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THE REGULATION OF INTERNATIONAL TRANSPORTS OF CHEMICALS AND WASTES

Summary of the Informal Roundtable Presentations

List of Speakers: Annex

Thursday, 24 January, 2008, Auditoire Jacques Freymond, IHEID

Organized by the Faculty of Law of the University of Geneva
Jointly with IHEID, UNCTAD, UNEP and INECE

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Introduction

The Faculty of Law of the University of Geneva, in cooperation with the Graduate Institute of International and Development Studies (IHEID), the United Nations Conference on Trade and Environment (UNCTAD), the United Nations Environment Programme (UNEP) and the International Network for Environmental Compliance and Enforcement (INECE) has organized a Conference on *Trade, the Environment and the Role of Technology Transfer*, which represented the final event of a 14-month project financed by the Réseau universitaire international de Genève (RUIG/GIAN) addressing issues of technical cooperation, trade, and the environment.¹

The concluding conference was held at IHEID on January 24, 2008. This report covers the afternoon session, chaired by Dr. Philippe Roch, which after a short introduction by Urs P. Thomas consisted primarily in a roundtable that brought together representatives from the Basel and the Stockholm Conventions, an NGO specialized on cooperation on these matters (WE 2C), the UNEP Chemicals Division and the Divisions of GEF Coordination, as well as from the Swiss Federal Office for the Environment. The public consisted primarily of academics, representatives from Permanent Missions and intergovernmental organizations, and from NGOs. As can be seen, the project has made a contribution to the cooperation and the interactions between the Faculty of Law, the Graduate Institute, intergovernmental institutions, Permanent Missions and specialized NGOs.

The purpose of the roundtable consisted in bringing together these experts in order to enable the public to arrive at an overall understanding of the work of these bodies, of the problems they have been mandated by the member states to address, and of the cooperation among them. The mandates of these conventions emphasize technology cooperation between industrialized and developing countries which are often facing some particularly serious chemical pollution problems. Furthermore, the roundtable aimed at increasing the awareness of the synergies between the conventions, UNEP chemicals, and more broadly the notion that trade and environment policy can be made mutually supportive. Thus the access to and the dissemination of technology are concerns which may promote dialogue between the trade and environmental communities.

The Conventions on transboundary movements of hazardous wastes and chemicals, i.e. the Basel Convention,² the Rotterdam Convention on Prior Informed Consent,³ and the Stockholm Convention on Persistent Organic Pollutants⁴ are all located in Geneva. This concentration of three Multilateral Environmental Agreements (MEAs) is unusual in the sense that the mandate of each one of them is distinct and separate from that of the other two, but they all operate in the same broad issue area. Thanks

¹ <http://www.ruig-gian.org/research/projects/projectlg.php?ID=136>

² Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal. Text of the Convention: <http://www.basel.int/text/con-e-rev.pdf>

³ The Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade. Text of the Convention: <http://www.pic.int/en/ConventionText/ONU-GB.pdf>

⁴ Stockholm Convention on Persistent Organic Pollutants. Text of the Convention: http://www.pops.int/documents/convtext/convtext_en.pdf

to important commonalities there are important areas where their tasks are to some extent similar. These similarities require patterns of cooperation which need to be well structured and carefully planned because of the potentially huge dangers which may result from leaks, spills and other accidents and incidents related to the international transport of hazardous substances. The three Conventions are administered by the UNEP Chemicals Programme⁵ except the Rotterdam Convention which is administered jointly by FAO and UNEP.

Lack of infrastructures with regard to the environmentally sound management of hazardous wastes and chemicals at all levels is one of the key problems for developing countries, especially the least developed countries. They generally suffer from the lack of basic equipment such as sampling instruments, analytical laboratories, protective clothing, construction machinery for the preparation of disposal sites and so forth. These difficulties of course can be explained by the lack of funding. In light of what is arguably a reality, namely that enough financing will never be available, it is particularly important to address this problem in the most efficient way. In order to maximize efficiency and effectiveness these shortcomings need to be identified as exactly as possible. Whatever funding is available can then be applied where it is most effective

Two political scientists, Sagar and VanDeveer,⁶ have studied these questions and in this research they propose the term *capacity development for the environment* (CDE) in a comprehensive sense. They have reviewed the literature on CDE and summarize it by noting that “capacity” is a central factor. They note, however, that too often the concept of capacity is treated too lightly simply as a background condition, and the range of capacities which are required to institute long-term environmental management policies tends to be overlooked. They also take issue with what they consider the wrong emphasis on implementation. Developing domestic processes to implement international agreements is one thing, more important for environmental management, they argue, is to strengthen public-sector capacity in a broader sense. In order to strengthen these “upstream” aspects of policy and regulatory frameworks they emphasize factors such as the capacity to recognize and analyze environmental problems and their causes, and the technical and managerial capacities required to implement MEAs. Furthermore, as a consequence, they view that a comprehensive, multidisciplinary and integrated approach is most effective, and that in many cases institutional models and expertise from industrialized countries cannot be easily transposed to a developing country context where the technical and scientific wherewithal is often entirely inadequate for the implementation of the duties of the parties to an MEA.

