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Emerging policy issues: environment in the multilateral system

Financing the chemicals and wastes agenda

Note by the Executive Director

1. The consultative process on financing options for chemicals and wastes was launched by Mr. Achim Steiner, Executive Director of the United Nations Environment Programme (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 of the Stockholm Convention on Persistent Organic Pollutants, held in Geneva in May 2009, as a response to difficulties encountered in reaching agreement on a compliance mechanism owing to concerns that the available capacity and resources for such a mechanism were inadequate. A further announcement of the process was made the following week, at the second session of the International Conference on Chemicals Management, held in Geneva. The purpose of the consultations would be to analyse the current situation with regard to financing for chemicals and waste management at the national level, including but not limited to the implementation of Party obligations under chemicals-related multilateral environmental agreements, and to devise strategic, synergistic proposals for improving it. The consultations would also provide advice to the UNEP Executive Director on options that could be pursued to move forward in this area.

2. To initiate the process, a brainstorming meeting was held in Nairobi on 24 and 25 July 2009, during which participants called upon UNEP to undertake a desk study to explore the funding and support needs of developing countries and countries with economies in transition and relevant ways to support compliance with chemicals and waste-related multilateral environment agreements and capacity-building, including institutional strengthening and technical assistance for promoting the sound management of chemicals and wastes in broader terms. A preliminary desk study¹ was produced for consideration at the second meeting of the consultative process on financing options for chemicals and wastes, which took place in Bangkok on 25 and 26 October 2009. It provided the background for participants' consideration of options to secure adequate financing in the areas of chemicals and wastes.

3. At its second meeting the consultative group provided feedback on the preliminary desk study and requested UNEP to revise it so that it could become a reference document that would form the basis of further discussions on financing options for the chemicals and wastes agenda. The revised desk study

* UNEP/GCSS.XI/1.

¹ <http://www.unep.org/environmentalgovernance/LinkClick.aspx?fileticket=hzZjHbNEfQI%3D&tabid=1635&language=en-US>

outlines the range of options (referred to as “tracks”) for securing adequate financing in the areas of chemicals and wastes. Most of these options are not mutually exclusive and would be mutually reinforcing if implemented in a coordinated manner. The revised desk study is set out in the annex to the present note and has been reproduced as received, without formal editing.

4. During the second meeting, participants also requested UNEP to produce a paper on policy options for financing the chemicals and wastes agenda, with a focus on outlining advantageous paths and combinations of options to move the chemicals and wastes agenda forward. The policy options paper can be found in document UNEP/GCSS.XI/INF/8/Add.1.

Annex

Desk study on financing options for chemicals and wastes

Revised version based on comments and suggestions made at the second meeting of the consultative process on financing options for chemicals and wastes, held in Bangkok on 25 and 26 October 2009

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I. Introduction

A. The UNEP-led Consultative Process on Financing Options for Chemicals and Wastes

Following the fourth meeting of the Conference of Parties to the Stockholm Convention (Geneva, 4-8 May 2009) and the second session of the International Conference on Chemicals Management (ICCM) (Geneva, 11-15 May 2009), a UNEP-led Consultative Process was launched on identifying options for securing adequate financing in the areas of chemicals and wastes.

This initiative was taken in response to a growing recognition of the urgent need for securing adequate financial means, as well as providing strengthened capacity building and technical assistance towards the implementation of the chemicals and wastes agendas, and recognizing the importance of linking obligations to financial and technical assistance.

This link was highlighted at the fourth meeting of the Conference of the Parties to the Stockholm Convention (4-8 May 2009), where developing countries and countries with economies in transition stressed the importance of adequate financial and technical assistance as essential requirements for the establishment of an effective compliance mechanism.

The objective of the Consultative Process is to contribute towards identifying existing, new and additional resources for supporting the sound management of chemicals and wastes, including but not limited to, ensuring compliance with the chemicals and waste-related conventions. The initiative is intended to provide advice to the UNEP Executive Director on options that can be pursued to move forward in this area.

To initiate the process, a brainstorming meeting was held in Nairobi from 24-25 July 2009, which called on UNEP to undertake a desk study to explore the funding and support needs of developing countries and countries with economies in transition, and relevant ways to support: a) compliance with chemicals and waste-related multilateral environment agreements (MEAs), and b) capacity building, including institutional strengthening and technical assistance for promoting the sound management of chemicals and wastes in broader terms.

B. Desk study

A preliminary desk study² was produced for consideration at the Second Meeting of the Consultative Process on Financing Options for Chemicals and Wastes that was held in Bangkok on 25-26 October 2009. It provided the background for the consideration of options to secure adequate financing in the areas of chemicals and wastes. The Second Consultative Meeting discussed the content of the preliminary desk study and indicated several areas for improvement and the need for it to be revised accordingly and to become a reference document for further steps in the process. Based on these comments, UNEP has undertaken additional work and has produced this document.

C. Scope of the document and relevant sources

The desk study contains an overview of the chemicals and wastes industry and the impacts, a needs assessment for the sound management of chemicals and wastes, tracks for moving the global agenda forward. Various studies and assessments, and internal sources were consulted in preparing this study. These are listed in Annex I.

For the purposes of this desk study, the “chemicals and wastes” agenda refers to:

- The three chemicals and wastes related conventions i.e. the Basel, Rotterdam and Stockholm Conventions, including decisions of the relevant Conferences the Parties and all activities needed to implement them;
- The Strategic Approach to International Chemicals Management (SAICM)
- The UNEP Global Mercury Partnership and the other work on mercury mandated by the Governing Council / GMEF, as well as the implementation of a legally binding instrument on Mercury which is currently being negotiated;
- Other aspects of UNEP’s work on chemicals and wastes mandated by the UNEP’s GC/GMEF, such as the recent decisions 25/5 on Chemicals Management, including Mercury and 25/8 on Waste Management .
- UNEP’s programme of work contained in the thematic area Harmful Substances and Hazardous Waste as well as relevant aspects of the Resources Efficiency – Sustainable Production and Consumption and the Environmental Governance thematic areas of the UNEP’s medium term strategy for 2010-2013 approved by the UNEP Governing Council at its 25th session.

² <http://www.unep.org/environmentalgovernance/LinkClick.aspx?fileticket=hzZjHbNefQI%3D&tabid=1635&language=en-US>

II. Background

A. The chemicals and wastes industry and impacts

1. The chemicals industry

The chemicals industry is a major driver for economic development. Chemicals are used in the manufacture of everyday products upon which we depend and are essential for economic and social development. However, the use of substances such as dioxins, sulphuric acid, mercury, lead and arsenic can pose significant risks to human health and the environment. The field is so wide that practically every UN agency, fund or programme is concerned with one aspect or another of the chemicals portfolio.

In 2007, the global chemical industry realised an estimated turnover value of about €2,320 billion (US\$ 3,180).³ More than 20 million people around the globe are employed directly or indirectly by the chemical industry, with millions of chemicals on the market new ones produced each year. The increasingly widespread presence and use of chemicals worldwide generates an enormous burden for monitoring authorities to assess the effects of each new chemical, let alone their cumulative effects, on human beings and on the environment.

Recently, the chemicals industry has been gradually moving into the developing countries that are less prepared to manage chemicals and wastes in a safe and sustainable manner. While 80% of the world's total output of chemicals came from 16 OECD countries in 2001, it is predicted that by 2020 developing countries will lead the world in growth rates for high volume industrial chemicals production (i.e. those produced at more than 1000 tonnes per year) increasing their share of the world's chemical production to 31%⁴. Likewise, chemical consumption in developing countries is growing much faster than in developed countries and could account for a third of global consumption by 2020.

2. The waste industry

Waste management has become a very important economic sector in its own right; it generates millions of jobs, worldwide, ranging from high level engineers and entrepreneurs to the poor in developing countries who process waste without any appropriate safeguards. Accurate aggregate figures on the amount of waste generated world-wide are not available, due to incomparable data and the absence of standard terminology and monitoring standards within the waste industry. However, reflecting the continued increase in global consumption, it is clear that waste volumes are predicted to grow at a rate similar to GDP in the foreseeable future.⁵

Given that as of 2002, unsafe waste disposal practices that cause irreversible environmental and health concerns, such as open dumping, ocean dumping or on-site burning were still practiced in at least 175 countries, the transboundary movement of wastes from countries with more stringent standards to those with less stringent or poorly enforced standards is of great concern.⁶ Despite the Basel Convention restricting the transboundary trade of certain kinds of waste, the amount of hazardous waste shipped to developing countries is increasing. For example a 2002 estimate of e-waste shipments from non-ratifying countries suggests that 50-80% of e-waste is not recycled domestically but rather shipped to developing countries. Statistics from Reports to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal suggest that between 1993 and 2001 the amount of waste transported around the globe increased from 2 million tonnes to more than 8.5 million tonnes. Furthermore, while it is estimated at only 2% of global waste output is exported 90% of what is exported is classed as hazardous. Moreover, available figures do not reflect the impact of illegal waste movements and dumping.⁷

3. Recent trends

Addressing the environmental and health hazards associated with chemicals and wastes is becoming more and more important and at the same time problematic in light of recent trends. This problem is not confined to the developing countries alone but equally affects developed countries. The movement of people, commodities and diseases are practically impossible to stop although they may be slowed down. The production,

³ See International Council of Chemical Associations, 2009, ICCA Review 2007-2008.

⁴ OECD Environmental Outlook for the chemical industry, 2001.

⁵ United Nations Environment Programme - Industry as a partner for sustainable development: waste management, 2002

⁶ United Nations Environment Programme - Industry as a partner for sustainable development: waste management, 2002

⁷ UNEP, Basel Convention Secretariat and Grid Arenal, Vital Waste Graphics, 2004

consumption and processing of chemicals as mentioned above are increasingly moving to the developing world, with many countries not ready yet to safely handle such chemicals and wastes due to lack of appropriate technology, capacity and adequate regulatory frameworks and enforcement mechanisms.

As noted above, the export of hazardous wastes is increasing, as is the total amount of wastes generated globally. The growing quantities of e-waste are also creating a problem for the Basel Convention; due to the toxic cocktail of compounds in e-waste and the labour and energy intensive processes necessary for safe disposal, there is a large incentive towards offshore processing and disposal, as well as illegal dumping.

4. The environmental impacts of poor chemicals and waste management

Chemicals and wastes that are not (or very slowly) biodegradable pose a serious threat to the environment and human health. For instance, some persistent organic pollutants (POPs) containing pesticides are applied every year to crops, and do not biodegrade for fifty years or more. The continuous use of these POPs reaches a saturation point, and once that threshold is reached, the soil is poisoned, along with the plant and animal species. These chemicals enter into the food chain, often causing irreversible damage to human health and exposure to these POPs has been documented to cause cancer, liver and kidney failures, weaken the immune system and reduce fertility. This is just an example of the multitude of chemicals that pervade our lives today that can have disastrous effects on the environment and on human beings. This has been demonstrated by the several chemicals and wastes accidents that have been documented in the recent decades.

In addition to acute environmental disasters that make international headlines, slow-onset disasters may become apparent only because human targets happen to be on the release path as was the case in the Minamata (Japan) incident when organic mercury was routinely released and ingested by fish downstream; those who consumed the contaminated fish developed 'kihyo' or mystery disease that caused unusual neurological disorder which lead to the death of 35 persons. Another example of a chemical accident that has taken years to come to light is the Love Canal Incident in New York State (USA).⁸

It is estimated that there are two million contaminated sites in Europe, the US and the Russian Federation alone. Incidents which attract media attention, like Bhopal, Seveso and Côte d'Ivoire, are but the tip of the iceberg in terms of the damages caused to human health and to the damages yet to occur.

5. The human impacts of poor chemicals and waste management

A clear link has been established between poverty and increased risks of exposure to hazardous chemicals and waste, as it is predominantly the poor who routinely face unacceptably high risks because of their occupation, living situation and lack of knowledge about the detrimental impacts of exposure to these chemicals and wastes. Poor neighbourhoods are often located around industrial areas and waste dumps; this makes the poor the first to suffer from accidents or the adverse environmental impacts of factories' operations (or environmental 'externalities'). In addition, in many social contexts the poor collect recyclable wastes from waste dumps and are exposed to a multitude of contaminated and hazardous wastes that are not disposed of separately at the point of production or use. These jobs also constitute an important source of livelihood for the poor and somehow help in the recycling or reuse of materials that would otherwise pile up in waste disposal sites.

