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**Intergovernmental negotiating committee
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Preparation of a global legally binding instrument on mercury

**Further comparative analysis of options for financial
mechanisms to support the global legally binding instrument on
mercury**

Note by the secretariat

1. At its second session, held in Chiba, Japan, from 24 to 28 January 2011, the intergovernmental negotiating committee to prepare a global legally binding instrument on mercury requested the secretariat to prepare a further comparative analysis of options for financial mechanisms to support the global legally binding instrument on mercury for consideration by the committee at its third session.
2. The secretariat has prepared the present note in response to that request. In doing so it has drawn on the suggested criteria for a financial mechanism or mechanisms¹ collated by the co-facilitators on financial resources and technical and implementation assistance during the committee's second session. The committee took note of the co-facilitators' report, including its recommendations for further work, and appended it to the report of the session (UNEP(DTIE)/Hg/INC.2/20).

Introduction

3. In mandating the negotiation of the mercury instrument, section III of decision 25/5 of the Governing Council of the United Nations Environment Programme (UNEP) provides, among other things, that the committee is to develop a comprehensive and suitable approach to mercury, including provisions specifying arrangements for capacity-building and technical and financial assistance. The decision recognizes that the ability of developing countries and countries with economies in transition to implement some legal obligations effectively under the future instrument would be dependent on the availability of capacity-building and technical and adequate financial assistance.
4. The secretariat has already prepared a number of documents on technical and financial assistance to assist the committee in its deliberations at its first and second sessions. Moreover, the secretariat prepared several documents during the preparatory process before the negotiations. Those documents are listed in annex III to the present note.

* UNEP(DTIE)/Hg/INC.3/1.

¹ The committee may establish more than one mechanism if it chooses. The usual approach of multilateral environmental agreements is, however, to establish one financial mechanism, which might comprise one or more funds and be operated by one or more entities. In the present note, the term "financial mechanism" should be understood to encompass both possibilities.

5. The present note contains two chapters that follow this introduction. Chapter I, in sections A and B, provides background information on the discussions on financial resources and technical and implementation assistance at the committee's first and second sessions; the co-facilitators' report requesting that the present note be prepared; and the continuing consultative process on financing options for chemicals and waste. Chapter II, in sections A, B and C, introduces criteria for and possible components of a financial mechanism for the mercury instrument, while section D identifies some issues that the committee may wish to consider at its third session. The note also has three annexes. Annexes I and II set out, in tabular form, a comparative analysis of various components of a multifaceted financial mechanism and possible categories and the extent of funding needs resulting from possible obligations under a mercury instrument. Annex III lists information on other documents that are available to the committee concerning possible provisions of the mercury instrument on capacity-building and technical and financial assistance.

I. Background

A. Discussions at the first and second sessions of the committee and the co-facilitators' report requesting a comparative analysis

6. Debate during the committee's first two sessions focused on two particular institutional models as potential vehicles for a financial mechanism to support implementation of the mercury instrument: the Global Environment Facility (GEF), which has served as the operational entity for the financial mechanism of the Stockholm Convention on Persistent Organic Pollutants and other agreements; and the Multilateral Fund for the Implementation of the Montreal Protocol on Substances that Deplete the Ozone Layer.

7. At its second session, the committee reviewed draft elements of a comprehensive and suitable approach to mercury (UNEP(DTIE)/Hg/INC.2/3) that had been prepared by the secretariat at the request of the committee at its first session. It was suggested that no decision could be taken on the selection of a financial mechanism to support implementation of the mercury instrument until agreement had been reached on criteria for making such a selection. Several representatives proposed such criteria, including that the mechanism should fit into the international environmental governance architecture and complement existing mechanisms; should have a broad donor base to share responsibility among and mobilize resources from Parties to the mercury instrument, non-Parties and the private sector; should be sustainable and ensure adequate resources on a long-term basis; should facilitate implementation through projects and programmes; should respond to the needs of the Conference of the Parties; should focus on measures related to the obligations under the mercury instrument; and should be able to leverage significant investments.

8. To gather views from representatives on the issue of financial resources and technical and implementation assistance during the committee's second session, the Chair requested two co-facilitators to consult with representatives during the session. The co-facilitators, reporting in plenary session on the results of their consultations, suggested that a comparative analysis should be undertaken of the forms that a financial mechanism for a legally binding instrument on mercury might take and specific areas of focus for funding. They suggested that the analysis should be undertaken by the secretariat, taking into account the criteria identified in the report of the co-facilitators (UNEP(DTIE)/Hg/INC.2/20, annex IV) further to the second session and the results of the continuing consultative process on financing options for chemicals and waste facilitated by the Division of Environmental Law and Conventions of UNEP, and should consider the most suitable mechanisms for the individual control measures required. The committee requested the secretariat to prepare the analysis suggested by the co-facilitators for consideration by the committee at its third session.

B. Consultative process on financing options for chemicals and wastes

9. The consultative process on financing options for chemicals and wastes was launched by the Executive Director of UNEP in recognition of the need for adequate resources in the field of chemicals and wastes management. The process was first announced at the fourth meeting of the Conference of the Parties to the Stockholm Convention, held in Geneva from 4 to 8 May 2009. As part of the process, the particular financial challenges faced by developing countries and countries with economies in transition in effectively implementing their chemicals and wastes agendas are being discussed. The process focuses in broad terms on identifying possible policy options for more secure financing for activities related to chemicals and wastes, including through existing and new mechanisms; raising political priority through awareness-raising; associating with other causes and mainstreaming into other sectors; synergistic use of delivery mechanisms; implementing innovative approaches such as chemicals leasing and the green economy concept; and exploring use of public-private partnerships and economic instruments to internalize the social and environmental costs of chemicals and waste management. Most

of the options under discussion are not mutually exclusive and would be mutually reinforcing if implemented in a coordinated manner.

10. The fourth meeting in the consultative process on financing options for chemicals and wastes was held in New York on 4 and 5 May 2011. The overall objective of the meeting was to discuss and analyse four financing tracks, namely: mainstreaming of sound management of chemicals and hazardous wastes; industry involvement, including public-private partnerships and the use of economic instruments at the national and international levels; a new trust fund similar to the Multilateral Fund; and introducing safe chemicals and wastes management as a new focal area, expanding the existing focal area for persistent organic pollutants under GEF or establishing a new trust fund under GEF. In particular, the meeting participants discussed a comparative analysis of the above-mentioned tracks with the objective of determining the role that each element could play in contributing to an integrated approach for the sound management of chemicals and wastes. They agreed that elements should be further developed for the fifth and final meeting. That included a further analysis of how to operationalize each track; a matrix outlining the obligations under each of the chemicals and wastes related conventions and the Strategic Approach to International Chemicals Management, with an indication of which track might fulfil the needs of parties seeking to meet those obligations; and a further analysis of a possible new trust fund for the chemicals and waste sector similar to the Multilateral Fund.

11. The fifth meeting in the consultative process is scheduled to take place in Bangkok on 6 and 7 October 2011. The overall objective of the meeting is to finalize and submit the outcome of the process to the Executive Director of UNEP as input to his final report on the consultative process. That report will be submitted to the UNEP Governing Council for consideration at its twelfth special session, in 2012, with a view to achieving possible decisions at its twenty-seventh regular session, in 2013, and to the International Conference on Chemicals Management at its third session, in 2012.

12. A summary of the outcome of the fourth meeting in the consultative process will be made available as document UNEP(DTIE)/Hg/INC.3/INF/3, and information on the outcome of the fifth meeting, which will take place shortly before the committee's third session, will be given orally at that session.

II. Introduction to the criteria for and possible components of a financial mechanism for the mercury instrument

13. As noted above, finance discussions in the mercury negotiations to date have focused mainly on institutional models that could serve as operational entities for a financial mechanism. By contrast, the present analysis concentrates on the characteristics that parties to the negotiations have identified as desirable for the financial mechanism in terms of its scope, resources, links with compliance, synergy and governance arrangements, while largely leaving aside the question of the possible institutional home for the financial mechanism. This approach was adopted for several reasons. The first is the idea that form should follow function, because it is arguably more appropriate to determine first what functions the financial mechanism for the mercury instrument may need to perform before considering what form (institutional set-up) would best facilitate their performance.

14. Second, the secretariat recognizes that the ultimate decision on the institutional home for the financial mechanism will probably reflect political as much as practical considerations, particularly as some Governments have indicated a preference to locate the mechanism within the existing GEF framework, while others have suggested that it should be operated as a stand-alone entity similar to the Multilateral Fund. Third, past experience and an assessment of the probable funding needs and associated compliance requirements that are emerging at this stage of the negotiations suggest that a multifaceted approach may best suit the mercury instrument, and that no single existing institutional model may be suitable without adaptation. Fourth, it may be premature to identify any particular institutional arrangement for the mercury instrument's financial mechanism when the broader issue of financing the implementation of international chemicals and wastes instruments is currently in a state of flux. For example, it is possible that the aforementioned UNEP consultative process, the efforts to achieve greater synergies between the existing multilateral environmental agreements and the Strategic Approach to International Chemicals Management, and the deliberations on international environmental governance at the 2012 United Nations Conference on Sustainable Development (also known as "Rio + 20") may lead to the adoption of a new collective approach, including a joint financial mechanism for several instruments, before the mercury negotiations are concluded. It was therefore considered more appropriate for the present analysis to remain neutral on the question of the appropriate institutional home for the mercury instrument's financial mechanism and instead to focus on outlining the necessary characteristics of such a mechanism.

15. The present note therefore examines two subjects: first, the criteria for a financial mechanism collated by the co-facilitators during the committee's second session and the possible components of a financial mechanism that might respond to the criteria and, second, the types and magnitude of funding that may be required in relation to the obligations under discussion for the future mercury instrument.

A. Criteria collated by the co-facilitators at the committee's second session

16. The criteria for financial resources and technical and implementation assistance to support the implementation of the mercury instrument set out in the co-facilitators' report were compiled during the co-facilitators' informal consultations with Governments at the committee's second session and reflect the plenary discussions that took place during the session. They are intended to form the basis for the comparative analysis undertaken by the secretariat but have not been adopted by the committee. To facilitate the comparative analysis, the criteria have been grouped into five major categories: scope and coverage; mobilizing resources and replenishment; facilitating compliance; promoting synergies; and governance issues. The criteria in the five categories are listed in subsections 1–5, immediately below. The numbering in square brackets before each criterion refers to the location in the co-facilitators' report where it is referenced.