A good understanding of the dangers at stake is an essential requirement for the handling of hazardous wastes and chemicals. It requires this kind of an integrated and comprehensive approach which includes clear communications of the risks

⁵ <http://www.chem.unep.ch/chemicals/default.htm> and <http://www.unep.org/themes/chemicals/?page=home>

⁶ Ambuj D. Sagar and Stacy D. VanDeveer. 2005. Capacity Development for the Environment: Broadening the Scope. *Global Environmental Politics* 5 (3): 14-22.

involved in handling certain materials.⁷ In many cases of capacity building it would be more appropriate to speak of the transfer of technological systems; these include all “software” and “hardware” components, starting with the capacity to realize that there is indeed a problem thanks to the specific knowledge of the nature of the problem and the solutions which are available. Public authorities need to achieve a systemic understanding of toxicity issues before they are in a position to discuss and negotiate the acquisition of appropriate technical tools, as well as their installation and the required training. In light of the enormous needs in many instances the term of capacity development for the environment is very appropriate even though somewhat too broad in the context of waste and chemicals management.

UNCTAD has suggested the term *technical cooperation* which is broader than technology transfer but more focused than capacity development. Technical cooperation includes all those elements which are required as prerequisites and as accompanying measures in order to make technology transfer focused on the actual transmission of specific technologies ultimately successful. Technical cooperation as such of course would be much too wide a focus; we are limiting ourselves here to the domain of the wastes and chemicals conventions. An important point is that technical cooperation differs from technical assistance in its focus on the implication if several organizations involved in education and training activities, i.e. on inter-agency cooperation with the objective of maximizing synergies among the participating partner organizations. The UN system is geared toward these kinds of cooperation patterns, numerous projects are designed and implemented by more than one UN organization or by UN and other organizations -- a cooperation which, as one can easily imagine, does not always proceed easily and smoothly. Inter-organizational problems may be due to the fact that these organizations are used to operate with considerable autonomy, especially if they raise their own funding. Generally speaking, a coordination mandate can best be fulfilled if the coordinating mandate goes hand in hand with the provision of additional funding.

Technical cooperation does by far not always depend on patented or on otherwise highly technical kinds of knowledge. As Lynn Mytelka emphasizes, very often so-called *tacit knowledge* would deserve more attention.⁸ This concept, introduced by Giovanni Dosi,⁹ arguably plays a crucial role in technical cooperation with regard to hazardous waste and chemicals because of the importance of the awareness of

⁷ For an up to date and in depth discussion of risk management with regard to Chemicals see: Chapman, Anne. 2007. *Democratizing Technology - Risk, Responsibility and the Regulation of Chemicals*. London: Earthscan, 181 p.

⁸ Mytelka, Lynn. 2007. *Technology Transfer Issues in Environmental Goods and Services - An Illustrative Analysis of Sectors Relevant to Air Pollution and Renewable Energy*. Geneva: ICTSD Issue Paper No. 6, pp. 3 and 26. http://www.ictsd.org/pubs/ictsd_series/env/2007-04-L.Mytelka.pdf

⁹ Giovanni Dosi. 1988. The Nature of the Innovative Process, in *Technical Change and Economic Theory*, edited by Giovanni Dosi, Christopher Freeman, Richard Nelson, Gerald Silverberg and Luc Soete. London: Pinter Publishers, 656 p.

Dosi defines tacit knowledge as follows:

Some aspects of knowledge are well articulated and can be codified into drawings and plans, written up in books and taught in schools. Others are largely tacit, learned in the course of doing an activity such as research or operating a machine. Transfer of tacit knowledge takes place through training and apprenticeship.

See Mytelka *op. cit.* footnote 4, referring to Dosi, 1988.

workers and local residents of toxicity which is often invisible. Such awareness which may be generated through brief and informal discussion may prevent serious health problems or even fatalities.

In the same context, brief and informal discussions may prevent serious health problems or even fatalities by disseminating empirical knowledge and awareness. Last but not least, an increasingly important role is being played by various industries in the various sub-domains of the management of hazardous wastes and chemicals. In some instances industry cooperation with regulatory agencies and convention Secretariats has been constructive and benefiting from their international linkages, in-depth technological capacities and networks of professionals, research institutions and specialized NGOs.