While chemicals are a major contributor to national economies, sound management throughout their lifecycle is essential not only to avoid significant risks to human health and ecosystems along with their associated economic costs, but also to maximize the full benefits of their contribution to human well being. The challenge is to ensure that these sectors become job creators more upstream in prevention of environmental harm than downstream in cleanup operations; such upstream opportunities can be academic research into ways and means to reduce pollution through using less raw materials, making the use of raw materials more efficient, recycling materials and treating wastes on the site where they were produced and providing for technical staff responsible for monitoring and assessing risks towards preventing them.

⁸ Love Canal, near Niagara Falls, N.Y., was destroyed by waste from chemical plants in 1953. When people built homes on the waste site, residents started to develop exceptionally high levels of cancer and genetic disorders; it was only in the 1990's after a very costly clean up and rehabilitation operation that families could begin to move back to the area.

6. The low priority of chemicals and waste management

Even with the adoption of chemicals and waste related convention and strong international advocacy since Agenda 21⁹ was adopted, chemicals and waste management receives only limited financial support. Hence, the Consultative Process should take into account the root cause of the problem, and should start developing realistic options for financing chemical issues based on the current situation.

Unlike other environmental problems, that the general public can relate to more easily, such as biodiversity and climate change, the problems addressed by the chemicals and wastes related MEAs face a more challenging task, as chemicals are generally perceived as less visible in our daily lives, unless there is broad press coverage of accidents involving chemicals, such as for example the accidents in Bhopal and Seveso, or more recently in Cote d'Ivoire.

B. Chemicals and Waste-related MEAs and other Processes

The intentional and unintentional transboundary movement of chemicals in the environment resulted in various efforts at the international level to agree that international control regimes were necessary. As a result, several international agreements and non-legally binding instruments are in place today and an additional agreement on mercury is soon to be negotiated. Each agreement deals with a specific part of chemicals and/or waste management, and in some cases, only focus on specific groups of chemicals, with the exception of the Strategic Approach to International Chemicals Management (SAICM) which has a very broad scope.

1. Multilateral Environmental Agreements

A synopsis of the three chemicals and waste-related conventions and programmes covered by this study can be found in Annex II. While the 1987 Montreal Protocol on Substances that Deplete the Ozone Layer, that also addresses chemicals, is not included, its Multilateral Fund is often referred to in this document as it provides a possible avenue of financing for other chemicals and/or lessons that can be applied across the board to financing chemicals and wastes.

2. Policy frameworks and work programmes

The **Strategic Approach to International Chemicals Management (SAICM)** was adopted by the International Conference on Chemicals Management (ICCM) in 2006 as a policy framework to foster the sound management of chemicals. SAICM was developed by a multi-stakeholder and multi-sectoral Preparatory Committee and supports the achievement of the goal agreed at the 2002 Johannesburg World Summit on Sustainable Development of ensuring that, by 2020, chemicals are produced and used in ways that minimize significant adverse impacts on the environment and human health. Support for the implementation of SAICM activities is provided by the time-limited Quick Start Programme (QSP). The objective of the QSP is to “support initial enabling capacity building and implementation activities in developing countries, least developed countries, small island developing States and countries with economies in transition.” The QSP has approved 82 projects for total funding of approximately US\$16,019,986.

Lastly, given the multi-sectoral and cross-cutting nature of the chemicals and wastes agenda a range of UN system agencies and bodies and related partners have work programmes related to chemicals, including FAO, ILO, OECD, UNDP, UNIDO, UNITAR, WHO, and the World Bank.

3. Recent developments in advancing the chemicals and wastes agenda

As part of renewed efforts to bring coherence to international environmental governance, Parties to the Basel, Rotterdam and Stockholm Conventions established the Ad-hoc Joint Working Group in 2008 to explore synergies among the three conventions. The decision on enhancing cooperation and coordination among the Basel, Rotterdam and Stockholm conventions adopted by all three conventions identifies enhancing cooperation and coordination in the following areas:

- a. Organizational issues, including coordination at the national level, programmatic cooperation in the field, and the coordinated use of regional offices and centres;
- b. Technical issues, including national reporting, compliance and non-compliance mechanisms, and cooperation on technical and scientific issues;

⁹ Chapters 19 and 20 address respectively Environmentally Sound Management of Toxic Chemicals, Including Prevention of Illegal International Traffic in Toxic & Dangerous Products and Environmentally Sound Management of Hazardous Wastes, Including Prevention of Illegal International Traffic in Hazardous Wastes.

- c. Information management and public awareness issues, including, joint outreach and public awareness, information exchange and a clearing house mechanism on health and environmental impacts, and joint input into other processes; and
- d. Administrative issues, including joint managerial functions; resource mobilization, financial management and audit functions, and joint services; and
- e. Decision-making, including coordinated meetings, convening Extraordinary meetings of the Conferences of the Parties, and review arrangements.

Regarding resource mobilization, the decision invites the UNEP Executive Director “in consultation with the Director General of the Food and Agriculture Organization, in providing the secretariat functions of the Basel, Rotterdam and Stockholm conventions, to establish, on an interim basis, through the Executive Secretaries of the three conventions, a joint resource mobilization service within the secretariats in Geneva”. The aim of the service is to support the implementation of the three conventions beyond that achievable through separate action.

In February 2010, the first simultaneous extraordinary meetings of the Conferences of the Parties to the Basel, Rotterdam and Stockholm Conventions will be held in Bali, Indonesia. These meetings will take the process forward towards implementation of the synergies decision.

III. Needs assessment for the chemicals and wastes agenda

A. Qualitative needs

Many countries do not possess the capacity and know-how to manage harmful chemicals and wastes, including hazardous wastes in a safe and environmentally sound way. On this basis, many developing countries and countries with economies in transition became parties to the chemicals and wastes related MEAs with the understanding that assistance would be provided to address these constraints. Similarly, many countries face difficulties in handling the multiple challenges represented by the management of chemicals and wastes independent of their respective obligations.

Developing countries’ needs for assistance can be broadly divided into two categories. The first category is related to **building and enhancing capacity**. This includes activities such as policy/legislation development, development of enforcement tools, training of customs and other officers, data collection and reporting capability, design and implementation of national compliance strategies and project development. These can also be referred to as enabling activities since they bolster the capacity of the government and other relevant institutions to manage and implement the national compliance strategy under various conventions. The second category is investment activities which could include **economic and technical support** to restructure the affected industries as a result of implementing the conventions and to support other activities outside of the conventions, such as waste management in areas not covered by the Basel convention. In such cases, economic and technical support may be needed to compensate for the closure of industrial plants and the displacement of labour, in other cases, environment-friendly technology may be transferred to produce new products or to manage waste in a safe and environmentally sound manner.

To further elaborate the specific interventions that are needed to achieve safe and environmentally sound management of chemicals and waste, a global assessment /review of obligations as well as implementation plans under relevant MEAs and activities that need to be conducted to ensure the safe and environmentally sound management of chemicals and wastes in line with national priorities based on internationally agreed goals (e.g. Agenda 21, MDGs, and other relevant frameworks) could be conducted.

Considering that a huge variety of stakeholders are involved in the production, handling, use and disposal of chemicals and wastes, as well as the legal, control and enforcement structures, it is important to understand the respective roles of relevant stakeholders to ensure that the crucial stakeholders are involved in an assessment exercise and any following steps.

B. Quantitative needs

Putting an exact dollar value to the overall financial needs of the broader chemicals and wastes agenda is a difficult task, partly because of the complex and interconnected nature of the challenge, and partly because data on all activities pursued, planned and needed is not readily accessible. Some estimates towards this dollar value exist, but to obtain a more comprehensive figure of the overall financial challenge would require a dedicated assessment. According to the SAICM Secretariat it is currently impossible to offer an all-encompassing qualitative needs assessment beyond that provided in the Overarching Policy Strategy itself or to provide a comprehensive

estimate of the associated financial needs in either quantitative or qualitative terms. It is estimated however that it could be in the order of hundreds of millions of dollars (SAICM/ICCM.2/12).

For an estimate to be credible, it is necessary to first identify the activities that need to be carried out before suggesting a price tag. The previous session attempts to analyse the needs from a quantitative point of view, but a more dedicated exercise to review all measures needed to comply with MEAs and with national priorities in this area beyond international obligations is needed. This can only be made with the involvement of all concerned stakeholders. However, such an exercise has been carried out in the context of the Stockholm Convention and a needs assessment was presented at the Fourth Conference of the Parties to the Stockholm Convention (COP-4).

The needs assessment produced for the Fourth Conference of the Parties to the Stockholm Convention (COP-4) estimated the total needs of 68 parties (who had completed their National Implementation Plans) at USD9.2 billion to implement the requirements of the Stockholm Convention (UNEP/POPs/COP.4/27), however due to inconsistent information provided by the parties this figure is difficult to disaggregate “core” activities from the total figures. According to the assessment only a few Parties attempted to disaggregate costs into “baseline” and “incremental” categories.

Breakdown per region, based on needs assessment:

Region	Total regional financial need (2009-2015+) (USD mill)
Africa	2,068.04
Asia and the Pacific	6,195.85
Central and Eastern Europe	667.56
Latin America and the Caribbean	227.56
Total needs	9,159.37

It is clear from the above, that the needs for implementing the chemicals and waste agendas are significant. Further the estimated USD9 billion required to implement the Stockholm Convention is based on the needs of only 68 countries to implement just one of the agreements. This does not take into account the finance required to implement the obligations of Rotterdam, Basel, or SAICM, nor the new chemicals added to the Stockholm Convention. As such, despite the high figure, it must be acknowledged that the USD9 billion represents only a partial estimate of the finance needs.

Furthermore, the modalities by which activities are carried out might have an important impact on the cost of such activities, i.e. there could be more efficient ways to address certain needs, for instance through synergies with measures taken to address other problems. Any attempt to try and assess the dollar value will therefore need to be based on a very well thought methodology that should take into account the complexity of the exercise and should be based on clear assumptions to avoid providing misleading figures.

Also, it would be counterproductive to provide a budget estimate without having sought the confirmation of the stakeholders involved who are directly concerned. Following a bottom up, country based approach might be preferable. With such an assessment it would be possible to clarify the size of the wide gap between the mandate and the resources requested or available, which is widely felt but difficult to substantiate with figures. The POPs study referred to above provides some indication of such a mismatch.

With specific reference to the three chemicals and wastes related conventions and SAICM, the following table shows the amount of financial resources received by the conventions and SAICM during the last three years of 2006-2008:

(USD million)

<i>Convention/Trust Funds</i>	2006	2007	2008
Basel	5.439	5.678	6.635
General (assessed)	3.800	3.616	4.565
Special (voluntary)	1.639	2.062	2.070
Rotterdam	4.723	4.985	4.333
General (assessed)	3.741	3.841	3.700
Special (voluntary)	0.982	1.144	0.633
Stockholm	7.886	6.877	7.920
General (assessed)	5.466	4.663	5.879
Special (voluntary)	2.420	2.214	2.071
SAICM	6.782	8.976	6.953
Special (voluntary)	6.782	8.976	6.953
<u>Grand TOTAL</u>	24.830	26.516	25.841

GEF: As of October 31, 2008, the GEF had committed US\$ 360 million to projects in the POPs focal area since adoption of the Stockholm Convention in May 2001. This cumulative GEF POPs allocation had leveraged some US\$ 440 million in co-financing to bring the total value of the GEF POPs portfolio to US\$ 800 million. Until now there has been only one POPs window and all projects had to have a direct link to POPs chemicals. Following the discussions at the 1st meeting for the 5th replenishment of GEF (17-18 Mar 2009) there are indications that GEF5 might go in the direction of a broader chemicals window including PIC, POPs, Basel, SAICM, but nothing is decided yet. Also no indications from donors are available on potential amounts of the replenishment.

