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Preparation of a global legally binding instrument on mercury

Facilitating sustainable technology transfer and support for global mercury control actions: experience within existing legally binding and voluntary arrangements

Note by the secretariat

- 1. At its meeting held in Bangkok from 19 to 23 October 2009, the ad hoc open-ended working group to prepare for the intergovernmental negotiating committee on mercury agreed upon a list of information that the secretariat would provide to the committee at its first session to facilitate the committee's work. Among other things, the secretariat was requested to provide an update of a report prepared by the secretariat for the second meeting of the ad hoc open-ended working group on mercury, held in Nairobi from 6 to 10 October 2008, on how experience within existing legally binding and voluntary arrangements might bear on how sustainable technology transfer and support could be facilitated for global mercury control actions (UNEP(DTIE)/Hg/OEWG.2/10). The present note responds to that request. It sets out information on technology transfer and support activities under various existing instruments, including several programmes established under voluntary mechanisms, updated to the end of February 2010.
- 2. The present note was prepared bearing in mind the definition of the term "technology transfer" in the *Glossary of Terms for Negotiators of Multilateral Environmental Agreements*, published by the United Nations Environment Programme (UNEP) in 2007. That definition is as follows: "Transmission of know-how, equipment and products to governments, organizations and other stakeholders. Usually also implies adaptation for use in a specific cultural, social, economic and environmental context."

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

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3. It should be noted that only a few instruments or programmes described herein have specific provisions relating to technology transfer as defined in the preceding paragraph. A number, however, touch upon relevant issues directly or indirectly as part of their technical assistance delivery. To avoid duplication, the delivery of technical assistance and capacity-building is not treated here; it is discussed in document UNEP(DTIE)/Hg/INC.1/9, which presents examples of mechanisms for the delivery of technical assistance and capacity-building from various multilateral environmental agreements and organizations. The present note thus focuses on technology transfer and support activities, although there are often no sharp distinctions between these activities and technical assistance.

A. Bali Strategic Plan for Technology Support and Capacity-building

- 4. The Bali Strategic Plan for Technology Support and Capacity-building, adopted by the UNEP Governing Council/Global Ministerial Environment Forum at its twenty-third session, on 25 February 2005, sent a message from Governments that they wanted UNEP to be a more responsive and accessible partner and to deliver its support in a more coordinated way. UNEP has continued to accord high priority to the implementation of the Bali Strategic Plan, and submits twice-yearly reports on its progress in doing so to the Committee of Permanent Representatives to UNEP in Nairobi, as part of its programme performance report.
- 5. UNEP has built the implementation of the Bali Strategic Plan into both its programmes of work and its medium-term strategy for 2010–2013. Capacity-building and technology support activities were thus an integral part of the 2008–2009 programme of work. A review of implementation in the first quarter of the biennium 2008–2009 showed that over 40 per cent of UNEP activities across the subprogrammes contributed directly to Bali Strategic Plan implementation. Almost 75 per cent of those activities were technical assistance and capacity-building interventions, which were implemented with the support of UNEP regional offices to strengthen the capacities of developing countries and countries with economies in transition.
- 6. The medium-term strategy for the period 2010–2013 places strong and renewed emphasis on UNEP significantly enhancing its capacity to deliver on the Bali Strategic Plan; it states that first and foremost UNEP will ensure that capacity-building and technology support run through the implementation of all priority areas and constitute an integral part of the UNEP programmes of work. The new programme of work for 2010–2011 will help UNEP further to realize its vision of implementing technology support and capacity-building activities effectively and efficiently and responding to country needs in a more timely fashion.

B. Basel Convention

7. Paragraph 1 of article 14 of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal states:

The Parties agree that, according to the specific needs of different regions and subregions, regional or sub-regional centres for training and technology transfers regarding the management of hazardous wastes and other wastes and the minimization of their generation should be established. The Parties shall decide on the establishment of appropriate funding mechanisms of a voluntary nature.