Cooperation among private enterprises in the field of environmental management is increasingly characterized in some regions by the emergence of globalized waste management “templates,” especially in South East Asia. Such templates attempt to harmonize regulatory frameworks as well as technological solutions to similar problems through public-private partnerships (PPPs) and the construction of modern, integrated disposal facilities.¹⁰ The large Western market leaders are in a position to supply an integrated package of financing, technological know-how and experience in the construction of waste treatment and disposal installations. The handling of hazardous wastes and chemicals requires this kind of an integrated and comprehensive approach which includes a good understanding of the dangers at stake based on a clear communication of the risks involved in handling certain materials. It is often difficult to balance the economic potential of recycling metals which have a commercial value on one hand and health threats to workers and inhabitants due to heavy metals and other toxic substances on the other hand. In many cases generally very dangerous working conditions are made worse by run-offs from these sites into the groundwater. Appalling examples in various sites especially in Asia have been repeatedly documented photographically in the media, e.g. workers dismantling electronic equipment and ship wrecks under unprotected exposure to toxic chemicals and heavy metals.¹¹

The transfer of a technological system includes all related “software” and “hardware” elements, starting with the capacity to realize that there is indeed a problem thanks to the specific knowledge of the nature of the problem and the solutions which are available. Only when this set of information has been ascertained does it make sense for public authorities to discuss and negotiate the acquisition of appropriate technical tools, as well as their installation and the required training. In light of the enormous needs in many instances the term of capacity development for the environment is very appropriate even though somewhat too broad for our purposes, UNCTAD’s term *technical cooperation* which is broader than technology transfer but more focused than capacity development is more appropriate here.

¹⁰ Kate O’Neill, 2001. The Changing Nature of Global Waste Management for the 21st Century: A Mixed Blessing? *Global Environmental Politics* 1 (1): 77-98, 90.

¹¹ See e.g. (1) Caroline Veter. Hiver 2005. Nos ordinateurs à l’origine d’une contamination toxique en Asie. *Greenpeace* 17 (68) : 6-7. (2) Philippe de Rougemont. 2004. Aresenic et vieux natels. *Le Courrier* 9.11.2004, p. 7.

Technical cooperation includes all those elements which are required as prerequisites and as accompanying measures in order to make technology transfer focused on the actual transmission of specific technologies ultimately successful. The three Conventions emphasize this need for strengthening both technical and institutional capacity. Thus they have organized numerous training and awareness-raising workshops, they have introduced methodological tools for environmentally sound management, they have published numerous legal, technical and scientific guidelines and training manuals, and they continue to do so in ways which reflect the strength of each of them: The Basel Convention has established Regional Centers,¹² the Rotterdam Convention which has a bicephalous Secretariat shared between FAO in Rome and UNEP in Geneva emphasizes agricultural pesticide management in conjunction with FAO,¹³ and the Stockholm Convention has a special status thanks to its access to funding from the Global Environment Facility.¹⁴ Unfortunately, as other MEAs and in general intergovernmental organizations involved in sustainable development activities, these Conventions are woefully underfunded for the realization of the mandate given to them by their parties.

ROUNDTABLE PRESENTATIONS

The Basel Convention

Pierre Portas

Former Deputy Executive Secretary, Secretariat of the Basel Convention
President of WE 2C (Waste - Environment Cooperation Centre)

As a result of economic growth and wasteful consumption patterns artificially accelerated through planned obsolescence, the waste streams everywhere have continued to increase very strongly, especially with regards to electrical and electronic products. We have now a world-wide waste crisis, and global trade is now accompanied by a global trade in wastes. In spite of countless studies, principles and voluntary guidelines, we are clearly unsuccessful in decoupling economic growth from waste generation. Where safeguards are weak or inexistent, waste streams follow the path of least resistance. Countries lagging behind in their economic and social development and people surviving in poverty are those most vulnerable and affected by the adverse effects of wastes on health, the quality of life, and the environment. Furthermore, we are seeing a shift in geopolitical influence which is shifting to some extent from industrialized to emerging developing economies. China for instance may have less strict regulations, but if it tightens them up then waste streams may be redirected to other countries such as Vietnam or Myanmar etc., a trend which makes consensus and environmental governance ever more difficult. The negotiators of MEAs are forced to adapt to these divergences in order to reach decisions based on consensus, which often causes difficult and lengthy bargaining. In short, the globalization of trade has made trade in waste more complex.

¹² <http://www.basel.int/centers/centers.html>

¹³ See for instance <http://www.fao.org/docrep/008/ae947e/ae947e0k.htm>

¹⁴ http://www.gefweb.org/interior.aspx?id=246&ekmense1=c580fa7b_48_134_btnlink

The practices used in the disassembly of electronic components and of ships, especially in various locations in Asia, are deleterious for the environment and at the same time unhealthy, even dangerous for humans. Nevertheless, private operators complain vigorously that they have to respect too many regulations and that they are disadvantaged compared to other sites where the rules are less strict or they are not implemented. In light of these divergences between domestic regulations, the Basel Convention is not yet equipped to address many recycling issues but it does provide certain minimum safety standards which help in eliminating the worst operators. Through the promotion of the “waste to resources” paradigm, it makes a very important contribution in amending our wasteful lifestyle. In order to create a level playing field, MEAs have the potential of establishing the core of a system aiming at transparency, predictability and sustainability in the medium and long term. The difficulties of making such a system WTO-compatible are exacerbated by regional trade and environmental agreements and bilateral trade agreements which have not been negotiated with the objective of instituting harmonized rules and practices.