IV. Tracks to move the global agenda forward

Needs of countries are varied and specific, although many commonalities exist. Focusing on a single mechanism will not solve the problem, but a wide range of measures and mechanisms need to be engaged to provide sufficient financial resources for chemicals management on the long term. However, any combination of measures and mechanisms should be applied in a coordinated and coherent way.

Different models of funding and arrangements are available such as dedicated financial mechanisms tied to compliance; funding for global environmental benefits; mainstreaming of chemicals and wastes priorities into national development agendas, ODA funding whether through multilateral or bilateral arrangements, generation of resources through economic instruments and partnerships. However, the existing financing landscape and the way it is currently used do not cater for the entire spectrum of needs as it has been outlined in several international fora.

In order to address this mismatch and to fully engage all stakeholders involved in filling existing gaps, several paths can be followed. While terms such as building blocks and options were used in the previous version of this Desk Study, the Second Consultative Meeting indicated a preference for the term “tracks” which reflects the fact that all the possible paths described below can be pursued in parallel, and only some of them are mutually exclusive.

A strategy therefore has to be devised, following certain tracks, some of which are described below, and building on the possible role of different stakeholders, i.e. the private and NGO sectors, as well as stakeholders at the national, regional and international levels and in the donor community.

The starting point for bridging the gap between growing challenges and inadequate resources should be the much more efficient use and systematic strengthening of already existing capacities and structures. A huge variety of stakeholders are involved in the production, handling, use and disposal of chemicals and wastes, as well as the respective legal, control and enforcement structures. Each stakeholder group has its own incentives to engage in environmentally sound chemicals management. There is a common, but very differentiated responsibility among the stakeholders involved. The process of looking for a more sustainable financial basis for chemicals and waste management should take into account not only the responsibilities, but should also acknowledge and

systematically support the interests and potential incentives for stakeholders to engage in environmentally sound chemicals and waste management.

The tracks described here are divided into three kinds; foundational tracks which are cross-cutting and can be seen as pre-requisites for sustainable funding and therefore are essential in any roadmap forward; innovative funding mechanisms and partnerships which can be pursued when it is useful and feasible to do so considering the specific national and social context; and institutional and working arrangements, which refer to the architecture and working procedures of existing or new financing mechanisms. Any roadmap forward could combine aspects of all the three categories of tracks.

The following is meant to provide information and some analysis of pros and cons of each path and does not intend to be comprehensive or to advocate for any particular tracks.

A. Foundational Tracks

As mentioned above, a fundamental prerequisite for bridging the gap between growing challenges and inadequate resources is the more efficient use and systematic strengthening of already existing capacities and structures and the involvement of all relevant stakeholders. The integration of any combination of approaches needs to happen in a coordinated way. The following tracks follow these lines and could therefore be seen as foundational for the success of efforts to move forward.

1. International leadership, awareness raising and policy integration

The sound management of chemicals and of hazardous waste remains a critical factor in achieving sustainable development objectives and Millennium Development Goals. As such it has been high on the international political agenda since 1972 with the United Nations Conference on the Human Environment during which pollution with toxic and dangerous substances was a central issue. It was specifically addressed in 1992 by the United Nations Conference on Environment and Development with the adoption of Chapter 19 (on Environmentally sound management of toxic chemicals, including prevention of illegal international traffic in toxic and dangerous products) of Agenda 21 and again at the WSSD in 2002 paragraph 4 where the 2020 goal of producing and using chemicals in ways that lead to the minimization of significant effects on human health and the environment was established in the Plan of Implementation of the Johannesburg Summit, paragraph 23.

Whereas chemicals and hazardous wastes are primarily the responsibility of individual countries and therefore funding needs to be available and adequate primarily at the country level, there are some aspects that can only be dealt with at the international level. While global environmental problems become increasingly threatening for both the environment and health, efforts undertaken by the international community are yet not sufficient or effective. While several global agreements and other comprehensive programmes have been established, their implementation remains problematic. Multilateral and bilateral cooperation therefore play a fundamental role in supporting such implementation. Clear and coherent international leadership is essential to promote the effectiveness of existing regimes and programmes. Ongoing efforts to increase the effectiveness of International Environmental Governance go in this direction.

The SAICM is a recent response of the international community to the need for a comprehensive and integrated approach to international chemicals management.

For decisions makers and all involved actors to play their part in achieving more sound management of chemicals and waste, they need to understand what is at stake. Awareness about the dangers associated with unsound practices needs to be raised at all levels. Awareness raising campaigns at both international and national levels are essential (although probably not sufficient) to attach priority to these issues and therefore attract resources. A carefully designed strategy could be devised to foster a shift in the level of attention. An awareness strategy could also have an educational objective as to how to deal with chemicals and wastes, targeted at consumers, producers, service providers, decision makers, educators and civil society groups.

With the rapid development of a significant number of international legal instruments and policies for the environment, there has been an increased competition for funds. The success of adequate policies will therefore be dependent on the capacity to continue to raise awareness and maintaining a political and technical focus on the importance of sound management chemicals while demonstrating the contribution and relevance of its programme to the “UN Delivering as One” new set of priorities particularly within the context of the implementation of sustainable development policies.

Many stakeholders undertake sectoral awareness programmes in line with their respective mandates. However, a more comprehensive and across the board strategy would probably be more effective and efficient in terms

of resources use. Strategies followed in other areas, including sensitive ones such as HIV prevention campaigns could be looked at as they might provide useful inputs. Possible avenues to channel such campaigns in addition to the media could include international events, including intergovernmental meetings, sports events, and cultural festivals. Some specific examples were provided by participants during the Second Consultative Meeting in Bangkok, including using the upcoming Soccer World Cup (in South Africa) and the Olympic Games (in Brazil).

Increasing political and financial support could possibly be best achieved by “packaging” the issues in a more attractive manner than is currently the case, e.g. through the link with human health, livelihood, and poverty reduction, and the related MDGs. Causes that are emotionally appealing stand more chance of receiving political and financial support than those without such emotional appeal. This is evidenced, for example, by the success of the Global Fund to Fight AIDS, Tuberculosis and Malaria, and the Vaccine Fund of the Global Alliance for Vaccines and Immunization (GAVI). Both these funds are devoted to fighting deadly diseases in developing countries, and both are funded through voluntary contributions from governments, private foundations, corporations and individuals. Arguably, the health effects and human suffering caused by hazardous chemicals and wastes can be just as serious as the diseases targeted by the Global Fund and the GAVI Fund. Emphasizing this aspect of the problem, and the link to the relevant MDGs, could serve to enhance public concern and hence political and financial support. As developing countries play a rapidly increasing role in the manufacturing and use of chemicals, strengthening of their chemical safety and toxic waste management frameworks will have economic, environmental and health advantages for all concerned.

Practical steps could therefore include the establishment of explicit links of chemicals and waste management with issues that already benefit from a high level of political and financial support (such as poverty reduction strategies, health, climate change, energy, and biological diversity) by highlighting the contributions of chemicals and waste management to these issues and thus providing access to some of the funding available for these issues. Another important development would be the promotion of less overlapping directions from different conferences of the parties affecting implementation of the different but interlinked regimes.

Countries ratify conventions without always having the human or financial means to honour the obligations they have adhered to upon ratifying international agreements. Often, with the best intentions, the governmental department responsible for implementation, monitoring and reporting, finds its priorities (and the corresponding budget allocations) relegated to a secondary level of national priorities, after vital issues like education, health, national defence, etc. It is therefore necessary to help those departments maintain the high level of priority and visibility for such issues.

2. Cost saving through cooperation and synergies

It is evident that substantive savings can be achieved through joint programming, especially in the cross-cutting issues such as training, reporting and data gathering and dissemination. Co-location of secretariats and common administrative facilities can also go a long way towards facilitating synergies, economies of scale and savings in terms of scarce human and financial resources.

While synergies are an undisputed concept, their achievement might be hindered by a series of difficulties which include: the different nature and focus of different conventions; different membership; desire to maintain management autonomy; and difficulties in accounting and reporting. The chemicals and wastes related MEAs have engaged in a synergies process (described in section 2.1) which so far has been quite successful.

In addition to the management, political direction and administrative level, important synergies can also be achieved at the level of delivery of specific activities. This is for instance the case for the national focal points for specific conventions and regional centers which could be employed to serve more than one convention. Below is a more detailed description of such opportunities.

3. More effective capacity building mechanisms

Activities such as support in policy legislation development, development of enforcement tools, training customs and other monitoring officers, data collection and reporting capability, and design and implementation of national compliance strategies are very important to support implementation of international obligations. These capacity building activities can also be referred to as enabling activities since they bolster the capacity of governments and other relevant institutions to manage and implement the national compliance strategy under various conventions, including institutional strengthening and technical assistance for promoting the sound management of chemicals and wastes. It is essential for governments to have the scientific and technical capacity to verify, regulate, authorize or ban chemicals. Institutional strengthening is therefore particularly

important if the public sector is to be in a position to provide leadership in terms of formulating policy tools and policy implementation.

The Multilateral Fund for the Montreal Protocol provides a good example through its 'Institutional Strengthening' project which is relatively modest in terms of cost but gives a high visibility and political strength to the National Ozone Unit (NOU). This global network has greatly facilitated the implementation of the Montreal Protocol and the institutions and could be well utilized to advance the goals of the other conventions. The additional cost for doing so would be marginal and consist of mostly additional personnel and communication cost¹⁰. However, concerns have been expressed that opening the mandate of existing institutions to additional tasks might undermine the success of those institutions by overburdening them. Therefore, the Ozone network could be looked at as an example of a well functioning system which could be replicated in the context of the chemicals and waste related conventions, and could be designed keeping in mind the need to ensure synergies.

This arrangement should not present any financial implications to the MLF, although it will expand its mandate¹¹. It would represent significant cost savings to those conventions which are seeking capacity-building financing. This option would also help sustain the capacity created under the Montreal Protocol. On the other hand, the process to expand the NOUs's mandate to address the needs of other conventions may present legal and administrative uncertainties which still need to be explored. In addition, it has been noted that this could overburden them and consequently make them less effective.

Other possible avenues in this direction could build on the existing delivery systems at regional level. In the case of the three Conventions, the main regional institutional base upon which to build a coherent and effective delivery mechanism that could address the chemicals and wastes management needs in a coordinated way are:

- Basel Convention regional and co-ordinating centres;
- Stockholm Convention regional centres¹²;
- UNEP Regional Offices; and
- FAO Regional Offices.

A functioning regional network, operating on the basis of a comprehensive and cooperative programme based on the life-cycle approach of materials, could support the three Conventions to build on each of their particular characteristics while valuing their commonalities. The regional network should support the implementation of individual Convention while enhancing what is common to the three instruments (to avoid duplication, gaps, institutional confrontation and legislative hurdles).

The Basel and Stockholm Conventions' regional and coordinating centres, following an assessment and review as necessary of their effectiveness, could be promoted as hubs or key delivery mechanisms for the waste and chemicals conventions, protocols or programmes at the regional level to achieve economies of scale, to enhance capacity for resource mobilisation and to develop stronger technical capabilities for addressing the

¹⁰ Pursuing such an option would present certain legal and administrative implications. To initiate action, the Conference of the Parties which sees merit in such an arrangement should file a request with the Meeting of the Parties of the Montreal Protocol, detailing the co-operation envisaged. It is the prerogative of the MOP to either accept or reject such a proposal.

¹¹ Further analysis would be needed to identify the kind of legal arrangements required to regulate the relationship. The administration of such funding – which would have to be external to the MLF – also needs to be examined. One of the possible modalities could be a trust fund arrangement where the MLF is requested to manage a source of funds in accordance with the policies and criteria determined by the convention concerned and disbursed together with the funds of the MLF.