- 8. Regional and subregional centres established pursuant to article 14 constitute the main vehicle for facilitating technology transfer and support. Some of their core functions include identifying, developing and strengthening mechanisms for the transfer of technology in the field of environmentally sound management and the minimization of hazardous and other wastes in the regions that they serve; collecting information on new or proven environmentally sound technologies and know-how relating to environmentally sound management and minimization and disseminating it to parties; and encouraging best practices and methodologies for environmentally sound management and minimization through pilot projects.
- 9. The Basel Convention regional and subregional centres are also responsible for the delivery of technical assistance. Further details may be found in document UNEP(DTIE)/Hg/INC.1/9.
- 10. As part of its activities to support knowledge transfer, the Basel Convention has developed an extensive collection of guidelines on the environmentally sound management of hazardous wastes. Topics for which guidelines already exist or are being developed include persistent organic pollutants, metals and plastics, metals and metal compounds, used tyres and mercury. In addition, over the past

years a number of technical activities have been undertaken on subjects such as electrical and electronic wastes, persistent organic pollutant wastes, obsolete stocks of pesticides and mercury-containing and asbestos-containing wastes. Its activities in this area have also included support for the development of national inventories and national action plans for the management of wastes and the development and implementation of regional strategies.

11. Judging from the experience of the Basel Convention, the development of technical guidelines on various aspects of mercury could provide a good means of delivering information on how to manage mercury in an environmentally sound manner. Development of such guidelines could, however, require a significant investment of time.

C. Multilateral Fund for the Implementation of the Montreal Protocol

- 12. The Montreal Protocol on Substances that Deplete the Ozone Layer to the Vienna Convention for the Protection of the Ozone Layer requires parties to the Protocol to phase out the production and consumption of ozone-depleting substances according to an agreed timetable. The Multilateral Fund for the Implementation of the Montreal Protocol helps developing countries to comply with their obligations under this multilateral environmental agreement by providing financial and technical assistance in the form of grants or concessional loans.
- 13. The Multilateral Fund provides financing for activities including the closure of ozone-depleting substance production plants, plant conversion, technical assistance, information dissemination and training and capacity-building aimed at phasing out the use of ozone-depleting substances in a broad range of sectors. The Fund is replenished every three years by the parties not operating under paragraph 1 of article 5 of the Protocol (i.e., broadly speaking the developed country parties). It is managed by an Executive Committee assisted by a secretariat based in Montreal, Canada, which carries out day-to-day operations.
- 14. The work that the Multilateral Fund finances on the ground in developing countries is carried out by four implementing agencies that operate under contractual agreements with the Executive Committee: UNEP, the United Nations Development Programme (UNDP), the United Nations Industrial Development Organization (UNIDO) and the World Bank. The four organizations have different roles:
- (a) The World Bank, which disburses almost half of the total funding provided by the Fund, concentrates on large-scale phase-out and investment projects at the plant and country levels;
- (b) UNDP organizes demonstration and investment projects, technical assistance and feasibility studies;
- (c) UNIDO prepares and appraises investment project proposals and implements phase-out schedules at the plant level;
- (d) UNEP assists with the development of infrastructure necessary for the implementation of investment projects. That includes carrying out institutional strengthening activities (such as the establishment of national ozone units within each country), facilitating regional networks and helping to prepare country programmes, especially for countries that consume low volumes of ozone-depleting substances. UNEP also performs clearing-house functions and produces training materials. In 2002 it initiated its Compliance Assistance Programme, which aims to assist parties to achieve total phase-out, and decentralized most of its resources to the regional level, facilitating direct support to developing countries.
- 15. By its decision II/8, and in accordance with article 10 of the Protocol, the Second Meeting of the Parties to the Protocol decided that parties could make up to 20 per cent of their annual assessed contributions to the Multilateral Fund in the form of direct bilateral support to developing country parties. As at January 2009, 13 contributing parties were engaged in a range of bilateral activities such as training, technical assistance and the introduction of ozone-friendly technologies.
- 16. The achievements of the Multilateral Fund can be measured through the rate of payment of contributions, technology transfer, ozone-depleting-substance phase-out and the behavioural and institutional changes that it has stimulated. Donor countries have held to their commitments to provide funding: more than 90 per cent of pledged contributions have been paid, amounting to \$2.34 billion (of a total of \$2.59 billion pledged) between 1991 and July 2009. By July 2009 the Fund had supported technology transfer and capacity-building through more than 6,000 projects and activities in

147 developing countries. Projects approved through 2007 have already eliminated the consumption of nearly 258,574 ozone-depletion-potential tonnes (ODP-tonnes) of ozone-depleting substances and the production of 195,013 ODP-tonnes.