1. Scope and coverage

17. Criteria pertaining to scope and coverage relate to the capacity of the financial mechanism to meet the required level of funding and the type of activities or projects it might cover. Such criteria might include that a financial mechanism should:

- (a) [8 (c)] Facilitate implementation of the mercury instrument through the funding of projects and programmes;
- (b) [8 (f)] Meet the agreed incremental costs linked to the global benefits of protecting human health and/or the global environment from the release of mercury and its compounds;
- (c) [8 (g)] Meet the agreed incremental costs of developing-country Parties in moving from mercury-added products and processes to alternatives;
- (d) [8 (h)] Provide resources to support national activities to implement the regulatory/control measures agreed under the mercury instrument;
- (e) [8 (i)] Provide funding for the development and implementation of national implementation plans as required;
- (f) [8 (l)] Take into account the variation in domestic capabilities to implement effective measures;
- (g) [8 (o)] Provide funding under legally binding or voluntary approaches or both.

2. Mobilizing resources and replenishment

18. Criteria pertaining to mobilizing resources and replenishment deal with the mechanism's capacity to ensure funding from a variety of sources, including from Parties, non-parties and the private sector, in a sustainable and long-term manner. Such criteria might include that a financial mechanism should:

- (a) [8 (k)] Recognize that funding will come foremost from within countries;
- (b) [8 (p)] Consist of funding from various sources;
- (c) [8 (q)] Be cost-effective and efficient;
- (d) [8 (r)] Be able to leverage funds in a sustainable manner;
- (e) [8 (s)] Be able to leverage significant investments;
- (f) [8 (t)] Be based on fair burden sharing between developed parties in providing the resources based on assessed contributions;
- (g) [8 (u)] Involve voluntary contributions;
- (h) [8 (v)] Assess and decide on, at regular intervals and with the involvement of Parties, the level of funding needed;
- (i) [8 (w)] Have as broad a donor base as possible so as to mobilize resources from Parties, non-parties and the private sector, recognizing the responsibility of industry;
- (j) [8 (x)] Provide sound and sustained support through a system for replenishment of funds and long-term implementation of activities.

3. Facilitating compliance

19. Compliance criteria relate to the financial mechanism's capacity to channel available funding to activities and projects that facilitate compliance with the obligations set forth in the mercury instrument. Such criteria might include that a financial mechanism should:

- (a) [8 (e)] Focus on measures related to obligations;
- (b) [8 (m)] Facilitate compliance with both specific and general obligations of the Parties;
- (c) [8 (n)] Provide a link between the funding of activities and verifiable compliance with specific binding obligations based on regular reporting by the Parties.

4. Promoting synergies

20. Synergies criteria relate to the mechanism's capacity to compliment and facilitate coordination and cooperation with other relevant international instruments; to fit within the overall international environmental governance architecture; and to optimize co-benefits from implementing other projects and programmes in areas such as waste management, climate change prevention and water management. Such criteria might include that a financial mechanism should:

- (a) [8 (aa)] Enhance cooperation and coordination among chemicals and waste related multilateral environmental agreements, programmes and processes and the Strategic Approach to International Chemicals Management through an integrated approach;
- (b) [8 (bb)] Complement and link to existing mechanisms in the area of chemicals and wastes management;
- (c) [8 (cc)] Optimize co-benefits with, for example, waste management, climate and water;
- (d) [8 (z)] Fit into the international environmental governance structure and support and complement existing mechanisms.

5. Governance

21. Governance criteria pertain to the financial mechanism's capacity to support projects and programmes that facilitate implementation of the mercury instrument, including the capacity to respond to the needs of Parties and to the guidance given and priorities set by the governing body of the mercury instrument. Such criteria might include that a financial mechanism should:

- (a) [8 (a)] Operate under the guidance of the governing body of the mercury instrument;
- (b) [8 (b)] Be accountable to the governing body of the mercury instrument;
- (c) [8 (d)] Respond to the needs of Parties to the mercury instrument as determined by the Parties;
- (d) [8 (j)] Recognize that fulfilment of some legal obligations arising out of a new global legally binding instrument will require capacity-building and technical and financial assistance in order to be effectively implemented by developing countries and countries with economies in transition;
- (e) [8 (y)] Recognize that full operation of the financial mechanism is a key element for implementation of the mercury instrument.

B. Possible components of a financial mechanism for the mercury instrument

22. As negotiations are only just approaching the midway point, it is impossible to know definitively what obligations will ultimately be included in the mercury instrument and what the corresponding requirements for financial and technical assistance will be. Nevertheless, the secretariat has identified three possible components or options that could be incorporated into a financial mechanism to meet the varied needs. It should be emphasized that these components are suggested solely to focus discussions and not to preempt in any way what the committee may determine to be appropriate. The three distinct components reflect an assumption that the need for financial and technical support will vary from party to party and will vary over time. It is also assumed that the incremental costs of implementation will be less than would otherwise be the case where Parties have already established the institutional infrastructures necessary to implement other multilateral environmental agreements related to chemicals and wastes.

23. As noted above, no judgement is made on whether the components should be housed under one or more operational entities or whether they should form part of a financial mechanism serving only the mercury instrument or also several other instruments.

24. The three possible components, which are detailed and compared with approaches under other instruments below, are a general-purpose, long-term fund; a short-term fund for initial enabling activities; and a special funding arrangement for relatively large-scale projects.

25. A general-purpose long-term fund would come into operation once the mercury instrument entered into force, and each Party would be eligible for support from the fund once the instrument entered into force for that Party; thereafter the fund would be expected to operate as long as the instrument was in force. Such a fund would support a broad range of small to medium-sized activities carried out by developing-country Parties and Parties with economies in transition in an effort to implement and meet their obligations under the instrument. The fund's role would be similar to that of both GEF in supporting implementation of the Stockholm Convention and the Multilateral Fund in relation to the Montreal Protocol, but would be tailored to meet the needs of the mercury instrument. For example, without necessarily limiting the choice of host to any particular institution, it could make provision for a compliance mechanism similar to that of the Montreal Protocol and a system of accountability to the instrument's governing body similar to that provided for the Adaptation Fund under the United Nations Framework Convention on Climate Change. Activities to be supported by the general mercury fund could include:

- (a) Reducing the global mercury supply through the environmentally sound storage of elemental mercury;
- (b) Phasing out mercury-added products, such as batteries, measuring devices, electrical switches and relays, mercury-containing lamps and dental amalgam;
- (c) Reducing intentional emissions of mercury from industrial processes, such as those that use mercury as a catalyst (chlor-alkali and vinyl chloride monomer production), artisanal and small-scale gold mining, manufacture of mercury-added products, recovery, recycling and reprocessing of mercury, and non-ferrous metals mining and smelting;
- (d) Reducing unintentional emissions of mercury from industrial processes such as non-ferrous metals production and cement production, from energy production facilities such as coal-fired power plants and industrial boilers, and from waste incineration facilities;
- (e) Reducing unintentional emissions from mercury waste and contaminated sites, including from facilities for the disposal of mercury-containing waste;
- (f) Building capacity and raising awareness, including through research on adverse impacts, environmental transport, trade and availability of mercury-free alternatives, and through information campaigns, health advocacy and the education and monitoring of vulnerable populations;
- (g) Measuring effectiveness, for example through monitoring and evaluation activities;
- (h) Further developing institutional infrastructure to facilitate national coordination, public awareness-raising, regulation of international trade, information exchange, national reporting and other tasks, possibly including the maintenance of national coordinating officers along the lines of national ozone officers.

26. A short-term fund for initial enabling activities would provide rapid support for small-scale projects to be carried out by most developing-country Parties and Parties with economies in transition in the period soon after entry into force of the new mercury instrument in preparation for later more comprehensive implementation. Such a fund could also support projects to be carried out by developing-country signatories and signatories with economies in transition in the interim period between its adoption and its entry into force for each Party. To accelerate these early implementation efforts, the fund might ideally adopt simplified procedures and short processing times for applications. It might function in a similar fashion to the time-limited trust fund established under the Quick Start Programme of the Strategic Approach or the GEF small grants programme. The provision for supporting pre-ratification activities of signatories to the mercury instrument would be similar to that in the Stockholm Convention to provide signatories support in developing national implementation plans. Activities to be supported by an enabling activities fund for the mercury instrument could include:

- (a) Preparation of inventories to identify and quantify national mercury uses and releases;
- (b) Carrying out follow-on analyses of national mercury pollution problems, resulting in the establishment of national profiles and initial action plans, for example;

(c) Preparing national legislative and regulatory measures to give effect to the instrument upon its entry into force for the Party concerned;

(d) Establishment of national institutional arrangements for coordinating and spearheading implementation of the mercury instrument, potentially involving integration with existing institutional arrangements for other relevant instruments.

27. A special funding arrangement for larger-scale projects would support the small number of developing-country Parties and Parties with economies in transition that will require more substantial investment projects to meet their obligations after the entry into force of the instrument for them. Such projects might typically involve the conversion of manufacturing and power generation infrastructure to reduce substantial mercury emissions and releases. Information currently available to the secretariat, which is summarized in section (c) of annex II, indicates that relatively few potential Parties to the instrument would need to undertake projects of this nature. Taking into account the potential commercial returns generated by the modernization of the utilities and industries involved, the arrangements for support under the mercury instrument's financial mechanism could involve a range of elements including outright grants, subsidies, concessionary loans and public-private partnerships. They might also take into consideration the potential for co-benefits and synergies with projects being undertaken to implement other international agreements such as the Framework Convention on Climate Change, the Montreal Protocol and the Stockholm Convention. As in the case of the general and enabling activity funds outlined above, there would be a range of institutional options for administering the special arrangement for larger-scale projects. The entity given responsibility for the general fund might also be capable of managing the special arrangement for larger-scale projects. Alternatively, it might be more appropriate to engage institutions such as the World Bank or regional development banks. Activities to be supported by the special arrangement for larger-scale mercury projects could include:

(a) Introduction or enhancement of control measures in power generation facilities to reduce mercury emissions;

(b) Conversion of larger-scale manufacturing facilities to replace mercury-based production processes with non-mercury alternatives;

(c) Introduction or enhancement of control measures in larger-scale mining operations to reduce mercury emissions.