¹² These regional centres were established under the Basel and Stockholm Conventions as delivery mechanisms for the promotion of environmentally sound management of respectively chemicals and wastes and for assisting in the implementation of and compliance with the respective Conventions. The systems set up under the Basel and the Stockholm Conventions however are very different, especially in respect of how the regional centres are nominated. Based on a review of their effectiveness, efforts could be made to make them vehicles for creating synergies and addressing capacity building needs as well as technology transfer in a more integrated way and with a wiser use of resources.

life-cycle management of chemical, including issues like enforcement and compliance. The network of regional and coordinating centres could be mobilised to provide training courses regarding enforcement, especially customs requirements, in cooperation with UNEP Green Customs Initiative, the World Customs Organisation (WCO), the International Network for Environmental Compliance and Enforcement (INECE), the Seaport Environmental Security Network (SESN), Interpol, the European Environment Agency, IMPEL/TFS programmes in Europe, Africa and Asia and the Organisation for the Prohibition of Chemical Weapons (OPCW) and many other organizations working in this field.

Strengthened regional centres and coordinated regional approaches could also increasingly focus on the use of economic instruments to internalise environmental externalities, on regional procurement programmes, on promoting opportunities for attracting investments in clean technologies, as well as in promoting knowledge and understanding of other ways to attract funding or generate resources that can in turn be re-invested in promoting sustainable waste and chemicals management. This would include project development training programmes. Strengthened regional centres could also work on practical activities such as regional import agreements with chemicals suppliers. In such cases take-back arrangements could be agreed upon, preventing the build-up of unused chemicals.

Additional avenues include the promotion of the establishment of a clearing house mechanism among the Basel, Rotterdam and Stockholm Conventions and with UNEP on best practices; and the development of a common (Conventions and UNEP) information, public awareness and knowledge management strategy.

In order to increase the ability of developing countries and countries with economies in transition, efforts could be made also in advance of any compliance issues, on capacity to design project proposals and access existing finances and generate new ones.

4. Cradle to grave approach

One of the fundamental changes that can contribute to achieving more sustainable management of chemicals and wastes is a paradigm shift from only considering chemicals and wastes when they have already caused environmental harm to an approach that looks towards the fundamental reasons how chemicals cause environmental harm and how wastes are generated. Such a shift involves taking a 'cradle to the grave' approach to chemicals and waste management rather than simply looking at the end point. To this end, financing options must support both activities that reduce exposure to chemicals and wastes, as well as activities that support innovation to develop (see section 4.2 A) safer chemicals and the minimization waste generation. This could include extending innovative pilot programmes such as Chemicals Leasing, as well as providing economic and technical support to industries affected as a result of implementing conventions. Such finance may be necessary to compensate for the closure of industrial plants and the displacement of labour. In other cases, finance may be required for retooling old factories and for transferring environmentally friendly technologies as alternatives to the harmful chemicals or processes.

5. Mainstreaming sound management of chemicals and wastes into other sectors

Chemicals and wastes management is a young field in development cooperation, but it is emerging increasingly as a cross-sectoral theme. Almost all fields of development are affected by issues relating to the chemicals and wastes agenda. Misuse of chemicals and increasing amounts of solid and hazardous wastes negatively impact developing countries and exacerbate poverty. Being highly dependent on natural resources especially through agriculture and fisheries, developing countries are especially vulnerable to the negative impacts of chemical use (SAICM/ICCM.2/INF/46). Similarly, the aforementioned risks also negatively impact public health, and serve to undermine development gains made in the health sector. Chemicals and wastes are also inextricably linked with the agricultural sector. Improving the sound management of chemicals and wastes is also related to the achievement of the Millennium Development Goals (MDGs), due to their linkages with development in broad terms, as agriculture and health. The cross-cutting nature of the chemicals and wastes agenda should be exploited and connections with the issues of poverty reduction, health, agriculture, and climate change made to ensure a more integrated and efficient approach to development interventions (mainstreaming). However, the concept of mainstreaming is in itself not easy to grasp, and identifying the concrete ways to achieve this objective is even more complex.

Experience shows that development aid rarely focuses on chemicals and wastes management¹³ which are also seldom included in countries' requests. One obstacle to integrating the sound management of chemicals and waste into the broader environment and development agenda is the tendency to address and consider chemicals

¹³ Consultations with representatives of the Australian Government, Australian Agency for International Development.

and wastes issues on a case-by-case basis and separately from the wider development agenda. For example, traditional chemical safety control and regulations may be ineffective without more general environmental protection controls which prohibit pesticides and other chemical activities close to drinking water resources, or attempts contain vector borne diseases may be undertaken with unsafe pesticides. This underlies a need to raise the profile of chemicals and wastes issues within the global environmental agenda, as discussed in section 4.1A. Such activities should also highlight the links between sound chemicals and wastes management and wider development goals. It is likely that additional financial resources could be leveraged through making these links. Furthermore, this process could avoid the in the first place the negative environmental consequences of chemicals and wastes that might derive from ill –considered activities undertaken in other sectors.

However, even when governments recognize these interlinkages, management of these areas at the national level remains fragmented. While it might be easier to achieve integration at the project/programme or activity level, by building consideration of waste and chemicals aspects into the project design stage, the international development partnership that has emerged since the Monterrey Consensus and the Paris Declaration has emphasized the importance of country driven programming as put forward in national development policies and plans. Therefore, it is important for countries to mainstream sound management of chemicals priorities into development policies and plans. It is also important for donors and multilateral organisations to promote the mainstreaming of sound chemicals and waste management through their own development activities. Certain donors are increasingly taking a programmatic approach to development activities. The UNDP-UNEP Partnership Initiative for the Integration of Sound Management of Chemicals into Development Planning Processes is working with representatives from various ministries of developing countries and countries with economies in transition to promote such integration. However, this is an area where a lot of work still needs to be done.

An integrated approach both at the aid recipient and the donor level would help address both the lack of understanding about the link between chemicals and wastes and the development agenda, and ensure its practical implementation on the ground. Possible measures to foster progress on both these issues are:

- Capacity building to increase the understanding of the interlinkages between the chemicals and waste sector and poverty , health, and other sectors;
- capacity building to increase understanding of development planning processes, and stages where inputs can be made by different categories of stakeholders;
- production and wide dissemination of concrete and easy to use guidance tools; and
- knowledge sharing on successful case studies.

Some of the advantages that could derive from making these linkages include:

- increased political priority and visibility which in turn can attract more resources;
- creation of job opportunities in the chemicals and wastes sector;
- costs saving in other sectors such as public health expenditure;
- revenues leveraged from fiscal and financial policies primarily targeting other areas towards the chemicals and wastes agenda; and
- increased general public understanding and support for the needs in this area which in turn is essential for sustainability.

B. Innovative funding mechanisms and partnerships

1. Private Sector Partnerships

Public Private Partnerships (PPPs) encompass a wide variety of relationships between the not-for profit and for profit sectors, working together to promote a particular social benefit. These relationships have been becoming

more prominent in the international sphere as a way to solve particularly complex problems. PPPs go beyond a commercial transaction for services and should involve complementarity in goals and expertise. PPPs can be established for many different purposes; for example rule setting, rule implementation and service provision.¹⁴ Typically, however, PPPs focus more on rule implementation (e.g. development of voluntary codes of practice) and service provision (e.g. funding research into new and improved vaccines). PPPs usually imply a recognition that encouraging good social outcomes is in the long term interest of the private sector partner.

For PPPs to be effective, they require complementarities between the parties' interests in order for them to function effectively. These complementarities can be found when both parties can achieve their goals only through cooperation. A relevant example of this involves chemicals disposal: producers have much more expertise than government agencies in relation to safe disposal of chemicals, and require governmental cooperation to develop clear and predictable regulations to facilitate safe disposal. It is also important to note that there are fundamental limits, in both a theoretical and practical sense, on how far a partnership can go as corporations are directly accountable to their shareholders, whose interests might not coincide with those of the wider population.

Governance arrangements are also very important in ensuring effectiveness and sustainability of PPPs. Appropriate safeguards are also needed to ensure that social benefits are not subordinated to the interests of private corporations. While one advantage of PPPs is that they help promote Corporate Social Responsibility (CSR) through promoting a different behaviour in the private sector, there are concerns that inappropriate PPPs can at best amount to privatisation of the public sector, and at worst undermine the goals of the public sector institutions involved. For example, the World Health Organisation (WHO) has a long history of engaging in PPPs with drug companies, and in some instances these PPPs have been criticized for both their governance arrangements and for supporting the industry's interests rather than public health benefits.¹⁵ Central questions that need to be considered are:¹⁶

- Appropriateness; is the problem one that is suitable to a PPP based solution, and do the relevant complementarities exist?
- Representation; which party has control over the partnership and are the private and public sector interests both managed in governance arrangements that promote an overall social goal?
- Accountability; does the governance structure ensure that all parties are accountable for their actions (or inaction), and does it take into account the structural differences between the public and private spheres?

The increased recognition in recent years of the need to involve the chemicals and wastes industry in meeting the challenge of the sound management of chemicals leads to consideration of PPPs. This has occurred to some extent in the SAICM, in which the chemicals industry associations actively participate and contribute in-kind. However, industry groups are reluctant to contribute money to the Quick Start Programme, or other such funds, despite various calls from governments. Creative and targeted engagement with the private sector is therefore necessary.

There are a number of examples of emerging PPPs within the chemicals and wastes area. One useful pathway involves a shift to providing chemical services, rather than the sale of the chemicals, to reduce chemicals consumption and avoid stock accumulation. The concept of Chemical Leasing (ChL) involves the customer paying for the benefits obtained from the chemical, not for the substance itself. Therefore, the customer is no longer responsible for disposal of the chemical and the economic success of the supplier is not linked with product turnover anymore. Chemical Leasing is already practiced in many OECD countries and is being demonstrated in developing countries through the National Cleaner Production Centre (NCPC) network. A related concept that is emerging in the field of e-waste is Extended Product Responsibility (EPR), which extends responsibility for a product to its entire life cycle, shared between producers, retailers and consumers. This principle is embodied in the European Commission Directive on Waste Electrical and Electronic g

¹⁴ Börzel, T. A. and Risse, T. "Public-Private Partnerships: Effective and Legitimate Tools of International Governance?" in Grande, E and Pauly, L. W (eds.), *Complex Sovereignty: On the Reconstitution of Political Authority in the 21st Century*, 2002

¹⁵ Hardon, A. (2001). Immunization for all? A critical look at the first GAVI partners meeting, *HAI Europe*, 6(1), 2–9.

¹⁶ Buse, K. & Walt, Global Public Private Partnerships: Part II – What are the Health Issues for Global Governance?, *Bulletin of the World Health Organization*, 2000, 78 (5)

adopted in 2002.¹⁷ This is also discussed above in section IV.A.4. Another example of efforts to engage the private sector is the Solving the E-waste Problem (StEP) Initiative, established in 2007 to start up and foster partnerships between companies, governmental and non-governmental organizations and academic institutions on meeting the challenges that result from the production, usage and disposal of electrical and electronic equipment. As a public-private partnership initiative founded by various UN organizations, StEP is uniquely positioned to contribute to the formulation of basic principles, policies and strategies, and the development of technologies and projects for action. UNEP is represented on its Steering Committee. The Initiative comprises 50 members from around the world.

Two other initiatives have been initiated by the Basel Convention. At the sixth meeting of the Conference of the Parties in 2003 the Mobile Phone Partnership Initiative (MPPI) was established as a sustainable partnership on the environmentally sound management of used and end-of-life¹ mobile telephones. In June 2008 the Partnership for Action on Computing Equipment (PACE), was launched at the Ninth Meeting of the Conference of the Parties to the Basel Convention. PACE is a multi-stakeholder partnership that provides a forum for governments, industry, nongovernmental organisations and academia to tackle the environmentally sound management, refurbishment, recycling and disposal of used and end-of-life computing equipment. The Partnership is intended to increase the environmentally sound management of used and end-of-life computing equipment, taking into account social responsibility and the concept of sustainable development, and promoting the sharing of information on life cycle thinking.