- 17. National ozone units have been established in 143 developing countries, increasing understanding of how to implement environmental regulations and the capacity and confidence to do so. Virtually all parties to the Protocol have been able to meet their phase-out targets and prospects are good that that rate will hold into the future. That success translates into a reduction in the levels of ozone-depleting substances in the stratosphere.
- 18. The Multilateral Fund has played a pivotal role in demonstrating that international environmental agreements can be highly successful. The idea of funding only what are termed "incremental costs" (i.e., costs that are attributable to efforts to phase out the production and consumption of ozone-depleting substances and that are over and above costs that would have been incurred even in the absence of such efforts) has been very successful and could have widespread implications for other agreements.
- 19. Information on the UNEP Compliance Assistance Programme and national ozone units as mechanisms for delivering technical assistance and capacity-building may be found in document UNEP(DTIE)/Hg/INC.1/9.

D. Partnership for Clean Fuels and Vehicles

20. The Partnership for Clean Fuels and Vehicles, which was launched in 2002 at the World Summit on Sustainable Development and is headquartered at UNEP, assists developing countries to reduce vehicular air pollution through the promotion of lead-free, low-sulphur fuels and cleaner vehicle standards and technologies. The Partnership builds on current trends and efforts in the development of fuel and vehicle technologies, a field in which steady improvements have been introduced and disseminated for decades. The Partnership aims to make available key resources and data on vehicles and fuels around the world. Information currently available on the resources and data page of the Partnership's website includes data on vehicle emission standards, vehicle inspection and maintenance and the environmental performance of vehicles. With regard to fuels, key data is provided on leaded gasoline phase-outs, sulphur phase-downs, fuel specifications and oxygenates and aromatic hydrocarbons.

E. Rotterdam Convention

21. The Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade does not directly address technology transfer and support. Article 16, on technical assistance, says that the parties shall, taking into account in particular the needs of developing countries and countries with economies in transition, cooperate in promoting technical assistance for the development of the infrastructure and the capacity necessary to manage chemicals to enable implementation of the Convention. It also says that parties with more advanced programmes for regulating chemicals should provide technical assistance, including training, to other parties in developing their infrastructure and capacity to manage chemicals throughout their life-cycle. Further details relating to delivery of technical assistance and capacity-building activities under the Convention may be found in document UNEP(DTIE)/Hg/INC.1/9.

F. Stockholm Convention

22. Paragraph 4 of article 12 of the Stockholm Convention on Persistent Organic Pollutants states:

The Parties shall establish, as appropriate, arrangements for the purpose of providing technical assistance and promoting the transfer of technology to developing country Parties and Parties with economies in transition relating to the implementation of this Convention. These arrangements shall include regional and subregional centres for capacity-building and transfer of technology to assist developing country Parties and Parties with economies in transition to fulfil their obligations under this Convention. Further guidance in this regard shall be provided by the Conference of the Parties.

- 23. As called for in paragraph 4 of article 12, the Conference of the Parties of the Stockholm Convention has developed and implemented arrangements establishing regional and subregional centres for capacity-building and transfer of technology. It has also adopted criteria for the delivery of technical assistance and terms of reference for the regional and subregional centres, in decisions SC-1/15 and SC-2/9, respectively. According to those decisions the centres should tailor the technical assistance that they provide to meet parties' specific needs with the aim of enabling them to implement their obligations under the Convention. Further, those needs should be identified by the parties themselves, including in particular through the priorities set out in their national implementation plans. Further details relating to the establishment and functioning of the Stockholm Convention regional and subregional centres may be found in document UNEP(DTIE)/Hg/INC.1/9.
- 24. Like the Conference of the Parties to the Basel Convention, the Conference of the Parties of the Stockholm Convention has also adopted guidelines on best available techniques and provisional guidance on best environmental practices and is continually seeking to improve them as parties gain experience in their application and implementation.

G. UNEP Global Mercury Partnership

25. The UNEP Global Mercury Partnership provides a structure within which technology transfer, support and information sharing may be provided, consistent with the overall goal of the protection of human health and the global environment from the release of mercury and its compounds by minimizing, and where feasible ultimately eliminating, global anthropogenic releases of mercury to air, water and land. As yet, limited experience with technology transfer has been gained through the Partnership.