28. Annex I to the present note sets out a table analysing how the three possible funding components listed above could meet the criteria.

29. Annex II sets out an analysis, for each of the funding components listed above, of the types and magnitude of funding that may be required in relation to the obligations under discussion in the negotiation of the mercury instrument. The tables outline some initial considerations based on the possible needs for assistance listed above. At this stage, these are just suggestions, without prejudice to the committee's final conclusions.

C. Additional observations

30. There may be a number of potential supplementary components that would not provide direct funding and, therefore, would not be part of a formal financial mechanism, but that might be encouraged in the mercury instrument itself, in resolutions or decisions of the conference of plenipotentiaries when it adopts the instrument, or by the instrument's future governing body. Examples of such supplementary components could include:

(a) National funding sources (including mainstreaming);

(b) Private-sector capital investments in process changes and alternative technologies;

(c) Harnessing market forces to promote modernization and conversion to non-mercury alternative products and processes;

(d) Bilateral development cooperation;

(e) Co-benefits from financing available under other financial mechanisms, such as those linked to climate change.

31. The early availability of initial funding, including potential assistance for countries' ratification preparations before the instrument's entry into force, may be critical in building political support for an overall agreement on financing. This was the case during the negotiation of the Stockholm Convention, when the Government of Canada, at the fourth session of the intergovernmental negotiating committee in March 2000, announced the establishment of the CAD 20 million Canada Persistent Organic

Pollutants (POPs) Trust Fund to be administered by the World Bank. The purpose of that fund was to support capacity-building in developing countries and countries in transition in order to reduce or eliminate releases of persistent organic pollutants and to assist those countries in implementing the Stockholm Convention. In addition, as noted above, GEF funding was made available to signatories to the Stockholm Convention prior to their becoming parties and the entry into force of that convention, in order to support development of national implementation plans. Other examples include commitments of around \$6 million announced by donors at the first session of the International Conference on Chemicals Management, held in Dubai, United Arab Emirates, from 4 to 6 February 2006, to launch the Quick Start Programme that accompanied the adoption of the Strategic Approach. More recently, substantial new funding commitments, announced by the Governments of Japan, the United Kingdom of Great Britain and Northern Ireland and others played an important role in facilitating a positive outcome at the tenth meeting of the Conference of the Parties to the Convention on Biological Diversity in Nagoya, Japan, in October 2010.

32. In addition to governance issues relating to the role of an instrument's governing body in establishing priorities and eligibility for funding and monitoring compliance, there is also the matter of arrangements for the delivery of project funding. In the case of GEF support for implementation of the Stockholm Convention, for example, parties are required to work with one of a number of designated implementing agencies when applying for funding and executing projects. By contrast, only Governments themselves, in addition to non-governmental organizations in limited circumstances, are eligible to apply for support from the Quick Start Programme of the Strategic Approach, and may execute projects with or without the support of an intergovernmental organization. The climate change Adaptation Fund, for which GEF provides secretariat services, has adopted a system of accreditation for national entities seeking to undertake projects with its support, which was recently extended to multilateral implementing entities, including some intergovernmental organizations, to allow them to play an intermediary role as implementing agencies.

D. Possible considerations for the committee

33. The committee may wish to consider the following questions in its deliberations on a financial mechanism for the new mercury instrument:

(a) Are the possible components of a financial mechanism for the mercury instrument identified above the correct ones?

(b) Would a single operational entity be able to meet in full all the needs for implementation support under the instrument or would multiple entities better satisfy the varying needs of Parties?

(c) How might a financial mechanism with multifaceted components be explained in the treaty text and other documents? Normally, a convention provides very little detail with regard to the functioning and operation of a financial mechanism or mechanisms, as the details are usually elaborated in resolutions of the conference of plenipotentiaries that adopts the instrument, in decisions of the committee that negotiated it at its sessions following adoption of the instrument and prior to its entry into force, or in decisions of the governing body of the instrument after its entry into force.

(d) How might developments in the UNEP-led consultative process on financing options for chemicals and wastes influence the consideration of a financial mechanism under the mercury instrument? Are there any lessons from the consultative process that would be important to take into consideration? A number of options are under discussion in the consultative process, including a possible multi-purpose fund covering a range of chemicals and wastes issues. The committee may wish at this stage to concentrate its discussions on the need for and attributes of a financial mechanism, and consider the most appropriate institutional arrangements and location when the outcome of the consultative process is known.

Annex I

Comparative analysis of various components of a multifaceted financial mechanism

Criteria	General-purpose long-term fund to support implementation of the mercury instrument	Short-term fund to support initial enabling activities	Special funding arrangement to support larger-scale projects
1. Scope and coverage	<p>The co-facilitators listed a number of criteria mentioned by parties in relation to the scope and coverage of a financial mechanism. Some parties felt that financing should be provided to meet the agreed incremental costs linked to the global benefits of protecting human health and/or the global environment from the release of mercury and its compounds. Some specified that help should be provided in meeting the agreed incremental costs of developing-country Parties in moving from mercury-added products and processes to alternatives, while others referred to funding for the development and implementation of national implementation plans. Some envisaged resources to support national activities to implement the control measures agreed under the mercury instrument. Others were of the view that funding might support implementation of either legally binding or voluntary approaches or both. Some stipulated that financial support should take into account the variation in countries' abilities to implement effective measures.</p>		
	<p>A general-purpose long-term fund would come into operation once the mercury instrument entered into force, and each Party would be eligible for support from the fund once the instrument entered into force for that Party; thereafter the fund would be expected to operate as long as the instrument was in force. Such a fund would support a broad range of small to medium-sized activities carried out by developing-country Parties and Parties with economies in transition in their efforts to implement and meet their obligations under the instrument. Whether the fund is administered under the control of the Conference of the Parties to the instrument or under a separate governance structure might influence its ability to respond to priorities identified by the Parties. The committee would need to take policy decisions relating to the scope of coverage of the fund (including whether it should support voluntary and/or legally binding obligations, how incremental costs would be described) and the extent to which industry or industry bodies should be expected to contribute to defraying the implementation costs of individual Parties.</p>	<p>A short-term fund would provide rapid support for small-scale projects to be carried out by most developing-country Parties and Parties with economies in transition in the period soon after entry into force of the instrument in preparation for later more comprehensive implementation. It might limit its funding to enabling activities, such as development of national inventories, identification of capacity and legislation, development of national plans, programmes and activities to implement the mercury instrument and analysis, interagency coordination and public participation activities.</p> <p>In addition, the fund could also support projects to be carried out by developing-country signatories and signatories with economies in transition in the interim period between the instrument's adoption and entry into force.</p> <p>It might not provide for implementation activities, at least in the short term. Co-financing might not be a requirement.</p>	<p>Consideration needs to be given to the scope and coverage of large financial institutions and their ability to respond to mercury priorities and large-scale funding needs. This may require further consultation in the future between the secretariat of the mercury instrument and the institution or institutions involved to address specific requests from the Conference of the Parties to the mercury instrument.</p> <p>The issue of whether funding arrangements should be limited to incremental costs might be particularly relevant in the case of such larger-scale projects.</p>
	<p>Examples of how existing institutions address similar requirements:</p> <p>GEF is an independent financial organization that provides eligible countries with new and additional funding to meet the agreed incremental costs of measures to achieve agreed global environmental benefits. It funds projects and programmes that are country driven and based on national sustainable development priorities. Each replenishment of the GEF trust fund is based on negotiations between contributing Governments with regard to the total</p>	<p>Examples:</p> <p>The Strategic Approach to International Chemicals Management is a policy framework for promoting chemical safety around the world. Its governing body, the International Conference on Chemicals Management, decided to establish the Quick Start Programme to support initial</p>	<p>Examples:</p> <p>The World Bank is a vital source of financial and technical assistance to developing countries around the world. Its mission is to fight poverty for lasting results and to help people help themselves and their environment by providing resources, sharing knowledge,</p>

Criteria	General-purpose long-term fund to support implementation of the mercury instrument	Short-term fund to support initial enabling activities	Special funding arrangement to support larger-scale projects
	<p>amount of the replenishment and the amount to be contributed by each Government.</p> <p>If a GEF-based approach were chosen, the eligibility of projects to receive funding would be determined by both the rules laid down by the Parties to the mercury instrument and the eligibility criteria set out in the GEF Instrument; the latter limits funding to projects that deliver global environmental benefits and covers only the incremental costs of such projects. The fifth replenishment of GEF, for the period 2010–2014, expands the persistent organic pollutants focal area to cover sound chemicals management more broadly, with additional funding set aside for implementation of the Strategic Approach and mercury projects. It explicitly sets the stage to support a future global mercury instrument in the same way it currently supports the Stockholm Convention.</p> <p>To date under GEF, a large and diverse portfolio of chemicals and waste projects has been implemented, including projects to build the capacity of developing countries to address adverse impacts of chemicals. GEF also provided support for enabling activities during the interim period before the entry into force of the Stockholm Convention.</p> <p>Opportunities exist through GEF for recipient countries to be directly involved in the design and implementation of projects. Co-financing is a requirement in GEF-funded investment projects. No co-financing was required for enabling activities, however.</p> <p>The Adaptation Fund under the United Nations Framework Convention on Climate Change has some features that set it apart from other international financing mechanisms. GEF provides secretariat services to the Fund’s board, and the World Bank is a trustee, both on an interim basis. A key innovative principle of the Fund is direct access for developing countries. Vulnerable developing countries can nominate domestic institutions for accreditation as national implementing entities, which are responsible for endorsing project and programme proposals from their countries and are the direct recipients of funding. Countries also have the option of going through multilateral implementing entities. The institutions nominated must meet standards that ensure sound fiduciary management and oversight. The implementing entities are responsible for distributing project and programme financing provided by the Fund to the government agencies, non-governmental organizations and other stakeholders that will execute the projects and programmes. Funding for projects and programmes is on a full adaptation cost basis, which means that funding is available to defray the costs associated with implementing specific adaptation activities that address the adverse effects of climate change.</p> <p>The Multilateral Fund is a dedicated fund that focuses on a single multilateral environmental agreement. It has been limited to paying the incremental costs</p>	<p>enabling capacity-building and implementation activities in developing countries, least developed countries, small island developing States and countries with economies in transition. The Quick Start Programme comprises a UNEP trust fund, established as a voluntary, time-limited trust fund to provide seed money to support the objective and strategic priorities of the Programme and multilateral, bilateral and other forms of cooperation.</p> <p>Developing countries and countries with economies in transition are eligible for support from the trust fund. Approval of projects takes into account geographic and sectoral balance and pays particular attention to the urgent needs and requirements of least developed countries and small island developing States. Proposals may be presented by Strategic Approach participating Governments that have granted formal recognition to the Strategic Approach, at a minimum by having designated an official Strategic Approach national focal point. On an exceptional basis, and having regard to resources and administrative capacity available, representatives of civil society networks participating in the Strategic Approach may also present project proposals, subject to endorsement of the application by the Strategic Approach national focal point in the countries hosting the projects.</p>	<p>building capacity and forging partnerships in the public and private sectors.</p> <p>It is made up of two development institutions owned by 187 member countries: the International Bank for Reconstruction and Development (IBRD) and the International Development Association (IDA). They provide low-interest loans, interest-free credits and grants to developing countries for a wide array of purposes that include investments in education, health, public administration, infrastructure, financial and private sector development, agriculture and environmental and natural resource management.</p> <p>IDA is the part of the World Bank that helps the world’s poorest countries. Established in 1960, IDA aims to reduce poverty by providing interest-free credits and grants for programmes that boost economic growth, reduce inequalities and improve people’s living conditions. IDA complements the other lending arm of the World Bank, the IBRD, which serves middle-income countries with capital investment and advisory services.</p>