The role of investment houses, banks and insurers in driving responsible investment, through due diligence and best practice, also requires consideration. The Insurance Working Group (IWG) is an alliance of leading insurers and reinsurers committed to integrating environmental, social and governance (ESG) factors into their core business strategies and operations. Risks posed by chemicals and wastes have received little if any attention and the profile of the severity of these risks needs to be raised among insurers.

2. Economic Instruments

Economic instruments are traditionally defined as:

“Instruments that affect estimates of costs and benefits of alternative actions open to economic agents. Economic instruments, in contrast to direct regulations, thus allow agents the freedom to respond to certain stimuli in a way they themselves think most beneficial.”¹⁸

In general, economic instruments use market incentives and disincentives in order to influence production and consumption behaviour. In terms of chemicals and wastes economic instruments can be used to internalise the environmental externalities and/or to provide finance for the implementation of obligations under the relevant agreements. The goal of internalisation is to ensure that the producer or consumer bears the actual full cost of chemical production and/or use. This is necessary where the polluters (manufacturers, importers etc) are not faced with the full consequences of their production, consumption or disposal choices.

Economic instruments for chemicals and wastes include: waste generation fees (essentially similar to a utility charge); waste disposal/tipping fees; environmental product levies on items that are difficult to dispose of (e.g. bulky or hazardous items); deposit refund schemes, involving a sum per unit paid by the producer or importer to the government, with a percentage of the deposit refunded when the product is disposed of correctly; environmental bonds, where an entity undertaking an environmentally dangerous activity (e.g. chemical production) pays a sum to the government which is refunded if the activity meets certain targets or standards; and tax incentives and disincentives, including granting subsidies and concessions to environmentally sound products and alternatives.

In researching the current application of economic instruments for chemicals and wastes management, it was found that cost internalisation is not often a priority— there is little indication that the fee or tax structures are designed specifically to internalise externalities from poor chemicals management. More often, the goal is cost recovery for providing public chemicals management services, i.e. inspections and extension services. The cost to society of providing chemicals management services is normally many times lower than the cost to society of poor chemicals and wastes management. For example, remediation of the negative health effects

¹⁷ European Union Directive 2002/96/EC

¹⁸ (OECD, 1994, p.17.)

from a single factory can reach hundreds of millions of dollars. Seeking compensation directly from polluters after the event is often not very effective due to the high transaction costs of litigation, that affected individuals gain the benefits from the few who bear the cost of litigation (free-riding), and the possibility that bankruptcy or the corporate veil will mean society will have to shoulder the remediation costs one way or the other. Insurance policies and/or environmental bonds against chemical accidents or involuntary contamination are usually the best protection for the chemical plant and for the victims of chemical mismanagement.

The UNEP Chemicals Branch mainstreaming team is also working on producing guidance for national policymakers on cost recovery instruments for financing chemicals management that covers much of this discussion. The draft guidance on economic instruments for financing chemicals management has shown through a survey of SAICM national focal points, some results that give an overview of the types of economic instruments in general being used for chemicals management. The report also details a selection of these instruments related specifically to cost recovery. The report is still being finalized.

3. Other innovative funding mechanisms

The GAVI Fund is an interesting model for resource mobilisation for the chemicals and wastes because it brings public and private partners together, and utilises novel fund raising mechanisms. The first is the Advanced Market Commitment where the donor commits money to guarantee the price of a vaccine when it is developed provided that the products meet pre-agreed standards and are demanded by developing countries. The first AMC programme was launched in 2009 to fund the vaccine against pneumococcal disease which claims the lives of 1.6 million people per year, including 1 million children before the age of 5. A total of US\$1.5 billion was committed by a number of developed countries and the Gates Foundation. The guaranteed low price of the vaccine also provides the sustained use of the vaccine.

Another mechanism is the International Finance Facility for Immunisation (IFFIm), first proposed at the G7 meeting in 2005, where countries make firm long-term pledges which GAVI uses as security to raise funds at the security market. The IFFIm bonds issued in November 2006 raised US\$1 billion for GAVI. As of January 2008, over US\$800 million have already been disbursed to developing countries. Also worth noting is that the GAVI started by funding the development, production and delivery of vaccines to the recipient countries, but has subsequently expanded its assistance to strengthening health systems in recipient countries in order to overcome barriers to immunization delivery. Perhaps a similar initiative can be created to fund key tasks in sound chemical management such as clean up of contaminated sites that pose a risk to public health, including supporting the creation and/or strengthening of institutions to direct and manage the task. On a small scale some of this work is already being completed by the Blacksmith Institute (<http://www.blacksmithinstitute.org/>), this institute could potentially be scaled up.

Another partnership example for sound chemicals management is the Earth Fund launched at the end of 2007 by the Global Environment Facility (GEF) and the International Finance Corporation (IFC) to “support innovative solutions for the most pressing environmental challenges in developing countries”. The Earth Fund was conceived to engage the private sector in its activities and particularly to link donor funds into private sector creativity, investment, and participation. It is set up to operate as a venture capital entity to provide grants, soft loans and equity participation to fund promising innovations in areas such as second-generation biofuels, water treatment and clean energy. It also partnered with Prize Capital LLC, a private company which uses inducement prizes and capital, to encourage innovations. Since this fund has only just begun, it is difficult to assess it. In principle though there is nothing in the Earth Fund’s mandate to preclude it from considering chemicals and waste related issues. Competition and inducements have in fact been used to benefit chemicals work in the past. PCB test kits were developed in response to a competition and prize inducement. As such the further consideration of the more broad and technological challenges in the areas of chemicals and wastes should be given. As the Earth Fund attempts to form public and private partnerships to finance technology innovations in the interest of environment protection¹³ there may be significant opportunities for chemicals innovations too.

It was further noted that earmarking of funds raised through these economic instruments, for financing chemicals management is not evident. A supplement on earmarking is currently being prepared by UNEP Chemicals, arguing for the earmarking of the funds generated through economic instruments, based on a programmatic approach and with funds flowing through the general budget procedures. This would mean that the funds generated through economic instruments would be earmarked for chemicals management programmes/ recurrent activities but still channelled through the general budget process, thus enhancing accountability and responsibility of the chemicals management agencies for the investment of these funds.

C. Institutional and working arrangements

1. GEF

Mandate: The GEF operates as a mechanism for international co-operation for the purpose of providing new and additional grants and concessional funding to meet the agreed incremental costs of measures to achieve agreed global environmental benefits in the following areas: biological diversity; climate change; international waters; ozone layer protection; land degradation; and persistent organic pollutants. It is also the designated financial mechanism for a number of MEAs, starting with the United Nations Framework Convention for Climate Change (UNFCCC) and the Convention on Biological Diversity (CBD), and later also the Stockholm Convention on Persistent Pollutants (POPs) and the United Nations Convention on Combat Desertification (UNCCD). The GEF also added two cross-cutting areas, one of which is sound chemicals management.¹⁹

The Governing Structure: This includes primarily two levels, the Assembly and the Council. The Assembly which is effectively the Conference of the Parties of the institution which meets once every three years, and reviews the general policies of the Facility and considers, for approval by consensus, the amendment to the Instrument (its charter) on the basis of recommendations of the Council. The Council which meets no less than two times a year and is responsible for developing, adopting and evaluating the operational policies and programmes for GEF-finance activities, including work programmes, utilization of funds; and co-operative arrangements or agreements with the Conference of the Parties to the conventions.²⁰

Major Funding Policies: These include paying for agreed incremental costs to generate global environmental benefits; funding projects and programmes which are country-driven and based on national priorities designed to support sustainable development; and being guided by and accountable to the COPs of the conventions which decide on policies, programme priorities, and eligibility criteria for the purpose of each of the conventions. Since 2005, the GEF has introduced the Resource Allocation Framework (RAF) to provide an indicative level of resources available to countries. The RAF is based on the potential of countries to generate global environmental benefits and the capacity, policies and practices to successfully implement GEF projects and is currently only applicable to the focal areas of biodiversity and climate change. Only 5% of GEF resources in each focal area are excluded from the RAF and allocated to global and regional projects. If GEF is to assume the coordinating role in the chemicals/waste sector, adjustments have to be made to this scheme, while taking full advantage of the proven resource mobilisation ability.

Major Activities Funded through GEF: Since 1991, the GEF has provided USD 8.6 billion in grants and leveraged another USD 36 billion for 2,400 projects in 165 developing countries and countries with economies in transition. The GEF is replenished every four years and only countries who indicate their intention to contribute no less than SDR 64 million can participate in replenishment negotiations, whose outcome is endorsed by the GEF Council.²¹ The preparation of the fifth replenishment (for the period from 1 July 2010 to 30 June 2014 -GEF V) started in November 2008 and is expected to conclude by early 2010. As of October 31, 2008, the GEF has dedicated USD360 million to activities under the POPs focal area and most of these funds were used for enabling activities. Under GEF V, the draft Chemicals Focal Area strategy proposes to consider chemicals activities in a “more systematic and comprehensive manner,” in recognition of the fact that on-the-ground fragmentation of chemicals management issues is damaging at the international level.

In the negotiation for the fifth GEF replenishment, three scenarios were being considered, for a total of 5, 6.5 and 9 billion. 9-10% of the total replenishment (between USD 500 and USD 900 million) is currently earmarked for POPs (GEF/R.5/Inf4). The USD 5 billion scenario, leaves nothing for other chemicals. The other two scenarios, that is USD 6.5 billion and USD 9 billion, include an addition of USD 100 million to fund work on the sound management of chemicals. This proposed USD 100 million is intended to fund projects for

¹⁹ The objective of this cross-cutting work is to promote sound management of chemicals practices in all relevant aspects of GEF programmes, and to contribute to the overall objective of SAICM of achieving the sound management of chemicals throughout their life-cycle.

²⁰ In exercising its responsibility for considering and approving co-operative arrangements/agreements with the Conference of the Parties, the Council is mandated to ensure that these arrangements are in conformity with the relevant provisions of the convention regarding its financial mechanism and include procedures for jointly determining the aggregate GEF funding requirements for the purpose of the convention. However the GEF Council's membership is not always in line with the membership of the Conference of the Parties of the relevant MEAs. The relationship between the GEF governing structure and that of the relevant MEAs is outlined in paragraph 6 of the GEF Instrument as follows: “the GEF shall function under the guidance of, and be accountable to, the Conferences of the Parties which shall decide on policies, program priorities and eligibility criteria for the purposes of the conventions”.

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mercury on a pilot basis, as well as SAICM priority areas. Required co-financing may double this amount, assuming countries can identify relevant sources.

This is a significant increase in finance for work on POPs and chemicals, however it falls well short of the estimated funding requirements even for POPs management (approximately USD 9 billion), and therefore other funding sources will also be necessary.

Track: Introduce safe chemicals management as a new focal area under the GEF

In terms of the needs of the chemicals and wastes-related conventions, the GEF is fully capable technically of financing and managing both capacity building programmes and investment projects which the Conventions require to achieve their goals. The GEF is designated as the key financial mechanism for the POPs Convention and has funded enabling activities through the preparation of national implementation plan in more than 100 countries. However provisions in its Instrument prevent it from entertaining requests in the chemical management area outside the six focal areas. Any attempt to go beyond the allowed areas would need an amendment to the Instrument which requires the GEF Council proposing it and the Assembly considering and approving it by consensus.

Adding a new focal area requires the introduction of an amendment to be proposed by the GEF Council for the approval of the Assembly by consensus. This option has been reviewed and analysed in a number of papers, most recently in Long-term Financing for Implementation of the Strategic Approach to International Chemicals Management (SAICM/ICCM.2/12), a document prepared for the 2nd Session of the International Conference on Chemicals Management in May 2009. The analysis is comprehensive and provides latest development on the subject. Paragraphs 54, 55, 58, 59 and 60 in particular examine the legal steps and procedures to follow and a summary of the discussion is provided below.

The amendment to the Instrument could either introduce an additional chemicals focal area or expand the existing POPs focal area since the GEF has already included the latter, a chemical-related convention as a focal area. In the case of an expansion, the amendment has to ensure that the existing arrangements with the Stockholm Convention are mentioned in both substantive and financial terms. Evidently a number of governments already made submissions in support of a broad GEF focal area on sound chemicals management in the context of the upcoming GEF replenishment. Similarly a request has also been made by the 3rd meeting of the Rotterdam Convention.