H. United Nations Framework Convention on Climate Change

- 26. The United Nations Framework Convention on Climate Change requires developed country parties to take all practicable steps to promote, facilitate and finance, as appropriate, the transfer of, or access to, environmentally sound technologies and know-how to other parties, particularly developing country parties, to enable them to implement the provisions of the Convention.
- 27. Pursuant to that requirement the Conference of the Parties at its seventh session adopted a technology transfer framework. The parties opted for a country-driven, integrated approach to implementing the framework that would operate at the national and sectoral levels. Under the framework the provision of technical assistance is to rest on cooperation between various stakeholders (the private sector, Governments, the donor community, bilateral and multilateral institutions, non-governmental organizations and academic and research institutions). The framework features five key themes and areas for meaningful and effective action: technology needs and needs assessments; technology information; enabling environments; capacity-building; and mechanisms for technology transfer.
- 28. The Convention secretariat, in the context of the Convention's technology subprogramme, is devising options for implementing commitments under the Convention and its Kyoto Protocol on the development and transfer of climate-friendly technologies. Under the subprogramme, the secretariat is responsible for supporting the deliberations of the Subsidiary Body for Scientific and Technological Advice on this issue by, for example, organizing round-table discussions and other specialist meetings on technology and preparing documentation, including technical papers.
- 29. A website for the technology subprogramme has as its principal goals improving the flow of, access to and quality of information relating to the development and transfer of environmentally sound technologies under paragraph 5 of article 4 of the Convention and of contributing to the more efficient use of available resources by providing synergy with other efforts. It provides up-to-date information on technology transfer, allows direct access to databases, publications and case studies and promotes the exchange of views on various technology transfer issues.
- 30. The 2010–2011 programme of work for the Convention's Expert Group on Technology Transfer includes supporting the development of technology needs assessments for parties, the development of innovative options for financing the development and transfer of technologies, seeking opportunities for enhanced cooperation with, and support from, other organizations and promoting collaborative research and development on environmentally sound technologies.

- 31. The Convention's Clean Development Mechanism allows emission-reduction (or emission-removal) projects in developing countries to earn certified emission reduction credits, each equivalent to one ton of carbon dioxide. These credits can be traded and sold and used by industrialized countries to a meet a part of their emission reduction targets under the Kyoto Protocol. The mechanism stimulates sustainable development and emission reductions while giving industrialized countries some flexibility in how they meet their emission reduction limitation targets.
- 32. Operational since the beginning of 2006, the mechanism registered its 2,000th project in January 2010, a biogas extraction and utilization project in Sa Kaeo province, Thailand, expected to reduce carbon dioxide emissions by more than 56,000 tons annually. It is anticipated that the mechanism will produce certified emission reduction credits amounting to more than 2.9 billion tons of carbon dioxide equivalent in the first commitment period of the Kyoto Protocol (2008–2012).

I. UNIDO cleaner production programme and UNIDO/UNEP national cleaner production centre programme

- 33. The UNIDO cleaner production programme aims at building national cleaner production capacities, fostering dialogue between industry bodies and Governments and enhancing investments in the transfer and development of environmentally sound technologies. Through this programme, UNIDO is bridging the gap between competing industrial production and environmental concerns. Cleaner production is more than just a technical solution. It can be applied at all decision-making levels in industry, with the chief focus on the adoption of cleaner technologies and techniques within the industrial sector. Costly end-of-pipe pollution control systems are gradually replaced through a strategy that reduces and avoids pollution and wastes throughout the entire production cycle, from the efficient use of raw materials, energy and water to the final product.
- 34. The UNIDO cleaner production programme represents an innovative approach that increases competitiveness, facilitates market access and strengthens the productive capacity of developing economies, taking into consideration two important dimensions of sustainable development: environmental compliance and social development. The cleaner production concept has also been adopted and promoted by other organizations. For example, development assistance organizations in Norway, Switzerland and the United States of America have promoted cleaner production activities around the world. UNIDO works with those organizations to create synergies.
- 35. Cleaner production can only be sustained if capacity is in place to adopt it and adjust it to local conditions. To make the cleaner production programme a reality and to promote the application of cleaner production by enterprises in developing countries and countries with economies in transition UNIDO, in cooperation with UNEP, began in 1994 to set up national cleaner production centres and national cleaner production programmes. Since then, some 50 such centres and programmes have been established; others are in the planning stage. UNIDO manages the network of centres and programmes and works with other organizations, such as UNEP, to provide cutting edge experience and strategic direction. Further details relating to the national cleaner production centres and programmes may be found in document UNEP(DTIE)/Hg/INC.1/9.