Criteria	General-purpose long-term fund to support implementation of the mercury instrument	Short-term fund to support initial enabling activities	Special funding arrangement to support larger-scale projects
	<p>of developing-country parties to enable them to comply with the control measures of the Montreal Protocol. It is replenished by contributions from specified developed country parties calculated on the basis of the United Nations scale of assessments.</p> <p>Under a dedicated fund approach similar to the Multilateral Fund the eligibility of projects to receive funding would be determined solely under the rules of the mercury instrument and decisions of its conference of the parties.</p> <p>To the extent that the function of a dedicated fund modelled on the Multilateral Fund is to enable compliance, the scope of projects that it could support might be narrower than that of projects supported by a GEF-operated financial mechanism. On the other hand, co-financing is not a requirement under the Multilateral Fund.</p>		
<p>2. Mobilizing resources and replenishment</p>	<p>The co-facilitators listed several criteria mentioned by parties in relation to mobilizing resources for and replenishment of a financial mechanism. Thus, to provide sound, sustained and long-term support for implementation activities, a financial mechanism would need a system for the replenishment of funds; some said that replenishment should be based on assessed contributions from developed-country parties, while others envisaged a system of voluntary contributions. It was also said that a financial mechanism should have as broad a donor base as possible, including Parties, non-parties and the private sector, although it was also said that funding should come primarily from within countries. Some parties also said that a financial mechanism should be cost-effective and efficient. Some also emphasized that the funding mechanism should be able to leverage significant investments to support compliance with control measures under the mercury instrument.</p> <p>Current examples of funding mechanisms, operating in both the chemicals and wastes cluster and elsewhere, include mechanisms funded through both voluntary and assessed contributions. While assessed contributions provide a more stable funding base, they may be associated with lower flexibility with regard to the types of activities to be funded. The committee would need to decide on the system for replenishment of funds.</p> <p>Examples of how existing institutions address similar requirements: GEF is funded every four years through contributions to the GEF trust fund from contributing participants. GEF replenishments are the result of political negotiations conducted outside the conventions that GEF serves. Should a GEF trust fund approach be chosen, the mercury instrument might, under a memorandum of understanding with GEF, submit recommendations to GEF regarding the amount of funds necessary to assist Parties to meet their commitments. GEF, however, would not be required to adhere to such recommendations, and the nature of the replenishment negotiations might preclude the Conference of the Parties from having any direct control over them.</p>	<p>Replenishment of such a fund might be based on voluntary contributions from Governments and a broad range of stakeholders.</p> <p>Experience with other, similar funds shows that such a fund can be a relatively swift disbursement mechanism; offering resources through a relatively undemanding bureaucratic process.</p> <p>Examples: For enabling activities, the Quick Start Programme provides a viable model in which voluntary contributions are sufficient to tackle particular issues. The Trust Fund, officially established by UNEP on 1 December 2006, is open to receive contributions until 30 November 2012. Since 2006, the Trust Fund has received contributions totalling \$27,966,320 from 24 donors. While the Programme is based on voluntary contributions, the Executive Board has developed a resource</p>	<p>For larger-scale programmes, the possibility of accessing modes of funding such as concessional loans may expand the range of possible resources.</p> <p>Examples: IDA is one of the largest sources of assistance for the world's 79 poorest countries, 39 of which are in Africa. It is the single largest source of donor funds for basic social services in the poorest countries. IDA lends money (in the form of credits) on concessional terms. This means that IDA credits have no interest charge and repayments are stretched over 35–40 years, including a 10-year grace period. IDA also provides grants to countries at risk of debt distress. Since its inception, IDA has</p>

Criteria	General-purpose long-term fund to support implementation of the mercury instrument	Short-term fund to support initial enabling activities	Special funding arrangement to support larger-scale projects
	<p>The Adaptation Fund is the first fund to be financed solely by an international revenue source that exists because of an internationally agreed climate policy framework. Climate change mitigation projects registered under the Clean Development Mechanism channel two percent of their certified emission reductions through the Fund. The certificates reflecting the reductions are subsequently sold on the carbon market. The Fund can also receive funding from other sources. The World Bank serves as the trustee for the Fund and, through the certified emission reduction monetization programme, is responsible for monetizing the certified emission reductions, holding the proceeds in a trust fund and disbursing them at the instruction of the Adaptation Fund Board.</p> <p>The Multilateral Fund is based on equitable burden sharing inherent in its system of assessed contributions. The amount of each replenishment is based on a needs assessment and agreed upon by the parties themselves. The Technology and Economic Assessment Panel assesses the funding requirements for the Multilateral Fund. Funding requirements are prepared using a number of scenarios, and take into account forward commitments under approved investment projects, new projects designed to reduce consumption, possible new closure projects, and supporting activities, including the country programme. Funding replenishment is calculated on a triennial basis.</p>	<p>mobilization strategy to help ensure its sustainability, including through the replenishment of the Trust Fund on a steady and equitable basis by as broad a donor group as possible.</p>	<p>provided credits and grants totalling \$222 billion, averaging \$13 billion a year in recent years; the largest share of these funds, about 50 percent, has gone to Africa.</p> <p>IDA-financed operations address primary education, basic health services, clean water and sanitation, environmental safeguards, business climate improvements, infrastructure and institutional reforms. These projects pave the way toward economic growth, job creation, higher incomes and better living conditions.</p>
3. Facilitating compliance	<p>The co-facilitators listed several criteria for a financial mechanism mentioned by parties in relation to facilitating compliance with the obligations of the mercury instrument. Some parties said that the financial mechanism should focus on activities and projects that facilitate compliance with the obligations imposed by the mercury instrument. Some were of the view that it should aim to facilitate compliance with both specific and general obligations of the Parties. The instrument would need quantifiable and measurable obligations, combined with regular reporting by Parties, in order to provide a link between the funding of activities and verifiable compliance with specific binding obligations.</p>		
	<p>Existing general-purpose funds include examples that focus on compliance, in addition to others with no specific compliance-related aspects. The extent to which compliance and funding are linked is a policy decision that will require further consideration by the committee.</p>	<p>Given that a short-term fund is by definition intended to operate for a limited period of time, it is unlikely that it would focus on compliance issues, particularly as in the pre-ratification period there would be no legal requirement for potential Parties to comply. Such a fund might, however, provide financing for a broad range of activities and projects not specifically focused on enabling compliance.</p>	<p>As with the general-purpose long-term fund, approval of projects under a special large project funding arrangement might also be linked to compliance considerations.</p>
	<p>Examples of how existing institutions address similar requirements:</p> <p>GEF does not focus specifically on enabling compliance. Under the Stockholm Convention, substantial support was provided to facilitate the development of national implementation plans, which set out how a party will ensure compliance with its obligations under the Convention. A broad range of the</p>	<p>Examples:</p> <p>As the Strategic Approach is not a legally binding instrument, the Quick Start Programme does not focus specifically on enabling</p>	

Criteria	General-purpose long-term fund to support implementation of the mercury instrument	Short-term fund to support initial enabling activities	Special funding arrangement to support larger-scale projects
	<p>activities and projects included in these implementation plans is eligible for funding under the GEF.</p> <p>The Multilateral Fund, unlike the convention financial mechanisms operated by GEF, is designed to enable compliance rather than implementation. The Fund has helped to establish national ozone units in more than 140 developing countries. These units are responsible for monitoring, managing and implementing the national strategy to ensure compliance with the Montreal Protocol, at a cost of around USD 7 million per year.</p> <p>Should a Multilateral Fund approach be chosen, the dedicated fund should focus on promoting compliance, with a strong monitoring system that links the availability of funding with the recipient Party's compliance.</p>	compliance.	
4. Promoting synergies	<p>The co-facilitators listed several criteria mentioned by parties in relation to promoting synergies with other relevant instruments and policy approaches. Some parties were of the view that the financial mechanism should aim to enhance cooperation and coordination with other chemicals and waste related multilateral environmental agreements, programmes and processes, including the Strategic Approach, through an integrated approach. Some underlined that implementation of the mercury instrument and its obligations might be facilitated by optimizing co-benefits in relation to, for example, waste management, climate change and water related activities and instruments. Some parties emphasized the need for the mechanism to fit into the international environmental governance structure and to support and complement existing mechanisms in the area of chemicals and waste management.</p> <p>A general-purpose fund to support implementation of the mercury instrument would need to have a clear mandate, specifying the types of activities to be covered. The committee would need to consider the extent to which activities relating to other substances could be provided through a fund linked to the mercury instrument. When considering issues on which significant co-benefits can be achieved by cooperating with other instruments or programmes, the extent of fund sharing would need to be decided in consultation with their governing bodies.</p> <p>Examples of how existing institutions address similar requirements:</p> <p>GEF has the potential to support activities through which recipient countries seek to meet their commitments in respect of more than one global convention or environmental issue. The fifth GEF replenishment places all chemicals activities, including those relating to persistent organic pollutants, ozone-depleting substances, mercury and sound chemicals management, under a single chemicals programme, and explicitly recognizes the linkages between chemicals and hazardous waste and all other key areas covered by GEF, thereby providing access to resources beyond those specifically set aside for the chemicals focal area.</p> <p>Should a GEF-based approach be chosen, implementation activities could take advantage of synergies and connections across these key areas, reflecting the multiple needs of recipient countries with regard to sustainable development.</p>	<p>If the scope of such a fund were restricted to mercury and mercury waste issues, it would be limited in its ability to complement and achieve synergies with activities related to other global environmental issues, but could offer support for activities related to other chemicals and waste issues.</p> <p>Examples:</p> <p>Promoting synergies is integral to the Quick Start Programme as a result of the comprehensive scope and ambitious goals for sound chemicals management of the Strategic Approach and its multi-stakeholder, multisectoral character.</p>	<p>Some large-scale projects may provide opportunities for synergies, especially in the area of conversion to cleaner energy production.</p>