Most of the objectives are in line with the objectives identified in this report but some others still need to be introduced such as information and communication, coordinating mechanisms and structures, and reporting. The difficulty is that once the replenishment authorises an allocation, it becomes difficult to adapt to integrate new objectives as and when needed. This normative GEF approach has proven to be occasionally a source of delay or lack of flexibility vis à vis the recipient countries.

As far as the process is concerned, the ICCM of the SAICM should adopt a resolution requesting the GEF to consider the establishment of the new focal area by amending the Instrument. It should be noted that although some countries proposed this at ICCM2 in May 2009, this was not agreed, with some major countries preferring not to direct the GEF. It would be up to the policy organs of the GEF, specifically the Assembly and the Council to consider accepting. Or an understanding would need to be entered into between the GEF and SAICM on the arrangement between the two institutions. It could include for instance the policies, strategies and priorities decided by the ICCM, which adopts resolutions related to SAICM.

2. The Multilateral Fund for the Implementation of the Montreal Protocol

Mandate: The Multilateral Fund (MLF) was established by the Parties to the Montreal Protocol to provide financial and technical co-operation, including the transfer of technology, to Parties operating under paragraph 1 of Article 5 of the Montreal Protocol to enable their compliance with the control measures set out in the Protocol.

The Governing Structure: The Governing Structure of the MLF is two-tier. The Meeting of the Parties of the Montreal Protocol which convenes once per year, is responsible for deciding general policies such as the broad scope and categories of activities to be funded, the membership of the Executive Committee and the three-year replenishment of the MLF. The Executive Committee meets no more than three times per year and is in charge of developing and implementing operational policies of the Fund. It considers and approves projects and programmes, and exercises oversight on funded activities to ensure cost-effectiveness and consistency with the overall policies set by the Meeting of the Parties.

Major Funding Policies: The MLF's major funding policies include the principle of covering the incremental costs of phasing out the consumption and production of ozone-depleting substances (ODS) and performance-based fund disbursement where funds are paid out only upon independent verification of ODS reduction targets being achieved as planned.

Major Activities Funded: Between its inception (1991) and December 2008, about USD 2.5 billion has been disbursed to fund about 6,000 projects and programmes in 144 countries. These activities include providing institutional support in each recipient country, ozone networks covering seven regions, the preparation and implementation of national ODS phase out strategies, funding technology transfers to industries to convert from ODS-based to non-ODS technologies, and compensating for closing down ODS production.

The MLF also provides capacity support to countries. This includes providing funding to support of a national ozone unit (NOU) at the national level. This has significantly improved the rate of annual data-reporting by countries to the Montreal Protocol Ozone Secretariat and facilitated the communication between countries and international organizations. In addition, the MLF also funds a regional ozone officers' network in a number of areas²² which provide a platform for consultation, experience-sharing and conducting south-south co-operation among NOUs to promote the goals of the Montreal Protocol.

The mandate of the MLF is quite similar to what is suggested in this report, namely, phasing out of some products, promoting alternative substances, capacity building, institutional strengthening, reporting and some sort of compensation for closing out undesired production. However, the funding sources for the additional resources (both human and financial) to deal with the much larger issue of chemicals and wastes have yet to be identified and secured.

Track: Expand the mandate of the Multilateral Fund of the Montreal Protocol to finance compliance with the chemicals and waste-related conventions

By design, the MLF is a single-purpose funding mechanism and it offers an excellent model for assisting compliance with the MEA it serves. Analysis has repeatedly confirmed that the overwhelming majority of the Article 5 countries have so far complied with the various interim control measures under the Montreal Protocol and are well-positioned to comply with the complete phase out of CFCs by 2010, the most potent and most widely used ODS.

Given that experience of the MLF in assisting countries to comply with the requirements of the Montreal Protocol has been a successful one and being a chemical-related convention, discussion on the MLF is relevant to the subject at hand. The MLF covers all the activities for which countries may need assistance in complying with the requirements of the other chemicals and waste-related conventions. It has the experience, the infrastructure and the global network to do so.

However, nothing in the Terms of Reference of the MLF gives any indication that it may open itself to entertain funding requests other than those related to the Montreal Protocol. Any proposal to place other chemical and waste-related conventions on its funding list would need consideration and approval of the Meeting of the Parties to the Montreal Protocol. Specifically it would require amending Article 10 of the Protocol which defines the mandate of the MLF. This may also require amending the Terms of Reference of the MLF and the Indicative List of Categories of Incremental Costs, which set out the basic operating parameters of the MLF.

It is worth noting however that there have been some recent developments that indicate a new possible level of flexibility under the Protocol. Firstly, at the Workshop on the management and destruction of ODS and open-ended dialogue on high GWP alternatives for ODS which convened in Geneva in July 2009, immediately prior to OEWG-29, in presentations on funding possibilities the MLF noted that it was collaborating with other funding mechanisms. Secondly, Parties are also currently considering proposals to include HFCs, a non-ODS, in the Montreal Protocol, so there is already some internal examination of expanding the scope of the fund in some quarters.

In sum, the MLF could manage to meet all the needs of the chemicals and waste-related conventions, as it has the experience, the infrastructure and the global network to do so. In the following paragraphs a few initial possibilities are explored which if deemed interesting would require closer examination.

²² These areas are South Asia, West Asia, French-speaking Africa, English-speaking Africa, Caribbean and Latin America, Europe-Central Asia, and Pacific-Island Countries (the South-East Asia and Pacific network has been funded by the Government of Sweden)

Track: Add chemical and waste-related conventions to the funding list of the MLF

Pursuing this option would need consideration and approval of the MOP of the Montreal Protocol and amending the mandate (Article 10 of the Protocol) as well as the Terms of Reference and the Indicative List of Categories of Incremental Costs.

To initiate the action, the COPs of the three conventions (and ICCM/SAICM) should each need to adopt a resolution to request the MOP of the Montreal Protocol to consider funding the compliance needs of countries under the Basel, Rotterdam and SAICM conventions through the MLF.²³ It would be the prerogative of the MOP of the Montreal Protocol to accept or reject the requests. Should the outcome be positive, a memorandum of understanding would be entered into between the MOP of the Montreal Protocol and the COP of each of the Conventions which would define the specifics of the arrangement between the various Parties.

Expanding the mandate of the MLF may need changes in the governing structure and decision-making process both at the MOP and the Executive Committee. Two governance possibilities have been put forward: the first is a governing structure based on multi-convention consultation, which would require consultation and consensus among all Conventions for decision-making. The second is to keep the existing structure, which would require consultation among conventions but would leave decision making with the existing organs under the Montreal Protocol. At the MOP level where general policy matters such as the replenishment are decided, the first possibility may involve the consultation among the COPs of each of the Conventions to achieve consensus. Although this could be more equitable, it is also time-consuming.

The first possibility may also call for changing the composition of the Executive Committee which is currently composed solely of representatives of Governments that are Parties to the Montreal Protocol. This may have to be amended to include representation from the other conventions. Under the second possibility the Executive Committee maintains its current make-up and is delegated to act on behalf of the other conventions in exercising authority on fund management in accordance with the policies and project eligibility criteria decided by the conventions.

The two possibilities on the governing structure of the expanded MLF are likely to have an impact on assessing its financing needs. Under the second possibility a single unified and integrated assessment of funding needs of all the conventions will have to be undertaken, taking into account the synergies across conventions. There could be savings in this regard as compared to a separate assessment done for each convention under the first possibility.

Advantages of pursuing this option, whether possibility one or two, include providing a stable source of funding for the various chemical and waste-related conventions to facilitate compliance; reducing chances of repetitive and duplicative funding as compared to the existing separate funding under each convention; enhancing the possibility of generating real synergies and better chance of sustaining project results. Disadvantages of this approach include possible incompatibility of the organs and institutions of the MLF designed for a single convention for the purposes of a financial mechanism for servicing multiple conventions.

Both this and the above track however might present the disadvantage of overburdening a so-far successful institution and undermine such success. If one of these tracks was followed, this concern should be addressed.

Track: Transform the MLF of the Montreal Protocol to the MLF for the safe management of chemicals

Another possibility is transforming the MLF to become responsible for the overall funding of sound chemicals management. This would be equivalent to establishing a new financial mechanism. Since it would involve several existing conventions and steps towards it will fall within the responsibility of different departments at the country level, internal coordination within each country among these departments would be necessary to demonstrate interest in such a concept and agree to a lead department to explore the concept in global negotiations. If interest is demonstrated in a sufficient number of countries, the UNEP Governing Council could give the Executive Director a mandate to develop the concept into a draft legal framework, taking as reference the terms of reference of the MLF of the Montreal Protocol and the Instrument of the GEF.

Since such a new MLF would be the financial mechanism for a number of conventions, it is envisaged that the governing structure would be modelled on that of the GEF. That is, it would have an independent policy-

²³ Each of the resolution should include a description of the policies, strategies and priorities and a list of categories of incremental costs eligible for funding for the purpose of the convention.

making organ like the GEF Assembly and its own Executive Committee for managing the funding operations. Like the GEF, the new MLF will enter into agreements with the COP of each of the conventions, through its Executive Committee to coordinate and agree on the funding priorities of each convention and an indicative funding level of each funding cycle.

It is envisaged that resources which are currently dispersed at different funding sources for the various conventions would be centrally pooled. These could include funding under the existing MLF, the GEF funding for the Stockholm Convention, funding pledges made for the Basel Convention, the Rotterdam Convention and SAICM. It should also include the planned funding from bilateral sources for these conventions. Replenishment of the new MLF could follow the pattern of the existing MLF at a three-year interval and should be based on the careful analysis of the funding requirements of each convention in light of its compliance needs in the upcoming cycle, taking into consideration the potential for savings derived from synergies across conventions.

As with the previously described option, a key advantages of pursuing this approach is to provide a stable source of funding for the various chemical and waste-related conventions to facilitate compliance; reducing chances of repetitive and duplicative funding as compared to the existing separate funding under each convention; enhancing the possibility of generating real synergies, and a better chance of sustaining project results. For example, a national chemicals unit taking care of all conventions at the national level would not have to be dissolved with the completion of the Montreal Protocol work, while a national ozone unit would probably disappear with valuable capacity created during Montreal Protocol implementation being lost.

Disadvantages include the possibility of long, complicated and potentially difficult negotiations to agree on a new financial mechanism. Another concern is that moving the MLF from a single focus financial mechanism to a broader mandate would in some way compromise and disrupt the smooth and orderly operation of the MLF and ultimately reduce commended effectiveness.

Another option that could be explored under the MLF operations relates to cost-sharing to sustain the national capacity. More details about this option are outlined above under section IV.A.3 Capacity Building.

3. Convention Trust Funds

Financial arrangements for the Basel, Rotterdam and Stockholm Conventions follow the general pattern for most MEAs, i.e. to rely on two types of trust funds: general trust funds to support the operation of the Convention and special or voluntary trust funds to support additional activities.

The general trust funds are used to meet the expenses of the conventions covering the ordinary expenditures of the secretariats, including staffing and administrative office costs and overhead, support for secretariat preparation and translation of materials, and staff members' attendance at meetings of the parties and subsidiary bodies (but not the attendance by the representatives of the Parties). In this respect the Vienna Convention and Montreal Protocol represent an exception. Contributions of the individual Parties are compulsory and based on the United Nations scale of assessments for apportionment of the expenses of the Organization. These trust funds also receive in-kind contributions from UNEP, other organizations and host countries.

The second type of trust funds, also known as voluntary trust funds, are used mainly for the financing of activities, including technical assistance, and participation of developing countries and countries in economies in transition in convention meetings. Unfortunately, these funds are often insufficient to cover the participation of all developing country parties to the relevant meetings. More importantly, they are unpredictable from one session to the next, which makes planning a very difficult and uncertain exercise.

Only the Stockholm Convention relies on a dedicated financial mechanism managed by the GEF. The Conferences of the Parties to the three chemicals and wastes related conventions have committed to a synergies process that has cost savings and resource pooling associated with the running of and implementation of the three instruments as one of its core motivation.

