recommends continued efforts to maximize efficiency and promote cooperation and coordination within the overall Partnership and suggests partnership areas continue to link together with activities of other partnership areas, including by hosting joint meetings and improving communication.

(a) Meeting the overall objective of the Partnership

54. As noted in paragraph 29, the Overarching Framework establishes an overall goal for the UNEP Global Mercury Partnership. In meeting this overall goal, the partnership areas are to establish objectives for the individual partnership areas. The objectives of the partnership areas are to be clear, measurable, target-oriented and realistic while at the same time clearly linked to the ambitious goal of the UNEP Global Mercury Partnership.

55. Below, the Partnership Advisory Group reviews the objectives, targets and timelines established in each of the partnership area business plans with the aim of encouraging the work of the partnership areas consistent with the overall goal and operational guidelines of the Partnership.

56. For the artisanal and small-scale gold mining partnership area:

- i) The milestone of fifty percent reduction by 2017 is based on an older estimated baseline, and since then, the work of the partners has contributed to the increase of available information and the initial figure of 1,000 tonnes released per year now appears overly underestimated. Therefore, the partnership area should revisit the target and its definition so that it can account for the improvement of data collection as the partners are expanding their activities and knowledge.
- ii) Additional indicators might be developed to better reflect the successes of the partners and awareness raising should be accounted for. The current indicators are not providing information on the global results; instead, they focus on specific project information.
- iii) The partnership area has managed to increase its partner membership base; however, based on the fact that ASGM is active in over 60 countries and the baseline data is weak, there is a need to continue promoting new partners to join, including those that are working in other areas of development. The partnership area believes that there is a need to define and recruit additional stakeholders to participate. Other development partners are active in the ASGM area although they generally tackle other issues (health, child labour) and do not necessarily view their projects as mercury-related. Also, the private sector is still largely absent in the partnership area.
- iv) In terms of barriers to participation, the partnership notes that it is hard for developing country partners to participate due to resources. The partnership area needs to continue to find ways to piggyback on other meetings and have more face to face meeting. Language is also often a barrier to participation. Overall, the partnership area needs to be more creative in reaching out to partners and overcome the barriers to participation.

57. For the mercury cell chlor-alkali production partnership area:

- i) The objectives, targets and timelines for the chlor-alkali partnership area are primarily viewed as on track.
- ii) Gathering more information on regulatory policies for mercury cell facilities and providing more technical information on conversions to non-mercury technology will be in the plans for future.
- iii) The Partnership Advisory Group requested for a study/information document of occupational health effects of exposure and to elemental mercury in chlor-alkali plants and ASGM practitioners (during the lifecycle of mercury use). The partnership

area can respond to this request, noting this type of task could apply to all sectors and it can be an overall partnership information gathering activity.

- iv) Lastly the partnership area will work with partners to help identify funding opportunities for the countries that wish to undertake conversions.
58. For the mercury air transport and fate research partnership area:
- i) The partnership area plans to revise the business plan to include oceans and contaminated sites in the future research objectives.
 - ii) The partnership area is working to establish a coordinated global monitoring network closely linked to existing sites with global representative distribution and a long-term perspective. This network should ensure that this measurement network is strongly supported by regional and global modelling. The partnership area will promote communication with key stakeholders to improve global coverage.
59. For the mercury-containing products partnership area:
- i) The Partnership Advisory Group recommends the business plan be reviewed in light of new interest in emerging product sectors and potential cross-cutting issues and that new projects be shaped to be responsive to information needs identified by the intergovernmental negotiating committee.
 - ii) The Partnership Advisory Group notes that the products partnership area has responded to the requests made at the first meeting of the Advisory Group to expand the location and diversity of projects and adding pilot projects, including new projects in Nepal, Tanzania, and Mongolia, and would encourage the partnership area to seek opportunities to include more products in the scope of the partnership area activities, such as batteries, dental amalgam, lamps and cosmetics.
 - iii) The Partnership Advisory Group understands that the partnership area, as stated in the business plan, does not currently have quantifiable measures of progress identified, rather, percentage reduction goals are set forth per product sector. The Advisory Group notes that additional proposed indicators include: mercury demand for manufacturing of products containing mercury; quantity of mercury used in products consumed by consumers; release reductions achieved; availability of non-mercury alternatives; and number of dental practitioners using amalgam.
 - iv) The Partnership Advisory Group suggests the partnership area work with UNEP to document success stories such as initiatives in the health care sector with the aim to help replicate successful initiatives.
 - v) The products partnership area is mindful of the trade-offs that may occur in striving to meet goals without considering external, socioeconomic impacts (e.g., public health implications of eliminating the use of dental amalgam).
60. For the mercury releases from coal combustion partnership area:
- i) The objectives, targets and timelines for the coal partnership area are primarily viewed as on track. The partnership has made progress on the Process Optimization Guide (POG) and has gathered useful feedback on it. The POG is building a useful tool for partners and stakeholders and bringing the common issues forward in this sector.

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