Criteria	General-purpose long-term fund to support implementation of the mercury instrument	Short-term fund to support initial enabling activities	Special funding arrangement to support larger-scale projects
	<p>For example, the scope of climate change projects that address emissions from coal-fired power plants might be expanded to cover the incremental costs of measures aimed at the abatement of mercury emissions.</p> <p>A Multilateral Fund-based approach would be somewhat limited in its ability to provide complementarity and potential for synergies with activities related to other global environmental issues.</p>		
<p>5. Governance</p>	<p>The co-facilitators listed a number of criteria mentioned by parties in relation to governance aspects of a financial mechanism. It was said that fulfilment of some legal obligations arising out of a new global legally binding instrument would require capacity-building and technical and financial assistance in order to be effectively implemented by developing countries and countries with economies in transition. Some parties supported a financial mechanism that, as far as possible, would be responsive to the needs of Parties and the guidance given and priorities set by the governing body of the mercury instrument. Some emphasized that the mechanism should be accountable to the governing body of the mercury instrument. Some envisaged a need to assess and decide on, at regular intervals and with the involvement of Parties, the level of funding needed.</p> <p>There are examples of general funds that are administered directly by the Parties to the instruments under which they were established, in addition to funds that have separate governance structures. It may be possible to create a Party-driven portion of a general fund, with priorities established under the mercury instrument, while the fund is administered within an existing trust fund structure. Consideration needs to be given to the costs and benefits of establishing a stand-alone trust fund in comparison to using an existing trust fund structure.</p>	<p>To accelerate early efforts to implement the new mercury instrument, such a fund might ideally use simplified procedures and short processing times for applications. It might be administered and operated economically by the secretariat of the instrument itself, as is the case for the Quick Start Programme and the Basel Convention's technical cooperation trust fund. Alternatively, it might be deemed appropriate to give the role to a specialist financial institution, in the same way that GEF has been tasked with administering the Small Grants Programme, which supports projects in the GEF focal areas, including projects aimed at the elimination of persistent organic pollutants through the implementation of the Stockholm Convention. In the case of the mercury instrument, this role might be given to whichever entity is designated to administer the general-purpose long-term mercury fund.</p> <p>The cost of administering a free-standing short-term fund is difficult to estimate at this stage. Experience with the Quick Start Programme indicates that such a fund could be operated with a very minimal infrastructure at a relatively low cost.</p>	<p>Consideration needs to be given to the governance mechanisms of large financial institutions and how to ensure that the priorities relating to mercury are addressed within this structure. This may require further consultation in the future between the secretariat of the mercury instrument and the institutions involved, and might require specific requests from the Conference of the Parties to the mercury instrument.</p>

Criteria	General-purpose long-term fund to support implementation of the mercury instrument	Short-term fund to support initial enabling activities	Special funding arrangement to support larger-scale projects
	<p>Examples of how existing institutions address similar requirements:</p> <p>The relationship between the GEF governing structure and the conventions that it serves is outlined in the GEF Instrument, which indicates that it is to be guided by and accountable to the governing bodies of the conventions, which decide on policies, programme priorities and eligibility criteria for the purposes of each convention.</p> <p>GEF is, however, legally and practically speaking, functionally autonomous from the conventions that it serves, the terms of the various memorandums of understanding between the conferences of the parties to those conventions and the GEF Council notwithstanding. Consequently, the governing body of the mercury instrument would not exercise direct control over the entity that operated its financial mechanism. Each GEF replenishment is informed, in part, by an overall performance study prepared by the GEF Evaluation Office, to determine the extent to which GEF is achieving its objectives and to identify potential improvements. The GEF secretariat has comprehensive expertise within its focal area divisions and clusters, and provides opportunities for synergies across the focal areas.</p> <p>The cost of administering a funding mechanism such as GEF may be lower than the cost of administering a fund similar to the Multilateral Fund, but not dramatically so. The budgeted cost of administering GEF for the four years of its fourth replenishment period was about 2.97 per cent of the \$3.13 billion replenishment amount.</p> <p>The Board of the Adaptation Fund, which is the Fund's operating entity and is responsible for its supervision and management, comprises 16 members and 16 alternate members with appropriate technical, adaptation and policy expertise representing relevant country groups. Members are nominated by their constituencies for two-year terms and are each eligible for a second term. Two additional seats have been given to country groups recognized as being particularly vulnerable to the adverse effects of climate change, the least developed-country Parties and the small island developing States. While this composition results in an overall majority of developing countries, decision-making by consensus is a core practice of the Board and ensures in-depth</p>	<p>Examples:</p> <p>Within the Quick Start Programme, the governing structure comprises the Executive Board and the Trust Fund Implementation committee, both answerable to its governing body, the International Conference on Chemicals Management.</p> <p>The Executive Board consists of two government representatives of each of the United Nations regions and all the bilateral and multilateral donors and other contributors to the Programme. The Trust Fund Implementation Committee consists of representatives of participating organizations of the Inter-Organization Programme for the Sound Management of Chemicals, and the United Nations Development Programme.</p> <p>The cost of administering the Quick Start Programme has been relatively low, with a very simple infrastructure of just two staff to manage the process.</p>	

² These figures result from, first, totalling the budgets that were approved for each year for each of the two replenishment periods and, second, dividing the sum of those budgets by the amount of the replenishments to which they relate. The fifth Multilateral Fund replenishment amounted to \$470.4 million for the triennium 2006–2008. The budgeted costs for administering the Fund and its Executive Committee during that triennium totalled \$16.1 million. Thus, the budgeted administrative costs were equivalent to about 3.43 per cent of the replenishment amount. The fourth GEF replenishment was \$3.13 billion to fund operations for the four-year period from July 2006 to June 2010. The GEF budgets for the fiscal years 2006, 2007, 2008, and 2009 (which included funding for the secretariat, Scientific and Technical Advisory Panel, the GEF Trustee, the GEF Evaluation Office and various special initiatives) totalled \$92.9 million, which was about 2.97 per cent of the replenishment.

Criteria	General-purpose long-term fund to support implementation of the mercury instrument	Short-term fund to support initial enabling activities	Special funding arrangement to support larger-scale projects
	<p>consideration of matters under discussion.</p> <p>A dedicated fund modelled on the Multilateral Fund might be operated under the direct authority of and be ultimately accountable to the Conference of the Parties of the mercury instrument.</p> <p>While the Multilateral Fund is managed by the Executive Committee, the Committee operates under the direct supervision of the Meeting of the Parties, which sets its terms of reference and each year selects its members (who are drawn equally from among the parties operating under paragraph 1 of Article 5 of the Protocol and those not so operating). Executive Committee meetings are usually held in conjunction with other meetings related to the Protocol. The Committee's double-majority voting arrangement, required under Article 10 of the Protocol, ensures that neither donors nor recipients dominate the Fund's operations, which may give recipients a greater role in decision-making. In practice, the Committee has always made its decisions by consensus, and the existence of the double-majority voting rule may well influence its ability to do so.</p> <p>The cost of administering a freestanding fund is difficult to estimate at this stage, but the budgeted cost of administering the Multilateral Fund for the three years of its fifth replenishment period was about 3.43 per cent of the \$470.4 million replenishment amount.²</p> <p>Focusing on project and financial management and monitoring for a single instrument may encourage the development of comprehensive expertise within the funding institution. In the case of the Fund, for example, its expertise, together with its relatively non-bureaucratic structure and the decision-making practices of the Executive Committee, have resulted in an efficient and timely process for project development and approval.</p>		

Annex II

Some considerations for the possible categories and magnitude of funding needed in relation to possible obligations under the new mercury instrument

1. It may be useful for the committee to review the various activities that a financial mechanism would be required to support and to discuss the various factors that might influence the magnitude and type of funding required.
2. As negotiations on the future mercury instrument are only just approaching the midway point, it is impossible to know definitively what obligations will be imposed by the instrument or what the corresponding requirements for financial and technical assistance will be. The table below provides some initial indications, based on the possible requirements for assistance discussed in section II B. These indications are of course tentative, and are offered without prejudice to the committee's final conclusions. At this stage, it is impossible to calculate the exact amount of funding needed for the activities that parties will carry out in their efforts to implement the new mercury instrument. The table therefore provides three estimates of the rough magnitude of funding that might be needed, described in the table as "Low", "Moderate" or "High", which indicate the relative difference in the costs of the various activities. The estimate is also dependent upon whether the fund would be limited to financing measures on mercury or would cover measures applicable to broader issues.
3. A detailed analysis of the potential costs and benefits associated with each of the provisions listed in paragraph 27 of Governing Council decision 25/5 is available to the committee in document UNEP(DTIE)/Hg/INC.1/19. Some estimates of costs and funding needs have been revised since that document was produced, based on the continuing development of available technologies and approaches to reducing mercury uses and releases.
4. The table below comprises three sections as follows: Section (a) - Activities to be supported by a general purpose long-term mercury fund; Section (b) - Initial enabling activities; and Section (c) - Larger-scale projects for a small number of Parties.