Track: The creation of a multi-donor Trust Fund

This option would entail establishing an additional multi-donor, multi-year thematic trust fund for financing activities under the three chemicals and wastes-related conventions and SAICM and developing joint programme actions at a bigger scale.

Advantages would include the possibility of following a step by step approach, introducing increasing programmatic and financial collaboration. A single trust fund may be more attractive to donors and assist developing countries in implementing their commitments, followed by the joint implementation activities. Disadvantages would include the limited impact on the image and capacity of the three conventions, which continue focusing on their individual programmes and actions.

This option would need to be further analysed, to examine possible hosting organization, legal and administrative arrangements, and funding policies among others. These aspects could be drawn from the other options.

SAICM could be a useful policy framework for such a fund, due to its comprehensive nature and the involvement of a broad range of stakeholders. Within SAICM, the Quick-Start Programme could also be looked at for the advantages it presents with regard to funding policies, particularly quick access to funds. This could be done by either upgrading the QSP or using some of its features as a model.

The analysis of the hosting institution will have to take into account the comparative advantages of existing institutions and if it is preferable to establish a new organization. Appropriate governance arrangements are essential: in particular, a close tie between the governing bodies of the relevant MEAs and the bodies responsible for the allocation of funds is crucial to effective and needs-responsive funding arrangements.

The MLF of the Montreal Protocol also offers some good points that could be worth replicating, either under a separate structure or in connection with an already existing entity. The Montreal protocol has been implemented with the best rate of success, thanks to a highly effective MLF, compared to all other similar conventions. Some of the positive features that have been identified as reasons for success of the MLF and which could make this a good model for funding chemicals and wastes include:

- Ease of access and quick response to funding requests;
- Predictability of funding, that is allocated to respond to previously identified compliance needs;
- A multi-year approach under which subsequent tranches of funding are released only when certain milestones are reached;
- An effective and detailed monitoring system;
- Strong country ownership; and
- The similarity between issues and activities relating to chemicals and wastes and ozone depleting substances (ODS) .

Concerning broad funding policies, a choice would have to be made whether to follow the GEF model, which uses the concept of Global Environmental Benefits, or the MLF model, which focuses on funding compliance through incremental costs. Entirely new approaches to funding policies could also be considered as part of this process, which may or may not combine elements of both these models.

4. The Strategic Approach for International Chemicals Management and its Quick Start Programme:

The recently developed Strategic Approach to International Chemicals Management (SAICM) sets out a comprehensive policy framework for the achievement of global chemicals management objectives, including in relation to multilateral environment agreements, and the financing of their implementation. Discussion of the need for additional financial resources and better use of existing resources to support chemicals management objectives featured prominently in the negotiation of SAICM. A full range of financial arrangements to support the broad chemicals management objectives of SAICM are set out in its Overarching Policy Strategy. These include supporting the initial capacity-building activities for the implementation of SAICM objectives under the new SAICM “Quick Start Programme” and its voluntary, time-limited trust fund.

Other financial arrangements envisaged to support implementation of SAICM include:

- Actions at the national or sub-national levels to support financing of Strategic Approach objectives;

- Enhancing industry partnerships and financial and technical participation in the implementation of Strategic Approach objectives;
- Integration of SAICM objectives into multilateral and bilateral development assistance cooperation;
- Making more effective use of and building upon existing sources of relevant global funding, such as the Global Environment Facility and the Multilateral Fund for the Implementation of the Montreal Protocol.

Mandate of the Quick Start Programme: The Quick Start Programme (QSP) is a dedicated financial mechanism of the SAICM designed to support initial capacity-building activities in developing countries and countries with economies in transition for the implementation of Strategic Approach objectives through its QSP Trust Fund. The Programme is time limited with disbursement of funds due to cease by 2013²⁴.

Governing Structure: The QSP's governing structure is comprised of the Executive Board and the Trust Fund Implementation Committee and the membership of reflects the multi-sectoral and multi-stakeholder nature of the SAICM. The QSP 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 Executive Board reports to the International Conference on Chemicals Management. The QSP Trust Fund Implementation Committee consist of representatives of participating organizations of the Inter-Organization Programme for the Sound Management of Chemicals (IOMC), and the United Nations Development Programme (UNDP).

Major Funding Policies: The QSP Trust Fund, administered by UNEP, limits its funding to enabling activities. Although it currently provides a valuable source of finance for developing countries, particularly in the areas of developing national profiles and capacity assessment for the management of chemicals, the QSP does not provide for implementation activities.

Major Activities Funded: QSP resources can fund any of the following enabling activities:

- (a) develop or update national chemical profiles and the identification of capacity;
- (b) develop and strengthen national chemicals management institutions, plans, programmes and activities to implement the Strategic Approach, building upon work conducted to implement international chemicals-related agreements and initiatives; and
- (c) undertake analysis, interagency coordination, and public participation activities directed at enabling the implementation of the Strategic Approach by integrating sound chemicals management in national strategies to inform development assistance cooperation priorities.

The SAICM QSP has proven to be a relatively fast disbursement mechanism, offering accessible resources.²⁵ The approved projects will be implemented by 74 Governments and 12 civil society organizations and will involve activities in 76 countries, including 35 least developed countries and small island developing States (SAICM/ICCM.2/5/Add.1).²⁶

Track: Upgrade the SAICM Quick Start Programme

The second session of the International Conference on Chemicals Management provided a first opportunity to evaluate the performance of the financing of SAICM. While progress under all financial arrangements was

²⁴ SAICM/ICCM.2/12.

²⁵ Over the first six rounds of applications to the Trust Fund the secretariat received 185 project proposals. Following screening for completeness and eligibility, 151 applications were appraised by the Trust Fund Implementation Committee. The Committee approved 82 projects for total funding of approximately \$16,019,986. In addition, 51 projects were recommended for further development and resubmission.

²⁶ Funds raised for the year 2007 amounted to \$7,678,000 million, exceeding the target range of \$6.3–\$6.6 million. Pledges for 2008 amounted to \$5,342,000, falling short of the target range of \$6.6–\$7.25 million. Pledges received for 2009 total \$386,000 to date. The 2009 target range is \$6.9–\$ 7.9 million. In 2006–2009, 60 per cent of donors made more than one contribution to the programme, meeting the plan's target in that regard. Two new donors made contributions to the Trust Fund in 2009 in addition to four new donors in 2007 and two in 2008. Broadening the donor base to include non governmental entities and industry has not yet been achieved

apparent from the partial reporting received,²⁷ it was clear that securing the resources envisaged under each arrangement would be an ongoing challenge. Responses to a survey of stakeholders revealed that in the initial three years of SAICM implementation considerable efforts had been made by many Governments and organizations to support the financing of SAICM objectives at the national or sub-national levels. In the case of Governments, this often involved the integration of SAICM objectives into formal planning documents. Some developed country Governments indicated that existing plans and assessments relating to chemicals management adequately reflected SAICM objectives. Many of the Governments of developing and transition economy countries that responded appeared to be relying on projects under the SAICM Quick Start Programme as a means of assessing needs and integrating SAICM objectives. The use of economic instruments to support the cost of chemicals management was reported by many of the developed country Governments that responded.

With specific reference to the Quick Start Programme, comments on the adequacy on the effectiveness of the Programme were generally positive, though some respondents noted that administrative delays had affected the commencement of projects. Some respondents were of the view that more resources were needed and that restrictions on the number of projects for which individual countries were permitted to apply should be lifted.²⁸

In reviewing the effectiveness of financial arrangements for SAICM, the International Conference on Chemicals Management at its second session (ICCM2) adopted a wide ranging resolution on financial and technical resources for implementation.²⁹ Among other things, the resolution further encouraged the mainstreaming of chemicals management in national development planning, called for adequate priority to be given to SAICM objectives in development assistance, invited the private sector and institutions such as the World Bank to strengthen their support for activities contributing to SAICM implementation, welcomed the consideration of chemicals management during the fifth Global Environment Facility replenishment process, initiated an evaluation of the Quick Start Programme and invited stakeholders to report on implementation of overall SAICM financial arrangements³⁰. SAICM financial arrangements will be further evaluated at the third session of the International Conference on Chemicals Management in 2012.

Based on evaluation of effectiveness of the Quick Start Programme, this programme or its model could be expanded to cover a wider scope of activities, including under the three chemicals and wastes related conventions.

Advantages that could be associated with this option include reliance on fast procedures, use of an existing mechanism that was recently created and could easily be upgraded, adequacy of a similar mechanism for addressing new chemicals, ad hoc issues, situations requiring rapid responses. Disadvantages could include the fact that the present time-bound nature of the QSP mechanism does not lend itself, in absence of changes in this respect, to long term durable financing.

5. Other mechanisms

With respect to new and additional sources of funding for the management of chemicals and wastes, the World Bank has supported a number of activities and is playing a number of different roles, including trustee of donor funds, financial contributor and implementing agency. For example, the World Bank administered the Canada POPs Fund that was in operation between 2000 and 2008. Canada established this Fund for POPs capacity building in developing countries and countries with economies in transition to reduce or eliminate releases of persistent organic pollutants and to assist these countries in implementing the Stockholm Convention. It was the first such specific funding commitment for POPs implementation bringing together UNEP Chemicals as principal Implementing Agency and the World Bank as Trustee (as well as implementing agency in select cases). The Fund operated on the principle of country ownership and supported projects that provide technical expertise, knowledge and access to technology needed to reduce or eliminate the presence of POPs in developing countries and CITs. The maximum amount per activity was US \$250 000. The Fund closed in December 2008. A total of 88 projects in 25 countries were funded during its operation. There is currently no indication that this fund will be revived and replenished. However, it may serve as a model for

²⁷ See meeting documents for the second session of the International Conference on Chemicals Management at www.saicm.org, including SAICM/ICCM.2/6, SAICM/ICCM.2/INF/37.

²⁸ In addition to document SAICM/ICCM.2/6 and SAICM/ICCM.2/INF/37, see the report of the Executive Board of the Quick Start Programme and supplementary information materials in documents SAICM/ICCM.2/5, SAICM/ICCM.2/5/Add.1, SAICM/ICCM/INF/30 and SAICM/ICCM/INF/30/Add.1, and information on the Quick Start Programme business plan in document SAICM/ICCM/INF/24.

²⁹ Resolution II/3 is reproduced in the report of the session, document SAICM/ICCM.2/15.

³⁰ Full details of the content of the Resolution are provide din Annex I to this document.

new efforts to bring bilateral and multilateral aid together to strengthen implementation of the chemicals conventions.

At the regional level, the World Bank plays a key role in the African Stockpiles Programme, a multi-stakeholder initiative that was approved in 2005 to clean up obsolete pesticides, prevent future toxic threats; and provide capacity building and institutional strengthening on chemicals issues. The World Bank is also an implementing agency of the Multilateral Fund for the Implementation of the Montreal Protocol and of the GEF.

Regional development banks also fund some work in the chemicals and wastes cluster. The Asian Development Bank is implementing several chemicals and wastes projects including: a partnership on POPs pesticides management for agricultural production in Central Asian countries; and a clean waste-to-energy project in China.

An example of bilateral funding is the Dutch supported project on the elimination of acute risks of obsolete pesticides in Moldova, Armenia and Georgia. Funded in part by the TMF programme (Thematische Mede Financiering) of the Netherlands Ministry of Foreign Affairs this project started in early 2005 and recognizes both the health benefits and the environmental benefits of pesticide elimination.

