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## Associated Mercury Action Plan for the Philippines

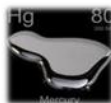
Environmental Management Bureau  
Department of Environment and Natural Resources  
Philippines




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### Background:

- Formation of multi-disciplinary inter-agency Technical Working Group from various government agencies, private sectors, NGOs and academe.
- Consultation workshops in Metro Manila, Davao City, and Legazpi City, Bicol and administration of questionnaires
- Data used in the inventory were obtained from various sources and from estimation through direct or indirect calculation with reasonable assumptions.
- The assumptions and data obtained were based on the calculations for using the maximum and minimum input factors as suggested by UNEP toolkit.



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### Situation and Gap Analysis

- The mercury inventory assessment for the Philippines presents an indication of the pattern of emissions and sources of large generators of mercury which could be targeted for control measures.
- Its major drawback however is the wide range of input factors. The toolkit results in about 75 percent increase in maximum values from minimum values.
- This is considered significant and warrants a second look at the toolkit and the country inventory assessment for the Philippines.

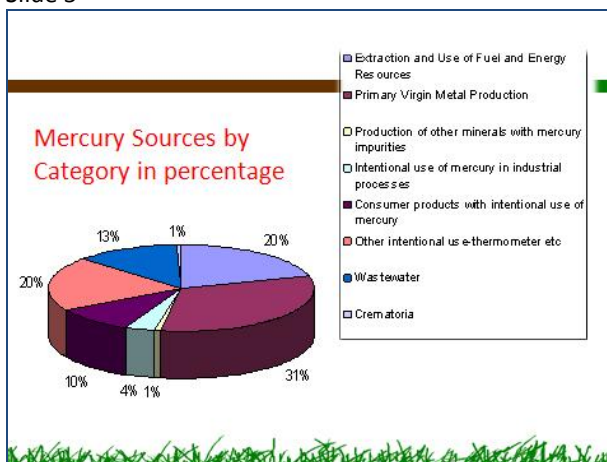


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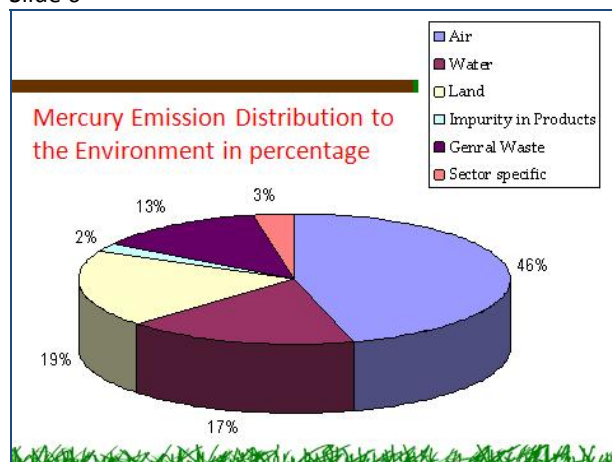
### Total Mercury Output or Emissions per Category, kg Hg/year

| Category                                             | Emissions kg Hg/year | %          |
|------------------------------------------------------|----------------------|------------|
| Primary Virgin Metal Production                      | 74,769               | 31.95      |
| Extraction and Use of Fuel and Energy Resources      | 47,862               | 20.45      |
| Other intentional use-thermometer, etc.              | 46,653               | 19.93      |
| Wastewater                                           | 29,685               | 12.68      |
| Consumer products with intentional use of mercury    | 22,717               | 9.71       |
| Intentional use of mercury in industrial processes   | 8,400                | 3.59       |
| Production of other minerals with mercury impurities | 2,415                | 1.03       |
| Crematoria                                           | 1,530                | 0.65       |
| <b>Total</b>                                         | <b>234,031</b>       | <b>100</b> |

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### Goal and Objectives for Developing the Draft Hg Action Plan for the Philippines

- Reduction of risk to human health and contamination of the environment from anthropogenic use and release of mercury and mercury compounds.
- Enhance coordination and cooperation among concerned sectors (e.g. industries, importers, educators, NGOs).
- Intensify source reduction and recycling.
- Improve source emission controls.

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### Action Items

1. Establish a national mercury task force;
2. Institute mercury emissions reductions;
3. Undertake source reduction and safe waste management;
4. Perform outreach and education campaigns;
5. Undertake research, analysis and strategic monitoring;
6. Register and dispose mercury stockpiles;
7. Link with international agencies for coordination and cooperation in mercury reduction.

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#### Action Item 1: Establish a national mercury task force

| No. | Action Plan                                                                                                                               | Implementing Agencies | Timeframe |
|-----|-------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------|
| 1a  | Constitute the national task force on mercury with representatives from various sectors.                                                  | DENR, Task Force      | 2008 Q4   |
| 1b  | Appoint the Technical Working Group members as advisers to the Task Force. Alternatively, they can be absorbed as part of the Task Force. | DENR                  | 2008 Q4   |
| 1c  | Conduct a national workshop to develop a Terms of Reference for the Task Force and to review the draft Associated Mercury Action Plan.    | DENR, Task Force      | 2009 Q2   |
| 1d  | Submit for approval and funding the membership of the Task Force and its TOR.                                                             | DENR                  | 2009 Q2   |
| 1e  | Prepare a detailed Mercury Action Plan.                                                                                                   | DENR, Task Force      | 2009 Q3   |