Policymakers attempting to regulate international transports of wastes and chemicals are facing contradictory constraints between the liberalization of trade and the demand for more safeguards in wastes and chemicals. MEA negotiators have been successful in crafting international environmental norms but these are implemented in a very unequal manner. In the short term, we need to support efforts by countries to promote and improve the recycling, treatment and disposal of wastes in ways which respect both human beings and the environment. To this end certification systems which monitor environmental management procedures and traceability are important, and these represent a key task for the Basel Convention. In the medium and long run, the emphasis needs to be placed on the international consolidation and reinforcement of the environmental legal architecture controlling transboundary movements of wastes, especially hazardous wastes, and in implementing effective incentives to reduce their generation and accumulation and to ensure their safe disposal.

Vincent Jugault

Programme Officer, Secretariat of the Basel Convention

The important changes in the trading flows and patterns of hazardous waste which occurred in the last two decades would need to be taken into consideration in the context of the implementation of the main provisions of the Basel Convention. Such changes for instance in the North-South waste flows go beyond the originally designed mandates of the Convention which was initiated by concerns over unregulated and in some instances outright criminal hazardous wastes exports from industrialized countries to the developing world. One observes today an increasing trend of hazardous wastes, such as POPs as waste, being shipped from developing to developed countries for final disposal. Also, shipments of valuable hazardous waste such as used car batteries tend to follow a regional pattern in order to achieve environmentally sound recovery of resources (lead). The Basel Convention is being requested to adapt to such changes through the facilitation of the transfer of technologies and processes that should be environmentally sound, economically viable and socially acceptable.

The Basel Convention stands primarily on two legs: the control regime for transboundary movements of hazardous wastes and other wastes, and the development and implementation of the environmentally sound management of such wastes. These fundamental elements of the convention are mutually supportive. One of the most important achievements of the Convention consists in the strengthening of the normative framework concerning environmentally sound management of waste through policing tools and standards. These initiatives are prerequisites for the putting in place of a level playing field regarding technology transfer in a multilateral context. The Convention has also established new institutions such as fourteen regional centers for training and technology transfer which aim is to assist developing countries in achieving the goals of the convention, in particular through the setting up of innovative tools such as private-public partnerships with industry and with NGOs. Their objective lies in facilitating technology transfer at conditions which are appropriate for developing countries. These efforts serve long-term objectives; much remains to be done yet.

In the case of POPs, the transfer of 'soft technologies' to developing countries aiming at the isolation of these dangerous substances rather than the much more costly elimination is implemented in cooperation with the Stockholm Convention. There is potentially an important market for environmentally sound technologies for hazardous waste, the Basel Convention is in advanced discussions with industry groups trying to create the conditions for the transfer of some of these, in particular in relation to POPs and lead recovery, in developing countries. It is hoped that these instances of collaboration between the Basel and the Stockholm Convention, in the case of PCBs, will become showcases of the cooperation between MEAs.

The Rotterdam and the Stockholm Conventions

María Cristina Cárdenas-Fischer

Policy advisor, Secretariat of the Stockholm Convention

The more recent Rotterdam (1998) and Stockholm (2001) Conventions have been able to benefit from the experience gained with the considerably older Basel Convention (1989). Both very much emphasize the conjunction of public health and the environment. The Rotterdam Convention of *Prior Informed Consent* is primarily a tool for making sound decisions regarding a developing country's permission to accept shipments of certain hazardous chemicals. Its primary purpose is to raise the awareness of decision-makers about the potential dangers posed by such shipments. It covers a broad range of pesticides and other hazardous chemicals contrary to the Stockholm Convention which is focused on just twelve persistent organic pollutants (POCs).

The Stockholm Convention has the strongest technology transfer emphasis among the three wastes and chemicals conventions which explains its achievement of having been able to qualify for financing by the Global Environment Facility, a joint funding body of the World Bank, UNDP and UNEP. Like the Basel Convention, it also has regional centers. The Convention's legal framework is now implemented and functional. The Convention's technology transfer mandate, however, is not really working yet; these activities will be implemented through the regional centers.

The three Conferences of the Parties have set up an Ad Hoc Joint Working Group (AHJWG) with the objective of preparing joint recommendations on enhanced cooperation and coordination among the three conventions for submission to the three COPs. It had two meetings in 2007, and a third one in 2008 will conclude this preparatory process. The first result of these negotiations consists in the creation of the position of a joint Executive Secretary for the Rotterdam and Stockholm Conventions. This decision has in fact been taken already a few years ago but it has been implemented only recently with the appointment of Dr. Donald Cooper. Implementing the decision of a joint head for the two Secretariats has turned out to be a complex and innovative task which is now achieved.

Dr. David Piper

Task Manager, POPs, UNEP Division of GEF Coordination

Technology transfer comprises the stepwise upgrading of technical production capacity in response to changing market and economic conditions – the need to increase output or to constrain the costs of labour and raw materials inputs and waste outputs. In recent decades, we have seen the migration of production capacity to lower-cost regimes in industrializing developing countries but even here, pressure on raw material inputs is prompting technology transfer as a response to the need for demand-side management of raw materials.