Section (a) -Activities to be supported by a general-purpose long-term mercury fund

Function	Support needed for	Magnitude of need	Magnitude of funding
(i) Reducing the global mercury supply through the environmentally sound storage of elemental mercury;	<p>Environmentally sound permanent/long-term storage of elemental mercury</p> <ul style="list-style-type: none"> • Establishing temporary/interim/new storage facilities, possibly at national and/or regional/sub-regional levels. For most Parties, these facilities would be small. • Enhancing existing storage facilities. 	<p>From data collected through activities of the mercury supply and storage partnership area, it is estimated that the total worldwide mercury supply will exceed demand, between 2010 and 2050, by between 28,000 and 46,000 tons, or an average of between 700 and 1,150 tons per year. Provision will need to be made for this excess to be removed from the market and placed in storage. Temporary or interim storage might be required at the national level prior to transport for final storage or disposal.</p> <p>Most Parties would need to store only small quantities of mercury, and costs could be reduced by arranging temporary storage at existing hazardous waste facilities or at the mining and industrial facilities responsible for generating mercury releases. Regional and subregional storage facilities may be envisaged as a cost-effective way of ensuring sufficient storage capacity.</p>	<p>Low: To establish or enhance existing hazardous waste facilities for temporary storage at the national level.</p> <p>High: For regional and subregional storage, unless existing facilities can be used.</p> <p>Various stabilization technologies are being developed, which may make it easier, safer and less costly to manage, transport, store and dispose of excess mercury, although such stabilization may increase the volume of material to be stored.</p>

Section (a) -Activities to be supported by a general-purpose long-term mercury fund

Function	Support needed for	Magnitude of need	Magnitude of funding
(ii) Phasing out of mercury-added products;	<p>Reducing the availability and use of mercury-added products</p> <ul style="list-style-type: none"> Phasing out facilities that manufacture mercury-added products (for example, in health-care products such as measuring devices) and reducing mercury levels in such products (for example, compact fluorescent light bulbs or batteries). Reducing the level of mercury in batteries or moving to mercury-free alternatives. Moving towards mercury-free alternatives for measuring devices. 	<p>Obligations related to phasing out the use of mercury-added products would be likely to concern the majority of Parties and might be one of the more important areas of implementation. Obligations in relation to phasing out facilities that manufacture mercury-added products would be likely to concern a limited number of Parties (see below).</p> <p>Data collected so far indicate that only 26 countries (11 in Asia and the Pacific, 9 in Europe, 1 in Central and Eastern Europe, 2 in North America, 2 in Latin America and 1 in Africa) are manufacturers of mercury-added products. Of these, 11 are developing countries or countries with economies in transition (7 in Asia and the Pacific, 1 in Central and Eastern Europe, 2 in Latin America and 1 in Africa). The total number of manufacturers in these countries varies, with most having between 1 and 10 manufacturers of a specific type of product, while in a small number of countries the figure is between 1 and 30. The data indicate that the number of manufacturing facilities worldwide that may need support for conversion is limited.</p> <p>Non-mercury alternatives exist for most batteries, including the button cell type. Limited information is available on the extent to which batteries containing mercury are used, although they are probably used in virtually all Parties. Market forces could probably drive the transition to non-mercury batteries, with limited assistance required. Countries might require some assistance with waste management activities to ensure environmentally sound management of waste batteries.</p> <p>Mercury-free alternatives exist for virtually all devices. Experience from pilot projects in all regions has shown that the health sector could move towards such alternatives at a limited cost. Some mercury-containing devices might need to be retained for calibration purposes. In order to ensure the accuracy of devices a certification scheme might be needed, but the incremental cost would be limited.</p> <p>In a number of countries, assistance programmes have already been implemented successfully. Many Parties would probably need to implement programmes to support transition; the extent of funding required, however, would be linked to the level of ambition in relation to the speed of transition. Market forces would be able to drive a transition over a longer time frame. There could be a continuing waste management issue in some Parties.</p>	<p>A number of producers of mercury-added products also produce non-mercury alternatives. In such cases, the incremental cost of conversion to non-mercury manufacture would be limited.</p> <p>There are also existing market drivers that are supporting conversion to the production of non-mercury-based products, for example within the health sector. As the use of non-mercury products increases it can also be expected that the price differential between mercury and mercury-free products will disappear.</p> <p>Low: Some manufacturers already produce both mercury-containing and mercury-free batteries. Full mercury-free production could represent a market opportunity.</p> <p>Low: Pilot projects have shown that it is feasible to adapt the health-care systems in developing countries. Mercury-containing devices would probably be replaced with mercury-free alternatives of similar cost as part of routine investment in equipment. Appropriate waste management would be required.</p>

Section (a) -Activities to be supported by a general-purpose long-term mercury fund

Function	Support needed for	Magnitude of need	Magnitude of funding
	<ul style="list-style-type: none"> • Phasing out of mercury-based electric switches and relays. • Reducing the level of mercury in lamps and moving towards energy-efficient mercury-free alternatives. • Reducing releases of mercury from dental amalgam by installing mercury traps and separators in dental clinics and phasing-down amalgam use. 	<p>The use of mercury-based electric switches and relays is being phased out among manufacturers. This is expected to reduce gradually their use in construction, particularly as the cost of alternatives should decrease. It is unlikely that existing electric switches or relays in working condition will be replaced in established structures. There might be a continuing waste management issue in some Parties.</p> <p>Virtually all Parties are likely to use mercury-containing lamps. The transition to alternatives is likely to be market driven and, given the disposable nature of the product, will occur over a period determined by the life of the product. There may be a continuing waste management issue in some Parties.</p> <p>Obligations in relation to dental amalgam would be likely to concern the majority of Parties. A phase-down of amalgam use as part of an overall long-term strategy is envisaged. Installation of mercury traps and separators in dental clinics would significantly reduce mercury releases. Proper coding or trade labelling will ensure accountability and prevent diversion.</p>	<p>Low: Most Parties will not need to address this use specifically and no incremental cost would be involved.</p> <p>Low: Costs will be low owing to the progressive reduction of mercury content already under way as a result of industry investment to meet regulatory controls. Some manufacturers are producing mercury-free alternatives that are only slightly more expensive than mercury-containing lamps.</p> <p>Low: For the introduction of waste mercury traps and waste collection systems and of coding and trade labelling of encapsulated dental amalgam to prevent diversion.</p>
(iii) Reducing intentional emissions of mercury from industrial processes;	<p>Chlor-alkali production</p> <ul style="list-style-type: none"> • Transition away from the use of mercury-cell technology. • Keeping excess mercury from decommissioned plants off the market. 	<p>Obligations in relation to chlor-alkali production would be likely to concern a small number of Parties, as the number of chlor-alkali plants using mercury-cell technology worldwide is limited. Many of these plants are already considering or are committed to converting to more efficient non-mercury production technologies, funded through normal sources for commercial financing, in order to meet growing demand for their products. After accounting for the voluntary pledge by the European Union to phase out all mercury-cell chlor-alkali facilities by 2020, the proposed closure or conversion dates for several facilities in the United States, Indian conversion plans and other planned closures or conversions, as documented in the chlor-alkali partnership area's inventory, there remain 55 mercury-cell facilities in 26 countries that are without specific closure or conversion plans. Of these, 24 are located in developing countries or countries with economies in transition. The 55 remaining plants have an aggregate chlorine production capacity of about 1.7 million tons per year.</p>	<p>Low-Moderate: Available non-mercury based cell technologies are more cost-effective and conversion is driven by economic and market considerations.</p> <p>Incremental funding support might be limited and only needed for those plants lacking sufficient market incentives or where phase-out is being undertaken in accordance with business capital investment plans.</p>

Section (a) -Activities to be supported by a general-purpose long-term mercury fund

Function	Support needed for	Magnitude of need	Magnitude of funding
	<p>Vinyl chloride monomer (VCM) production</p> <ul style="list-style-type: none"> Transition away from mercury catalysts or production processes requiring mercury catalysts. <p>Artisanal and small-scale gold mining (ASGM)</p> <ul style="list-style-type: none"> Reducing use and release of mercury through improved production techniques. Enabling activities, such as the development of national action plans to address ASGM, a review of current legislation, capacity to support training at the regional and local levels, etc. 	<p>Obligations in relation to VCM production would be likely to concern a small number of Parties, as the VCM industrial production process that requires a mercury catalyst is thought to be only used in two countries. This industry is the leading consumer of mercury in China. In 2008, there were 89 PVC manufacturers in China using this technology. It is expected that the growth of the industry in China will continue to be based on this technology because of the availability and low cost of the coal feedstock. It is also believed that this technology is used in Russia; with an estimated four facilities using this technology in 2004.</p> <p>Research is underway to develop alternative mercury-free catalysts that may be used in existing facilities. These are likely to become commercially available in the short-medium term. Meanwhile, efforts to promote the use of low mercury catalysts are also being encouraged, where appropriate.</p> <p>While these are considered pre-commercial, further efforts are needed to improve mercury management within existing processes.</p> <p>Artisanal and small-scale gold mining (ASGM) remains the largest demand sector for mercury globally. Best estimates put global mercury use in the sector in the range of 1300 tonnes in 2011. Virtually all of the mercury used is released to the environment. Conservative estimates suggest that ASGM accounts for 13 per cent of the world's gold production per annum and directly involves an estimated 10-15 million miners globally. From this, the current value of annual artisanal and small-scale gold production in 2010 and 2011 is around \$10.5 billion. With the price of gold rising to over \$1,700 per ounce in 2011, a gold rush involving a growing number of poverty-driven miners is currently under way.</p> <p>It is believed that ASGM is practiced in almost 70 countries around the world, of which 14 are in Asia and the Pacific, 17 in Latin America and the Caribbean and 32 in Africa.</p> <p>Artisanal and small-scale gold mining is a complex global development issue that presents challenges and opportunities in many countries. Technical options for reducing mercury use and releases exist, including some promising non-mercury technologies. Lack of access to formal credit markets as a result of the informal nature of the sector, however, is a barrier to change.</p> <p>Formalization of the sector is therefore important to allow for intervention. The specific requirements of formalization will vary from situation to situation, but in all cases will require stakeholder engagement, financial and technical support, access to markets, capacity building and training.</p>	<p>Low-Moderate: To introduce cleaner production processes within the industry and for catalyst providers until alternative catalysts are commercially viable.</p> <p>Low-Moderate: To introduce alternative catalysts, where these are commercially available, into compatible replacement processes.</p> <p>Moderate-High: Assistance projects are likely to be complex and long-term. There is potential for co-financing with other areas, such as health and social development.</p> <p>Market-based initiatives, such as the promotion of products through fair trade schemes, may serve to promote efforts to reduce mercury use and release.</p> <p>Improved management of the sector at the national level could facilitate access to microcredits for investment, thereby offsetting incremental costs.</p> <p>Rising mercury costs, arising in part from reduced supply, is likely to work in favour of efforts to cut mercury releases to the environment.</p> <p>Low-Moderate: For enabling activities to support the development of national action plans to address ASGM, to carry out a review of current legislation, to build capacity to support training at regional and local levels, etc.</p>