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#### Action Item 2: Institute mercury emissions reductions

| No. | Action Plan                                                                                                    | Implementing Agencies | Timeframe |
|-----|----------------------------------------------------------------------------------------------------------------|-----------------------|-----------|
| 2a  | Develop a strategy mix of source reduction, waste segregation and emission controls and disseminate it widely. | DENR, Task Force      | 2010      |
| 2b  | Encourage more emission monitoring and stack testing of mercury releases.                                      | DENR, Task Force      | 2009-2015 |
| 2c  | Encourage emission reduction in individual facilities as soon as possible.                                     | DENR, Task Force      | 2009-2015 |
| 2d  | Conduct regular consultation to assess the achievement of mercury reduction in various regions of the country. | DENR, Task Force      | 2009-2012 |

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#### Action Item 3: Undertake source reduction and safe waste management

| No. | Action Plan                                                                                                                                           | Implementing Agencies                           | Timeframe  |
|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|------------|
| 3a  | Impose a total ban on the use of mercury-based sphygmomanometers and thermometers.                                                                    | DOH                                             | 2008 Q4    |
| 3b  | Impose a ban on the use of mercury in high schools science laboratories.                                                                              | DENR, DepEd                                     | 2009       |
| 3c  | Provide technical assistance in pollution prevention measures for dental clinics, hospitals, schools, and laboratories.                               | DENR, DOH                                       | 2009-2013  |
| 3d  | Evaluate the effectiveness of mercury collection and recycling efforts.                                                                               | DENR                                            | 2012-2015  |
| 3e  | Develop innovative partnerships with energy facilities, mining sectors, industries and institutions to elicit voluntary action for mercury reduction. | DENR (MGB, EMB), DOE, DepEd, DOH, DTI, SEC, BOC | Continuous |

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#### Action Item 4: Perform outreach and education campaigns

| No. | Action Plan                                                                                                                                                                        | Implementing Agencies | Timeframe |
|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------|
| 4a  | Develop posters and brochures on products containing mercury and their alternatives                                                                                                | DENR, Task Force      | 2009-2010 |
| 4b  | Develop educational programs for commercial and institutional sectors that generate substantial mercury waste and promote the use of substitutes to mercury products and processes | DENR, Task Force      | 2009-2010 |
| 4c  | Develop information and educational campaigns on proper recycling and waste management of items containing mercury compounds.                                                      | DENR, Task Force      | 2008-2009 |

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| Action Item 5: Undertake research, analysis and strategic monitoring |                                                                                                                     |                       |            |
|----------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|-----------------------|------------|
| No.                                                                  | Action Plan                                                                                                         | Implementing Agencies | Timeframe  |
| 5a                                                                   | Improve or refine the mercury inventories by sources, especially from the top 5 categories                          | DENR                  | 2009-2010  |
| 5b                                                                   | Coordinate the exchange of information to have a national inventory                                                 | DENR                  | 2009-2010  |
| 5c                                                                   | Promote the collection of emission test data for large mercury releases and collection and analysis of fish samples | DENR, DOH             | Continuous |
| 5d                                                                   | Use of mercury dispersion modeling to estimate the emission estimates                                               | DENR                  | 2009-2011  |
| 5e                                                                   | Promote research on green chemistry for safer alternatives                                                          | DENR                  | Continuous |

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| Action Item 6: Register and dispose mercury stockpiles |                                                                                                                    |                           |           |
|--------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|---------------------------|-----------|
| No.                                                    | Action Plan                                                                                                        | Implementing Agencies     | Timeframe |
| 6a                                                     | Establish a Chemical Safety Information Network                                                                    | Task Force                | 2009 Q3   |
| 6b                                                     | Intensify the registry of mercury stockpiles arising from breakages and substitutions to mercury-free alternatives | DENR<br>DOH<br>Task Force | 2009 Q1   |
| 6c                                                     | Establish a Mercury Reduction Website                                                                              | DENR                      | 2009 Q1   |
| 6d                                                     | Develop a plan for the proper storage and disposal of the mercury stockpiles                                       | DENR                      | 2010      |
| 6e                                                     | Implement the disposal plan in a stage-wise manner based on the priority sectors                                   | DENR                      | 2010-2015 |

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| Action Item 7: Link with international agencies for coordination and cooperation in mercury reduction |                                                                                                                               |                       |           |
|-------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------|
| No.                                                                                                   | Action Plan                                                                                                                   | Implementing Agencies | Timeframe |
| 7a                                                                                                    | Link with foreign environmental and health agencies with experience on mercury disposal management                            | DENR<br>DOH           | 2009-2010 |
| 7b                                                                                                    | Request technical and financial assistance from multilateral and bilateral agencies for the implementation of the Action Plan | DENR                  | 2009-2010 |
| 7c                                                                                                    | Participate in forum and meetings on sharing of experiences and technologies                                                  | Task Force            | 2009-2011 |
| 7d                                                                                                    | Implement the Quick Start Programme for Small Scale and Artisanal Mining                                                      | UNEP<br>DENR          | 2009 Q4   |

预览已结束，完整报告链接和二维码如下：

[https://www.yunbaogao.cn/report/index/report?reportId=5\\_14209](https://www.yunbaogao.cn/report/index/report?reportId=5_14209)