The chemicals and waste conventions require or seek to promote technology transfer to the best available techniques - making use of the best available processes and production methods, and to best environmental practices. In parallel, initiatives such as Cleaner Production seek to demonstrate the economic advantages of demand-side management of raw materials inputs and waste outputs. Promoting technology transfer to best available techniques through, for example, Cleaner Production is hampered in regions where raw materials and environmental services are not properly costed or are artificially subsidized.

Reducing health and environmental risks from the manufacture and use of hazardous substances is not only related to production and waste management issues or to their direct use. Chemicals and other hazardous substances occur as minor constituents or 'accidental' contaminants in a wide range of products.¹⁵

¹⁵ Some examples:

DDT is still used legally in some countries not only for combating malaria but also as an intermediate chemical in the production of pesticides that remain legally available. Production standards vary considerably and poor manufacturing control and outdated technologies can result in inadequate transformation of the DDT intermediate and thus its incorporation, at significant levels, in the final product.

PCBs – dense, heavily-chlorinated organic oils, were produced from the late 1920's until the 1980's. Health problems amongst workers handling them were recognised soon after their introduction but risks were undervalued for many years by vested interests. Their functional properties made them the oil of choice in electrical equipment – in particular transformers and capacitors, operating under difficult conditions (cold, heat, etc.). Such equipment has a useful life of 30-40 years and is generally not withdrawn whilst it remains in good working order. Properly managed and maintained, the equipment does not release significant amounts of the PCB oils it contains and so presents only a relatively small risk. For these reasons, the Stockholm Convention allows such equipment to continue

The control, orderly removal and destruction of persistent toxins such as these are, of course, the objectives of the chemicals and waste MEAs. All take a precautionary approach recognising that environmental remediation and addressing serious health impacts are thousands of times more expensive than the introduction of best available techniques, including technology transfer and best management practises, followed by proper removal and environmentally-sound disposal.

The move to globally-recognised 'best technologies' as detailed, for example, in the 'Guidelines on Best Available Techniques and Provisional Guidance on Best Environmental Practices' published by the Secretariat of the Stockholm Convention, is not likely to be achieved as a single technology transfer step. The Stockholm Convention recognizes that the concepts of Best Available Techniques and Best Environmental Practices (typically referred to together as BAT/BEP) are related to local environmental and economic conditions and so to local investment decision-making.

It is often difficult to determine the factors which best stimulate such an environment-related upgrading and technology transfer. Well-meaning but ill-considered initiatives may well have undesirable consequences, particularly for developing countries where regulatory and monitoring frameworks may be ill-equipped and under-resourced.¹⁶

Generally speaking, successful practices are likely to involve non-threatening, "no-blame" and participatory approaches encouraging all influential stakeholders to recognize the value of working together to solve a common problem.

Barriers to technology transfer for environmentally sound waste management are numerous. On the one hand, local owners of such wastes may be unwilling to take up their corporate responsibilities for the wastes or are unable to pay the additional costs, particularly if opportunities arise for waste management via the informal sector where, for example, metal reclamation represents a low-cost, high profit operation. On the other hand, developing country markets may not represent viable opportunities for the industry because the quantities to be treated are too small, the waste streams too diverse or the technology not sufficiently scalable to compete with efficient and highly-competitive facilities in developed countries.

In conclusion, there are considerable opportunities for technology transfer to enhance the implementation of the chemicals and waste conventions. These opportunities arise all around the life-cycle of production, trade, use and disposal of the commodity. However, interventions need to be carefully tailored to particular situations and to engage those with responsibilities for the materials in a participatory and non-threatening manner that results in the development of mutually acceptable control mechanisms and sustainable funding. In this last regard, the mainstreaming

in service until 2025 but requires removal and environmentally sound destruction no later than 2028. However, not all such equipment is well managed and maintained during and after its useful life. Furthermore, there is an active market for second-hand transformers that have some working life remaining.

¹⁶ Some examples:

Increasing regulation-based control on PCB equipment owners, particularly smaller industries, might well cause the accelerated, uncontrolled disposal of equipment, and so increased environmental releases, or the sale and export of equipment under falsified shipment certificates.

Similarly, early moves in developed countries to restrict or ban the use of certain products or substances has typically resulted in increased trade of those commodities to developing countries that do not have the means to control them.

of commonly-agreed chemical and waste priorities into development planning together with initiatives to enhance corporate responsibility in the private-sector investment community provide access both to the financial mechanisms of the Conventions and to direct investment finance.

Hamoudi Shubber

Associate Programme Officer, Quick Start Programme (QSP)

Strategic Approach to International Chemicals Management (SAICM)

SAICM is an international policy framework supporting the achievement of the goal agreed at the 2002 Johannesburg World Summit on Sustainable Development of ensuring that, by the year 2020, chemicals are produced and used in ways that minimize significant adverse impacts on the environment and human health. It has been developed by a multi-stakeholder Preparatory Committee, co-convened by UNEP, the Intergovernmental Forum on Chemical Safety (IFCS) and the Inter-Organization Programme for the Sound Management of Chemicals (IOMC) and endorsed by the 2002 World Summit on Sustainable Development (Johannesburg) and by the 2005 World Summit (New York). Its strengths are its broad scope, its multi-stakeholder and multi-sectoral character, the endorsement from the highest political levels and the formal recognition by intergovernmental organization's governing bodies.