Section (a) -Activities to be supported by a general-purpose long-term mercury fund

Function	Support needed for	Magnitude of need	Magnitude of funding
(iv) Reducing unintentional emissions of mercury from power generation and industrial processes;	<p>Reducing emissions of mercury to the atmosphere</p> <p>Large-scale energy generation from coal</p> <ul style="list-style-type: none"> Reducing mercury emissions through improved fuel quality and enhanced pollution control. 	<p>Emissions from power generation and industrial processes are a principal reason for global concern about the transboundary movement of mercury and are thus an important target for the treaty. Energy generation and a number of other high-temperature industrial processes, such as non-ferrous metal smelting, some large-scale gold production processes and cement production, produce important levels of unintentional mercury emissions to air. Only a limited number of Parties emit significant levels of mercury from this sector, however, (see discussion below) and individual plants may account for a significant proportion of total national emissions for such Parties.</p> <p>Reducing mercury emissions may require a variety of approaches, such as conversion to alternative energy sources, optimizing energy production, cleaner fuels and end-of-pipe pollution measures. Policy choices on levels of ambition and the extent of obligations for individual parties will affect the magnitude of need within this sector.</p> <p>Coal combustion in power plants and industrial boilers was estimated to contribute 26 per cent of the total global mercury emissions to air in 2005.*/ The three largest emitters represent 63 per cent of the total global emissions. Only ten countries or regional economic integration organizations (of which six are developing countries or countries with economies in transition) represent 91.5 per cent of the total mercury emissions from fossil fuel combustion. (See also section (c) below).</p> <p>Achieving mercury reductions will require an integrated package to control air emissions and hazardous waste management, owing to the large amounts of mercury-contaminated hazardous waste that are generated (in fly ash, filter waste, furnace ashes, etc.)</p> <p>There is also the potential for co-benefits and co-financing through other funding mechanisms such as those available to support measures to combat persistent organic pollutants and climate change.</p> <p>Depending on the policy choices made, the majority of Parties that have lower emission levels from energy production may be able to achieve mercury emission reductions over time through the application of best available techniques and best environmental practices for new and existing facilities.</p>	<p>In general, costs in this category are likely to be high, but opportunities to reduce them are likely to be available where mercury reduction efforts are incorporated into market-driven capital investment plans or occur co-benefits from other air pollution control efforts.</p> <p>Low: Where considerable reductions in mercury emissions can be made through co-benefits, including through optimization of existing air pollution control systems.</p> <p>Furthermore, significant industry investments to improve power generation efficiency to meet increasing energy demands will reduce mercury emissions, while re-engineering is likely to incorporate advanced air pollution controls, thus reducing incremental costs for mercury controls.</p> <p>High: Where coal washing or mercury-specific controls are required and need to be retrofitted to existing facilities.</p> <p>Large amounts of bottom ash, fly ash and filter residues arising from coal-fired power generation are considered hazardous waste and need to be managed. It is unlikely that additional costs will arise from enhanced mercury content resulting from improved mercury capture.</p>

Section (a) -Activities to be supported by a general-purpose long-term mercury fund

Function	Support needed for	Magnitude of need	Magnitude of funding
	<p>Residential heating and other combustion</p> <p>Non-ferrous metal mining and smelting and large-scale gold production</p> <ul style="list-style-type: none"> • Reducing mercury emissions through improved pollution control. <p>Cement production</p> <ul style="list-style-type: none"> • Reducing mercury emissions through the recycling of fugitive gases and/or improved pollution control. 	<p>In some countries, large amounts of coal (often of poor quality) are used in boilers that serve a number of residential units or may be used for heating and cooking in individual households. Suitable options for control of mercury emissions from these sources are not readily available. Fuel switching or conversion to other sources of energy for cooking and heating could be considered, depending on local conditions and availability of resources.</p> <p>Mercury typically occurs in trace amounts in the sulphide ores of a range of non-ferrous metals such as zinc, lead, copper, gold and manganese. It is unlikely that mineral and ore processing can significantly reduce this content and efforts to reduce emissions will likely concentrate on capturing fugitive emission from smelting.</p> <p>Based on 2005 estimates, large-scale operations in the non-ferrous metals industry (excluding gold) contribute about 7 per cent of total global emissions of mercury to the atmosphere from all activities, with almost 70 per cent of this amount originating in Asia. Large-scale gold production contributes about 6 per cent of total global emissions to the atmosphere from all activities.*/ Large-scale mining and smelting facilities are located in a relatively limited number of Parties, and it may be possible to include requirements for control of mercury emissions along with other regulations applicable to such facilities. Needs will vary in respect of the various metals production activities. For example, data for 2009 from the United States Geological Survey 2009 Minerals Yearbook indicate that only 13 countries (including eight developing countries or countries with economies in transition) of the 48 that mine zinc individually produce more than 1 per cent of total world production, while only 20 countries (including 17 developing countries or countries with economies in transition) of the 110 that mine gold do so.</p> <p>Mercury may occur in trace amounts in the limestone and other raw materials used in cement production. It is unlikely that mineral and ore processing can significantly reduce this content and efforts to cut emissions are likely to concentrate on recirculation of dust through the kiln and the capture of mercury in the product.</p> <p>Based on 2005 estimates, about 10 per cent of the total global emissions of mercury to the atmosphere originate from the manufacture of cement, with around 74 per cent of this amount emitted in Asia.*/</p> <p>Most Parties are likely to have some cement production. However, data for 2009 from the U.S. Geological Survey 2009 Minerals Yearbook indicate that only 17 countries (including 12 developing countries or countries with economies in transition) individually produce more than 1 per cent of total world production.</p>	<p>High: Addressing mercury emissions from residential use of coal can be expected to be complex and dependent, in part, on the availability of alternative fuels.</p> <p>Opportunities exist for co-benefits in relation to efforts to improve urban and indoor air quality</p> <p>Low-Moderate: Where mercury reduction efforts are incorporated into market-based industry investment to improve production efficiency and product recovery.</p> <p>Provision needs to be made for the continuing operational costs of mercury capture processes and for the storage and management of captured mercury as waste.</p> <p>Low: Where mercury reduction efforts are incorporated into market-based industry investment to improve production efficiency.</p>

Section (a) -Activities to be supported by a general-purpose long-term mercury fund

Function	Support needed for	Magnitude of need	Magnitude of funding
(v) Reducing unintentional emissions from mercury waste and contaminated sites;	<p>Mercury-containing waste</p> <ul style="list-style-type: none"> Reducing releases from waste facilities used for the disposal of mercury-containing wastes. Identifying and cleaning up sites contaminated by mercury. <p>Contaminated sites:</p> <ul style="list-style-type: none"> Reducing releases, including re-emission. 	<p>It is anticipated that all Parties will require sound waste management practices, not only for mercury, but for all other hazardous waste managed within their territory. Mercury-containing waste, not appropriate for storage, would need to be collected and disposed of in a hazardous waste facility, in such a way as to ensure that mercury was not released.</p> <p>In some countries, the volumes of mercury-containing waste to be disposed of might warrant the establishment of facilities to separate the waste into elemental mercury for storage and a smaller volume of contaminated elements.</p> <p>Industrial facilities and manufacturing sites where mercury has been used are likely to be contaminated.</p> <p>Such sites, and other sites identified as contaminated, would need to be assessed to establish risk-based plans for their environmentally sound remediation and management.</p>	<p>Low-moderate: The incremental cost for disposal of mercury-containing waste would be limited where such facilities already exist.</p> <p>The establishment of regional facilities would be an additional cost.</p> <p>Low: For the identification and assessment of contaminated sites.</p> <p>Moderate-High: For the remediation of sites, depending upon their size and complexity and whether they could be contained or capped or would need to be treated fully.</p> <p>Incremental costs, related to the clean-up of contaminated sites, would be dependent upon whether ownership of or responsibility for the sites could be determined. They may be lower if their owners put in place management plans for the sites at an early stage.</p>
(vi) Building capacity and raising awareness;	<ul style="list-style-type: none"> Carrying out research on adverse impacts; environmental transport, trade and availability of mercury-free alternatives; communication of information; health advocacy; and, education and monitoring of vulnerable populations. 	<p>Parties' needs will differ, as use and release of mercury and the resulting adverse impacts vary from country to country. The initial enabling activities, including development of national inventories to identify and quantify mercury uses and releases and follow-on analysis of national mercury pollution problems, such as national profiles and initial action plans, will provide a better understanding of the magnitude of need.</p>	<p>Low: Costs could be reduced through networking and collaboration with regional structures and by cost sharing with other chemicals and waste related multilateral environmental agreements.</p>
(vii) Measuring effectiveness;	<ul style="list-style-type: none"> Establishing a monitoring programme to measure levels in humans and/or the environment. 	<p>The potential cost of a global monitoring programme would be dependent upon the level of ambition set by Parties with regard to scope and coverage, types of media to be measured, etc. Comprehensive monitoring programmes already exist in a number of countries and regions, which might provide data and input for such a programme under the mercury instrument.</p>	<p>Low: The costs of establishing a global monitoring programme could be reduced through collaboration with existing networks, and by cost sharing in conjunction with similar processes for other chemicals and waste related multilateral environmental agreements.</p>
(viii) Developing institutional infrastructure.	<ul style="list-style-type: none"> Facilitating national coordination; Raising public awareness; Regulating international trade; Creating information exchange 	<p>Need may be limited in a number of areas, as Parties might have already established the necessary institutional infrastructures to implement the other chemicals and waste related multilateral agreements, and may be able to make use of them to meet their obligations under the mercury instrument.</p>	<p>Low: Costs could be reduced through networking and collaboration with regional structures and by cost sharing with other chemicals and waste related multilateral environmental agreements.</p>

Section (a) -Activities to be supported by a general-purpose long-term mercury fund

Function	Support needed for	Magnitude of need	Magnitude of funding
	<p>systems;</p> <ul style="list-style-type: none"> Carrying out national reporting and other tasks, possibly including appointing a national coordinating officer along the lines of national ozone officers. 		