Besides public funds, there are also corporate and private foundations funding chemicals work. Yet, as with official development assistance, the percentage of foundation funds channelled to the chemicals agenda, and not to development and climate change, is rather small. Three foundations warrant mentioning here: the first is the Mitchell Kapor Foundation which has made POPs the focus of its grant-making. Since 2001, the Kapor Foundation supports the development of the International POPs Elimination Network (IPEN) since 2001. The second is the Ford Foundation which made a US\$2.2 million grant to Vietnam in 2006 to bring critical health services to people living with dioxin-caused long-term disabilities. The third is the Wellcome Trust, the largest charity in the UK, which funded a film project on the presence of flame retardants in breast milk. Lastly, a number of newer partnerships are emerging among donors and UN agencies that provide a model for resource mobilisation for chemicals and wastes work. One such partnership is the Global Alliance for Vaccine and Immunization (the GAVI Fund). The GAVI Fund, established in 2000 to give developing country children increased access to immunisation, is a public-private partnership with participation from donor governments of both developing and developed countries, international organizations such as the World Bank, UNICEF, WHO, and also philanthropic partners, principally the Bill and Melinda Gates Foundation. The target countries eligible to receive funds from the GAVI Fund are those whose annual per capita income is less than US\$1,000. The total number of eligible countries currently stands at 72 and represent half the world's population.

There is little disaggregated data available on the percentage of bilateral ODA (and multilateral ODA) that is directed to environmental management and especially for chemicals and wastes activities. Generally, ODA funding for environment remains low in comparison to funding available to other sectors.

The OECD has produced useful disaggregated data on the specific focus of aid assistance across different areas of environmental management are presented in a study conducted by OECD, but only with reference to Eastern Europe, Caucasus and Central Asia³¹.

Experience shows that development aid rarely focuses on chemicals and wastes management³² which are also seldom included in countries' requests. Funds for chemicals and waste activities may be more indirectly provided through funding for broader areas, such as natural resources management. In the specific case of the Australian Aid agency, one exception was the approximately USD5 million Persistent Organic Pollutants in Pacific Islands Countries project which collected over 100 tonnes of POPs and intractable pesticides from the Pacific region and destroyed them using a destruction facility in Australia. In addition, the French Development Agency has committed EUR 1 million to the Pacific region in 2009, for the management of solid and hazardous wastes. The Japanese International Cooperation Agency (JICA) is also preparing its third regional waste project in the Pacific in 2010. The EU is currently designing activities for the 10th European Development Fund and, at least for Africa, Pacific and Caribbean countries, this includes a focus on sustainable development, with a reference to the eligibility of waste projects.

³¹ Environmental Finance – Trends in Environmental Finance in Eastern Europe, Caucasus and Central Asia. EAP Task Force, OECD 2007

³² Consultations with representatives of the Australian Government, Australian Agency for International Development.

Track: Using existing multilateral / multistakeholder mechanisms to leverage the impact of individual sources of funding

Multilateral mechanisms have the advantage of allowing comprehensive needs assessment and planning of activities, and therefore channel the funds where they are needed and avoid duplication of work. On this basis, it may be beneficial for bilateral and other sources of funding that are directed to achieving the same objectives to be channelled through or targeted via such multilateral or multi stakeholder mechanisms. For instance, the MLF allows bi-lateral cooperation to be channelled through its mechanisms within certain limits. Other examples may be drawn from other funding mechanisms, especially some of the innovative mechanisms described earlier in this study.

Further analysis of this track and how it may be integrated into existing funding mechanisms is required.

D. Conclusions

The poor management of chemicals and wastes is a growing global concern; on the other hand, the chemicals and wastes sectors are important assets for society, and can be important aspects of moving towards a Green Economy, if opportunities for this are exploited. The Preliminary Desk Study contained in its Annex I a concept note on Building Blocks For Financing Chemicals Management that outlined the possible roles of various stakeholders in taking advantages of these opportunities.

The tracks presented in this desk study only intend to provide a reference analysis for continuing discussions on what might be the direction for the international community to move towards more adequate resources for the chemicals and wastes agenda. As mentioned, they are mostly complementary measures: however some choices will need to be made especially in relation to institutional arrangements. A common thread that needs to be kept in mind is the crucial role of the various stakeholders that have been identified in this desk study. Their role will change according to the different tracks and at different levels (national, regional, international) but in order to improve the funding situation of the chemicals and wastes agenda all must be involved in their relevant capacity.

V. Annex I. List of references and additional materials

- Long-term financing for implementation of the Strategic Approach to International Chemicals Management (SAICM/ICCM.2/12, 16 March 2009)
- UNDP-UNEP Partnership Initiative for the Integration of Sound Management of Chemicals (SMC) into Development Planning Processes (SAICM/ICCM.2/INF/46, 27 April 2009)
- Report of the Quick Start Programme Executive Board to the International Conference on Chemicals Management at its second session (SAICM/ICCM.2/5/Add.1, 28 April 2009)
- Report on the assessment of funding needs of Parties that are developing countries or countries with economies in transition to implement the provisions of the Convention over the period 2010–2014 (UNEP/POPs/COP.4/27, 22 January 2009)
- The GEO Year Book, 2007
- Draft GEF-5 Focal Area Strategies (GEF/R.5/Inf 3, 28 March 2009)
- UNEP Resources Mobilization Section Brief on Financing for Chemicals, prepared for the first meeting of the Consultative Process on Financing Options for Chemicals and Wastes, July 2009
- Report of the Global Environment Facility to the fourth meeting of the Conference of the Parties of the Stockholm Convention (UNEP/POPs/COP.4/25, 10 February 2009)
- UNEP-led Consultative Process on Financing Options for Chemicals and Waste Management: Thought Starter (Katharina Kummer Peiry, Executive Secretary, Secretariat of the Basel Convention and Matthias Kern, Senior Programme Officer, Secretariat of the Basel Convention)
- International Financial Mechanisms – Promoting Sustainable Development and Poverty Reduction – What makes them successful? (Katharina Kummer Peiry, 2006, in Environmental Policy and Law, 36/5)
- Building Blocks for Financing Chemicals Management. Internal thought started drafted in preparation for the Second Meeting of the Consultative Process on Financing Options for Chemicals and wastes.
- POPs, Canada, and the World Bank: Progress on Implementing the Canada POPs Trust Fund (The World Bank)
- Resource Mobilization: List of references to relevant material on resource mobilization prepared under the Basel, Rotterdam and Stockholm Conventions (UNEP/FAO/CHW/RC/POPS/JWG.2/INF/5, 6 November 2007)
- ICCA Review 2007-2008 (International Council of Chemical Associations, 2009)
- UNEP Resources Mobilization Section Brief on Financing for Chemicals, prepared for the first meeting of the Consultative Process on Financing Options for Chemicals and Wastes, July 2009

Additional studies to further consider the issues addressed in this study include:

- Resource mobilization and sustainable financing: review of the implementation of decision VIII/34 (UNEP/CHW.9/36)
- Study on financial considerations pertaining to a strategic approach to international chemicals management (SAICM/PREPCOM.3/INF/28, 20 July 2005)
- Note by the Secretariat on existing mechanisms for providing technical and financial assistance to developing countries and countries with economies in transition for environmental projects (UNEP/POPs/INC.2/INF/4, 26 November 1998)
- Study of possible options for lasting and sustainable financial mechanisms (UNEP/FAO/RC/COP.2/10)
- Study of possible options for lasting and sustainable financial mechanisms (UNEP/FAO/RC/COP.3/13, 18 July 2006)

- Note by the Secretariat on an examination of article 14 of the Basel Convention, with a view to determining the legal and institutional feasibility of appropriate and predictable financial mechanisms for the Basel Convention (UNEP/CHW.8/INF/25)
- Thought-starter paper prepared by the Government of Switzerland on financial arrangements for the implementation of the Strategic Approach (SAICM/RM/EUJ.2/3, 4 June 2007)
- Report of the preliminary assessment of the funding needs of Parties which are developing countries and countries with economies in transition to implement the provisions of the Convention over the period 2006–2010, prepared by the secretariat for the Conference of the Parties of the Stockholm Convention at its third meeting (UNEP/POPS/COP.3/19, 2 March 2007)
- DAC Report on Multilateral Aid, 2008 –OECD 2009
- Environmental Finance – Trends in Environmental Finance in Eastern Europe, Caucasus and Central Asia. EAP Task Force, OECD 2007.

VI. Annex II. Synopsis of Multilateral Environmental Agreements

The **Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal** seeks to minimize the movement of hazardous wastes across international borders, through an agreed regime of rules and procedures. The oldest of the chemicals and wastes agreements, the Basel Convention entered into force in 1992. The Convention aims to minimize the generation of hazardous wastes in terms of quantity and hazardousness, to dispose of them as close to the source of generation as possible, and to reduce the movement of hazardous wastes. Each Party is required to introduce appropriate national or domestic legislation to prevent and punish illegal traffic in hazardous and other wastes. The Convention also commits to assist developing countries to manage hazardous waste in an environmentally sound manner. Implementation of the Basel Convention is funded by voluntary contributions to the Basel Convention Technical Assistance Trust Fund. In 2006-2007, contributions amounted to USD 3.1 million. There are currently 172 parties.

The **Stockholm Convention on Persistent Organic Pollutants (POPs)** entered into force in May 2004 and aims to protect human health and the environment from chemicals that persist in the environment for long periods, become widely distributed geographically, and accumulate in the fatty tissue of humans and animals. It is evident that exposure to POPs can lead to serious health effects including cancer, birth defects, dysfunctional immune and reproductive systems, greater susceptibility to disease, and even diminished intelligence. Parties initially agreed to phase out nine of the "dirty dozen" chemicals, limit the use of DDT for malaria control, and curtail inadvertent production of dioxins and furans. The Convention recently expanded its scope when, in May 2009, Parties added nine chemicals to the Convention. The Global Environment Facility (GEF) is the principal entity of the financial mechanism of the Stockholm Convention and as of October 31, 2008, the GEF had committed US\$ 360 million to projects in the POPs focal area since adoption of the Convention in May 2001. This cumulative GEF POPs allocation had leveraged some US\$ 440 million in co-financing to bring the total value of the GEF POPs portfolio to US\$ 800 million (UNEP/POPs/COP.4/25). The Convention currently has 165 Parties.

The **Rotterdam Convention on Prior Informed Consent** came into force in 2004 and aims to promote shared responsibility and cooperative efforts among Parties in the international trade of certain hazardous chemicals to protect human health and the environment from potential harm. It aims to contribute to the environmentally sound use of those hazardous chemicals by facilitating information exchange about their characteristics, providing for a national decision-making process on their import and export and by disseminating these decisions to Parties. The Rotterdam Convention is supported by contributions from countries into the Convention's Voluntary Trust Fund and activities can be implemented if sufficient resources are received from donors. The Convention currently has 130 Parties.

At the 25th session of the UNEP Governing Council/Global Ministerial Environment Forum it was agreed to develop a **legally binding instrument on mercury**. Negotiations to develop a mercury convention are scheduled to begin in 2010, with a preparatory meeting scheduled for October 2009. The decision agrees to further international action towards a legally binding instrument on mercury, which could include both binding and voluntary approaches, together with interim activities, to reduce risks to human health and the environment. It mandated the Executive Director to convene an intergovernmental negotiating committee (INC) to commence work in 2010, with the aim of completing work by 2013. It agreed the INC is to develop a comprehensive and suitable approach to mercury, including provisions to: specify the objectives of the instrument; reduce the supply of mercury and enhance its capacity for environmentally sound storage; reduce demand in products and processes, international trade and atmospheric emissions; address mercury-containing waste; to specify arrangements for capacity building; and address compliance. The decision also requests the INC consider the need to achieve cooperation and coordination to avoid unnecessary duplication of proposed actions with provisions in other agreements.

The **Strategic Approach to International Chemicals Management (SAICM)** was adopted by the International Conference on Chemicals Management (ICCM) in 2006 as a policy framework to foster the sound management of chemicals. SAICM was developed by a multi-stakeholder and multi-sectoral Preparatory Committee and supports the achievement of the goal agreed at the 2002 Johannesburg World Summit on Sustainable Development of ensuring that, by 2020, chemicals are produced and used in ways that minimize significant adverse impacts on the environment and human health. Support for the implementation of SAICM activities is provided by the time-limited Quick Start Programme (QSP). The objective of the QSP is to "support initial enabling capacity building and implementation activities in developing countries, least developed countries, small island developing States and countries with economies in transition." The QSP has approved 82 projects for total funding of approximately US\$16,019,986.