SAICM emphasizes the sound management of chemicals as an issue of sustainable development. The Strategic Approach is neither a convention nor an organization, and it does not replace any existing institutions or mechanisms. After three sessions of the Preparatory Committee in Bangkok (2003), Nairobi (2004) and Vienna (2005), SAICM was adopted by the International Conference on Chemicals Management (ICCM) at its first session, held in Dubai, 4-6 February 2006. SAICM comprises three core texts:

- **The Dubai Declaration**, which expresses the commitment to SAICM by Ministers, heads of delegation and representatives of civil society and the private sector.
- **The Overarching Policy Strategy**, which sets out the scope of SAICM, the needs it addresses and objectives for risk reduction, knowledge and information, governance, capacity-building and technical cooperation and illegal international traffic, as well as underlying principles and financial and institutional arrangements. The ICCM adopted the Overarching Policy Strategy which together with the Dubai Declaration constitutes a firm commitment to SAICM and its implementation.
- **A Global Plan of Action**, which sets out proposed "work areas and activities" for implementation of the Strategic Approach. The ICCM recommended the use and further development of the Global Plan of Action as a working tool and guidance document.

The ICCM decided that the SAICM secretariat would be co-located with the UNEP chemicals and wastes cluster in Geneva, and that UNEP and WHO would have lead roles in the secretariat in their respective areas of expertise. The implementation of SAICM involves all stakeholders on an equal basis, including industrialized and developing countries, industry, and NGOs. The Strategic Approach serves as an

umbrella for related activities and as a catalyst for long-term improvements. The SAICM Quick Start Programme aims to support initial capacity building activities for the implementation of SAICM. The QSP includes a UNEP-administered trust fund which, as of July 2008 supports 57 projects in 63 countries, amounting to \$10 million.

The Overarching Policy Strategy and the Global Plan of Action define objectives and activities addressing the illegal traffic of hazardous chemicals and wastes (including CFCs). They emphasize among other aspects an improvement of the breadth and the quality of information on these activities. SAICM also covers the area of chemicals transport including by supporting the implementation of the Basel and the Stockholm Conventions with an emphasis on preventing trafficking of toxic, hazardous, banned and restricted chemicals and the strengthening of the implementation of relevant MEAs.

The SAICM framework facilitates cooperation in voluntary, innovative and flexible arrangements between a number of organizations such as the Participating Organizations of the IOMC¹⁷, UNDP, the secretariats of the Basel, Rotterdam and Stockholm Conventions, industry and NGO groups. Essentially it can catalyze action by involving all stakeholders with common objectives on a voluntary basis.

The second session of the ICCM (ICCM-2) is scheduled to take place May 11-14, 2009, back-to-back with the World Health Assembly. The Conference will undertake the first review of the implementation of SAICM. An Open-ended Legal and Technical Working Group (OELTWG) will be convened in October 2008 to assist in the preparations of ICCM-2.

While chemicals play an essential economic role and contribute to improved living standards, potential costs of chemicals management, such as potential adverse impacts on the environment and human health, also need to be recognized. The diversity and potential severity of such impacts make sound chemicals management a key cross-cutting issue for sustainable development. Unfortunately, chemicals and wastes issues are not very visible in the media and lack public support.

Dr. jur. Franz X. Perrez

Head, Global Affairs Section, Swiss Federal Office for the Environment (FOEN) Bern

The wastes and chemicals conventions and the WTO - while both pursuing the goal of sustainable development - obviously reflect a different spirit, or a different philosophy. Several manifestations of this basic difference can be mentioned:

- In the first case the environment and public health are the focus of the whole convention, whereas in the second case the environment and health are treated as exceptions.
- While the wastes and chemicals conventions try to promote sustainable development through limiting and restricting trade, the trade regime pursues sustainable development through promoting trade.

¹⁷ The Participating Organizations of the IOMC are FAO, ILO, OECD, UNEP, UNIDO, UNITAR and WHO.

- Promoting innovation through regulation vs. emphasizing innovation through trade (however, one could even argue that a free trade regime is not promoting but impeding innovation by not allowing for different treatment based on process and production methods).
- Promoting technology support vs. banning subsidies and protecting intellectual property rights
- Science as driver for legislation vs. science as a prerequisite for justifying an exception
- Compliance mechanism: weak -- used essentially just as a support to help countries to correct their non-compliance vs. strong -- used as punishment through the Dispute Settlement Body

Further important differences can be observed in the governance of these MEAs and the WTO: In the first case the technical expertise is focused on environmental issues, in the second one on trade issues. Furthermore, in the MEAs the administration, the program implementation, and the capacity building functions are fragmented, whereas the WTO is characterized by a coherent and unified structure at all levels including an efficient and effective dispute settlement mechanism. For all these reasons which reflect an institutional imbalance, the wastes and chemicals conventions cannot muster the strength necessary for acting as an equivalent player. As a result of this imbalance there is a double risk that first of all differences of perspectives in environmental negotiation are dealt with by the WTO negotiators instead of the MEA negotiators. We can see this e.g. in the Doha Round's Environmental Goods negotiations where the WTO negotiators start to define what an **environmental** good is - a task that normally should be fulfilled by the environmental specialists. The second risk is that subsequently disputes are brought to the WTO Dispute Settlement Body and not to the MEA's mechanisms.