Section (b) - Initial enabling activities

Function	Support needed for	Magnitude of need	Magnitude of funding
Enabling activities	<p>(i) Preparing inventories to identify and quantify national mercury uses and releases;</p> <p>(ii) Carrying out follow-on analyses of national mercury pollution problems and the establishment of national profiles and initial action plans;</p> <p>(iii) Preparing national legislative and regulatory measures to give effect to the instrument upon entry into force for the Party concerned;</p> <p>(iv) Establishing national institutional arrangements to coordinate and spearhead national implementation of the mercury instrument, potentially involving integration with existing institutional arrangements for the implementation of other relevant instruments.</p>	<p>Not all Parties will have the same needs for implementation support for enabling activities, as the use and release of mercury varies from country to country.</p> <p>Need may be limited in a number of areas, as Parties might have already established national chemicals management institutional infrastructures to implement other chemicals and waste related multilateral environmental agreements, and may be able to make use of them in working to meet their obligations under the mercury instrument.</p> <p>Most Parties will need to put in place specific national legislative and regulatory measures to support ratification of the instrument and its implementation upon entry into force. There may be a general need for rapid support for developing countries and countries with economies in transition for small-scale projects in the interim period before ratification and in the period soon after entry into force in preparation for more comprehensive implementation work at a later stage.</p>	<p>Low: Costs could be reduced through networking and collaboration with regional structures and by cost sharing with other chemicals and waste related multilateral environmental agreements. The use of established tools for inventory work may also reduce costs.</p>

Section (c) - Larger-scale projects for a small number of Parties

Function	Support needed for	Magnitude of need	Magnitude of funding
(i) Introduction or enhancement of control procedures in power generation facilities in order to reduce mercury emissions;	<p>Large scale-energy generation from coal</p> <ul style="list-style-type: none"> Reducing mercury emissions through improved fuel quality and/or enhanced pollution control. 	<p>As indicated in subsection (iv) of section (a) above, coal combustion in power plants and industrial boilers is a substantial source of mercury emissions to the atmosphere. Only a limited number of countries have significant emissions, however. Ten countries and regional economic integration organizations (of which six are developing countries or countries with economies in transition) represent 91.5 per cent of the total mercury emissions from fossil fuel combustion. The policy choices of the committee on levels of ambition and the extent of obligations for individual Parties will affect the magnitude of need in this sector.</p> <p>Reducing mercury emissions by these countries might require an integrated package of measures for the control of air emissions and hazardous waste management owing to the large amounts of mercury contaminated hazardous waste that would be generated (in fly ash, filter waste, furnace ashes, etc.)</p> <p>Depending on the policy choices made, the majority of Parties that have lower emission levels from energy production, might be able to achieve mercury emission reductions over time through the application of best available techniques and best environmental practices for new and existing facilities.</p>	<p>High: The magnitude of funding needed to obtain emissions reductions at individual plants will vary depending on technical considerations specific to each plant. The large production capacity and number of plants in this limited number of countries, however, suggest that the total funding needed may be high.</p> <p>Taking into account the potential commercial returns generated by the modernization of the utilities and industries involved, support might involve a range of elements, including outright grants, subsidies, concessionary loans and public-private partnerships. Consideration might be given to the potential for co-benefits and synergies with projects being undertaken to implement other international agreements such as the United Nations Framework Convention on Climate Change, the Montreal Protocol and the Stockholm Convention.</p>
(ii) Conversion of larger-scale manufacturing facilities to replace mercury-based production processes with alternatives that do not use mercury;	<p>VCM production</p> <ul style="list-style-type: none"> Moving away from mercury catalysts or production processes requiring mercury catalysts. <p>Chlor-alkali production</p> <ul style="list-style-type: none"> Moving away from the use mercury-cell technology. 	<p>Research is under way to develop alternative mercury-free catalysts that can be used in existing facilities. These are likely to become commercially available in the short or medium term. Meanwhile, efforts to promote the use of low-mercury catalysts are being encouraged where appropriate. Until such time as mercury-free and low-mercury catalysts are commercially viable, further efforts are needed to improve mercury management in existing processes.</p> <p>As indicated in subsection (iii) of section (a) above, the VCM production process that requires a mercury catalyst is currently only used in two countries.</p> <p>As indicated in subsection (iii) of section (a) above, the number of remaining chlor-alkali plants using mercury-cell technology without specific closure or conversion plans is 55, located in 26 countries, of which 24 are developing countries or countries with economies in transition. Of these, only a very small number of Parties may be in the need for larger scale conversion projects.</p>	<p>The magnitude of funding needed to switch from mercury catalysts and production processes that require mercury catalysts, once alternative catalysts are commercially viable and available in compatible replacement processes, may be expected to be moderate. Additional funding, however, might facilitate accelerated phase-out should it be seen as a priority.</p> <p>The magnitude of funding needed to find alternatives to mercury-cell technology will vary, depending on the individual technical considerations at each plant, but may be expected to be moderate, as available non-mercury based cell technologies are more cost-effective and conversion is driven by economic and market considerations. Due to the potential long-term economic benefits of conversion, this could be an area that would benefit from the provision of concessionary loans.</p>

Section (c) - Larger-scale projects for a small number of Parties			
Function	Support needed for	Magnitude of need	Magnitude of funding
(iii) Introduction or enhancement of control procedures in larger-scale mining operations to reduce mercury emissions.	<p>Non-ferrous metals mining and smelting and large-scale gold production</p> <ul style="list-style-type: none"> Reducing mercury emissions through improved pollution control. 	<p>Mercury typically occurs in trace amounts in the sulphide ores of a range of non-ferrous metals such as zinc, lead, copper, gold and manganese. It is unlikely that improvements in mineral and ore processing could significantly reduce this content and efforts to reduce emissions will likely concentrate on capturing fugitive emission from smelting.</p> <p>Based on 2005 estimates, large-scale operations in the non-ferrous metals industry (excluding gold) contribute about 7 per cent of total global emissions of mercury to the atmosphere from all activities, with almost 70 per cent of this amount originating in Asia. Large-scale gold production contributes about 6 per cent of total global emissions to the atmosphere from all activities.*/</p> <p>Large-scale mining and smelting facilities are located in a relatively limited number of Parties, and it may be possible to include requirements for controls of mercury emissions along with other regulations applicable to such facilities. It is likely that only a very small number of Parties may need larger-scale conversion projects.</p>	<p>The magnitude of funding needed to achieve emission reductions at individual sites will vary depending on technical considerations at each site. Costs may be moderate where mercury reduction efforts are incorporated into investments to improve production efficiency. Recurring costs related to mercury capture processes and the storage and management of captured mercury as waste might be limited given the co-benefits of reducing other pollutants and other regular hazardous waste management costs.</p> <p>Additional funding, however, might facilitate accelerated emission reductions, should it be seen as a priority.</p>

*/ Data taken from document UNEP(DTIE)/Hg/INC.2/4 – Study on mercury sources and emissions and analysis of the cost and effectiveness of control measures.

Annex III

Documents relevant to possible provisions of the mercury instrument on capacity-building and technical and financial assistance

1. The secretariat has prepared a number of documents to support the committee's deliberations on capacity-building and technical and financial assistance. In addition to the present note, the committee has before it the following notes prepared by the secretariat for the committee's first and second sessions:
 - (a) Analysis of possible funding sources and what they might cover, including an analysis of the role of the private sector (UNEP(DTIE)/Hg/INC.2/14);
 - (b) Options for predictable and efficient financial assistance arrangements (UNEP(DTIE)/Hg/INC.1/8);
 - (c) Options for delivery of technical assistance and capacity-building: examples from multilateral environmental agreements and other organizations (UNEP(DTIE)/Hg/INC.1/9);
 - (d) Facilitating sustainable technology transfer and support for global mercury control actions: experience within existing legally binding and voluntary arrangements (UNEP(DTIE)/Hg/INC.1/10).
2. Moreover, the committee may refer to the report on financial considerations and possible funding modalities for a legally binding instrument or voluntary arrangement on mercury that was presented to the Ad Hoc Open-ended Working Group on Mercury at its second meeting, which was held in Nairobi from 6 to 10 October 2008 (UNEP(DTIE)/Hg/OEWG.2/3). The report discusses possible modalities for allowing the Global Environment Facility (GEF) to provide financial resources and elements of the Multilateral Fund for the Implementation of the Montreal Protocol that could serve as a model for a mercury financial mechanism.
3. Also of relevance to the issue of funding is a general qualitative assessment of the potential costs and benefits associated with the implementation of actions to reduce mercury emissions, which was first presented to the Working Group at its second meeting (UNEP(DTIE)/Hg/OEWG.2/5/Add.1). An updated version of the assessment was presented to the committee at its first session in a report prepared by the secretariat (UNEP(DTIE)/Hg/INC.1/19, annex). Additional information supplied by Governments, in response to a request by the secretariat, is summarized in a note by the secretariat on cost-benefit analysis of existing alternatives to mercury-based products, processes and technologies (UNEP(DTIE)/Hg/INC.2/12), which should be read in conjunction with the report set out in the annex to document UNEP(DTIE)/Hg/INC.1/19. The three documents provide a comprehensive analysis of the potential costs and benefits that may arise from the implementation of various mercury control measures.
4. Furthermore, the committee may wish to consider information from a number of recent, comprehensive analyses of possible funding sources for improved chemicals and waste management activities conducted under the auspices of the chemicals and waste conventions and most recently the Strategic Approach. The analyses under the Strategic Approach include a study on financial considerations pertaining to a strategic approach to international chemicals management (SAICM/PREPCOM.3/INF/28) presented to the Preparatory Committee for the Development of a Strategic Approach to International Chemicals Management at its third session, held in Vienna in September 2005, and a note by the secretariat on long-term financing for implementation of the Strategic Approach (SAICM/ICCM.2/12) presented to the International Conference on Chemicals Management at its second session, held in Geneva in May 2009. These studies examine possible funding sources that may be directly relevant to the committee's considerations of financing options for mercury risk reduction measures under the new instrument.