Further important differences can be observed in the governance of these MEAs and the WTO: In the first case the technical expertise is focused on environmental issues, in the second one on trade issues. Furthermore, in the MEAs the administration, the program implementation, and the capacity building functions are fragmented, whereas the WTO is characterized by a coherent and unified structure at all levels including an efficient and effective dispute settlement mechanism. For all these reasons which reflect an institutional imbalance, the wastes and chemicals conventions cannot muster the strength necessary for acting as an equivalent player. As a result of this imbalance there is a double risk that first of all differences of perspectives in environmental negotiation are dealt with by the WTO negotiators instead of the MEA negotiators. We can see this e.g. in the Doha Round's Environmental Goods negotiations where the pressures for extensive lists and the protection of intellectual property rights by the industrialize countries, as well as the problem of dual/multiple use goods cause developing countries' negotiators to question the environmental seriousness of their industrialized country colleagues. The second risk is that subsequently disputes are brought to the WTO Dispute Settlement Body and not to the MEA's mechanisms.

In spite of these introductory remarks, these conventions and the WTO are mutually supportive, they can be considered as a classical case of MEAs that include trade provisions that do not create a problem under the WTO perspective: there is no

hierarchy, they show deference for each other's domain of application, and they are all practicing a multilateral approach. The three MEAs support the WTO regime by providing for a level playing field.

Even though there are no *a priori* conflicts between these MEAs and the WTO, there are some specific exceptions to this observation.

- PIC Convention: one country refused to add asbestos to the PIC list
- SAICM: one country refused to include in the Global Plan of Action the option to ban asbestos
- SAICM: one country wanted to include a savings clause in favor of the trade regime

These exceptions don't reflect a conflict between the trade and the environment regime, what happened here is that certain countries are using the WTO as a pretext to advance specific national interests or priorities.

To conclude, there is no legal incompatibility between MEAs and the WTO agreements but the differences of philosophy underlying these agreements cause problems with regard to technology transfer, technology innovation, and a strong unified governance. MEAs and the WTO Agreement are not equal partners as the governance structure of the MEAs is much weaker. What is needed therefore is to strengthen these institutional structures which are too much fragmented! One way to strengthen the chemicals and wastes MEAs is to further deepen the cooperation and synergies, e.g. by bringing the three secretariats further together, having one joint head for the three secretariats, ensuring that the work of the three conventions builds on each other and complements each other.

Concluding Remarks

Anne Petitpierre-Sauvain
Professor at the Faculty of Law, University of Geneva

To address the issue of technology transfer within the framework of the difficult relation between trade and the environment implies tackling the equally puzzling question of the role of technology transfer in the implementation of the multilateral environmental agreements. How fundamental is the issue? Do actual obstacles to technology transfer prevent the efficient implementation of some MEAs? What are exactly the "expectations" of MEAs as far as transfers of technology are concerned?

Reading quickly through the MEAs, particularly those which were discussed in this final conference of our RUIG/GIAN project, we find many references to the need for technology transfer:

- as instruments of *cooperation* (intended to achieve sound management of problems such as waste disposal, to promote best available technologies where required by the convention, to link the commitments of parties with different levels of development),

- as a means to provide the preliminary *information* to solve problems of common concern (hazardous waste, substances depleting the ozone layer, protecting biodiversity),
- as a *direct commitment of the parties* (such as under the CBD, the Montreal Protocol or the Cartagena Protocol) or as a specific contribution to a commonly defined goal (such as under the Global Program of Action for the Protection of the Marine Environment from Land based Activities).

Technology transfer is thus certainly *relevant* for the implementation of MEAs. Yet, we do not always perceive to what extent such transfers are subject to obstacles that the rules of international trade could contribute to remove. The question has been indirectly included in the negotiations on the liberalization of “environmental goods”, as a result of the Doha Declaration (requiring States to address “*the relationship between existing WTO rules and specific trade obligations set out in multilateral environmental agreements*”). This led to the well known debate about liberalizing “environmental goods” as just “goods”, subject to taxes, duties or other trade barrier under the GATT which can be removed (so-called “list approach”) or considering that environmental goods can only be considered through “environmental projects” which should be promoted as such, or at least through some addition to the mere listing of privileged goods (“list plus”). The latter slightly twists the approach as it would bring the issue not only under the GATT, but also under the rules of services or investments, outside the requirements of the Doha Declaration.

From the point of view of the implementation of MEAs which require technology transfer, it appears that just lifting obstacles to a more or less lengthy catalogue of goods is not sufficient to ensure that the right technology is going to the right place. But to find a more adequate solution implies questioning the nature of the obstacles which presently exist to technology transfers for environmental purposes. They are not so much the result of specific rules of international trade as a consequence of different approaches and policies. Very few examples of specific projects implying transfer of technology which failed as a result of trade rules have been identified, but even where such problems exist, the solutions provided by the WTO negotiations do not seem to bring the adequate answer. To some extent this is the result of the very nature of the problems addressed by the trade negotiators: promoting technology transfer through trade needs promoting specific *systems* rather than goods (for example plants, not products). As a consequence, many requests are made to “go beyond” WTO negotiations, which means also reducing expectations about the impact of the Doha Round on this issue. At the same time some links should be established between the world of trade rules and the one of MEAs, such as defining environmental goods and services (EGS) with reference to their function in MEA implementation. EGS could thus be the goods and services that actually serve to implement MEAs. At the same time, it appears more and more clearly that EGS negotiations are not the only place where the relation between trade and promotion of environmentally sound technology should be considered. Discussions about PPM, agriculture or subsidies should not ignore the issue.

The key word to these efforts is *mutual supportiveness* of international agreements. Applying consequently this concept is the only answer to the complexity of the relation between international commitments often based on similar basic philosophies (such as *sustainable development*, a goal common to WTO and MEA), but with substantially different interests at stake.

The need to link MEA and trade issues is not the only call for more interaction between international agreements. The complex and evolving problems connected with waste and chemicals are perhaps the most striking example of how the implementation of conventions should move away from considering each one in isolation. Coming to the end of our project on technology transfer, trade and environment, we see how large a field for investigation remains open in this context. If we consider that, in addition to mutual supportiveness, systemic approaches are necessary to make the best use of the opportunities offered by the development of environment friendly technologies, the example of the three "chemical" conventions (Basel, Rotterdam and Stockholm) is striking. Their cooperation, as well as the role played in this field by UNEP (through its SAICM initiative and its GEF coordination division), show how technology can serve to the solution of environmental problems, but needs to be put in the right context and supported by an accurate analysis of the problems. Lawyers have probably not devoted enough time to analyse the result achieved in this field, inaccurately considered as purely "technical".

The importance taken by *environmentally sound management* as a framework for the technical solutions that those conventions require confirms the limits of a purely "trade" approach. To address the problems of waste disposal, of handling dangerous chemicals or accepting new chemicals, it is not sufficient to provide environmentally sound technology. Being, perhaps, less laden with political debate than WTO negotiations, cooperation of this type is left to address the actual issues, though not necessarily to solve the problems. Cooperation, more than negotiation, will allow finding solutions. This implies that due regard is taken by each convention of the content and the goals of others. Mutual supportiveness is about making use of other negotiators' wisdom rather than mistrusting it. The experiences discussed by the representatives of the "chemicals and waste" area of environmental law are a promising path to follow by other sectors. Then, developing trade in EGS will certainly be one contribution to improving the quality of the environment, but provided it takes due account of what is considered as environmentally sound in other areas, as there cannot be a "trade" conception of environment friendly technology, as opposed to an "ecologic" conception or the same.

Annex: Speakers' List of the Roundtable

Chair: Dr. sc. nat. Philippe Roch, Independent Consultant, former Director of the Swiss Federal Office for the Environment (FOEN/OFEV), Berne

- Urs P. Thomas, PhD, research associate, Faculty of Law: 14.40 - 14.55 h
The Geneva-based Wastes and Chemicals Conventions, an Introduction
- **ROUNDTABLE ON THE REGULATION OF INTERNATIONAL TRANSPORTS OF HAZARDOUS WASTES AND CHEMICALS: 15.00 - 16.00 h**
 - * Basel Convention
 - + Pierre Portas, President of WE 2C
(Waste - Environment Cooperation Centre)
 - + Vincent Jugault, Programme Officer
Secretariat of the Basel Convention
 - * María Cristina Cárdenas-Fischer, Policy advisor
Secretariat of the Stockholm Convention
 - * Dr. David Piper, Task Manager, POPs Enabling Activities
UNEP Division of GEF Coordination
 - * Hamoudi Shubber, SAICM Quick Start Program Officer
UNEP Chemicals
 - * Dr. jur. Franz Xaver Perrez; Head, Global Affairs Section,
Swiss Federal Office for the Environment (FOEN/OFEV), Berne
- **Coffee Break: 16.00 - 16.20 h**
- **Discussant:**
 - Dr. jur. Katharina Kummer Peiry, Executive Secretary
UNEP-Secretariat of the Basel Convention
- Discussion Period: 16.20 - 17.20 h**
- **Conclusion / Wrap-up of the RUIG Project: 17.20 - 17.30, followed by an apéro**
Prof. Anne Petitpierre-Sauvain, Faculty of Law, University of Geneva