Feasibility study on developing a system for monitoring transboundary movement of ozone depleting substances

Note by the Secretariat

1. In its decision XVII/16, the Seventeenth Meeting of the Parties to the Montreal Protocol approved the terms of reference for a study on the feasibility of developing a system of monitoring the transboundary movement of controlled ozone-depleting substances between the Parties and requested the Ozone Secretariat to undertake such a study, to initiate the necessary tenders and to present the results to the Eighteenth Meeting of the Parties.

2. In accordance with the above decision, the Secretariat engaged a consultant who has carried out the requested study and produced a report. The annex to the present note contains the Executive Summary of the report. It is presented as submitted by the consultant and has not been formally edited by the Secretariat.

3. The full report from the consultant will be circulated at a later date and is now available on the Ozone Secretariat website (http://ozone.unep.org/Meeting_Documents/mop/18mop/ODS-Tracking-September-2006-1.pdf).
Executive summary of the feasibility study on developing a system for monitoring the transboundary movement of controlled ozone-depleting substances between the Parties

This document summarizes the report which presents a feasibility study for developing systems for monitoring transboundary movements of controlled ozone-depleting substances (ODS) between the Parties to the Montreal Protocol. The report has been produced according to the terms of reference agreed by the Parties in Decision XVII/16. The bulk of the work of the study has been a series of in-depth interviews with government officials and industry personnel, designed to analyse the systems they currently use and to understand their views on potential workable options. The study itself has been dispatched to the Parties as a background document for the 18th Meeting of the Parties. Chapter and section designations in the summary which follows refer to relevant chapters and sections of the report.

Background (Chapter Two)

The main purpose of the study is to propose options for monitoring systems that would be useful in reducing illegal trade in ODS. Concern over such illegal trade, mainly in CFCs and in mixtures and products containing CFCs, has been growing since it was first detected in the mid 1990s. Originally a problem only in non-Article 5 countries as they neared total phase-out of CFCs, illegal trade is now widespread throughout the developing world. Estimates suggest that illegal trade is currently of the magnitude of 10–20 per cent of legitimate trade. This represents an illegal trade in CFCs of approximately 7,000–14,000 tonnes a year, with an approximate value of between US$25 million – 60 million.

Quite apart from the problem of illegal trade, tracking the movement of goods in legitimate trade often proves difficult enough. Yet the monitoring of trade is essential to ensure compliance with the Montreal Protocol, which defines ‘consumption’ as ‘production plus imports minus exports’. Accurate figures for imports and exports are therefore necessary for a Party to know whether or not it is adhering to its phase-out schedules.

The scale of trade is an important factor in developing any system for monitoring it. Using trade data from 2004, for CFCs, of the 132 countries that reported consumption of these chemicals (and do not produce), it is estimated that on average sixteen containers per year would be expected to be imported. Almost fifty countries received less than one container of CFCs a year, and around 100 countries received less than one container of CFCs a month on average. Only four countries (Indonesia, Nigeria, Iran and Brazil), which together account for more than 35 per cent of global consumption, received more than 100 containers of CFCs a year.

Monitoring systems and where they fail (Chapters Three and Four)

There are many possible components and variations of ‘systems for monitoring transboundary movement’ or ‘tracking mechanisms’. Import and export licensing schemes (national or international), information exchange systems, labelling and marking regulations, and customs codes, all have important roles to play in making possible the monitoring of movements of ODS across national boundaries. All can also fail to perform adequately, because of problems with their design or implementation, leading to unregulated, unreported or misreported trade; other weaknesses are connected to the general problems of monitoring international trade.

Data reporting is essential to the effective functioning of the Montreal Protocol. Yet there are question marks over the quality of the original data collected by Parties and reported to the Ozone Secretariat. In 2004, for example, the TEAP’s Basic Domestic Needs Task Force report identified significant weaknesses in data reporting by Parties. A cross-checking exercise, in 2004, of the import and export data reported to the Secretariat, revealed discrepancies between aggregate imports and exports of an average of 5 per cent, but varying up to 74 per cent in one case; CFCs, on average, varied by almost 13 per cent.
Naming and labelling practices for ODS in international trade can vary widely, so customs officers and ozone officers may find it difficult to identify exactly what is being imported into their country. The scope for deliberate mislabelling is also extensive. Similarly, customs codes applying to ODS, and particularly to mixtures, are complex and subject to mistakes in identifying and recording imports and exports. Analysis of import data shows instances of repeated misdescriptions and incorrect coding of imports.

National licensing systems are the key instrument used by Parties to the Montreal Protocol in regulating exports and imports, yet very little assessment has ever been made of the effectiveness of these systems, and whether they are operating as intended. The only analyses which have been carried out of export and import data for pairs of countries indicate major discrepancies between import and export figures – for example, discrepancies of up to 2,000 tonnes of CFCs a year between trading partners in the Asia–Pacific region. There are many reasons why licensing systems may fail to perform as intended:

- Licensing systems vary considerably between countries; there is no uniform system, as there is in some other international agreements. Some categories of ODS may often be omitted entirely, despite the requirements of the Montreal Amendment.
- Many countries lack export licensing systems, also despite the requirements of the Montreal Amendment.
- The operation of the systems may be hindered by poor communication between agencies, primarily those responsible for regulating ODS and customs.
- Communication between agencies in different countries is even more difficult; in particular, customs departments rarely, if ever, check whether what they record as imports from a given country is the same as is recorded as exports by the same country.

Regulating transit trade may also cause difficulties; unlike some international agreements, the Montreal Protocol does not control transit trade. Although trans-shipment (which need not be reported) should be treated differently from import and re-export (which should be reported as two separate trades), the evidence suggests that often the two are confused. Free trade zones may also provide a route for ODS to be traded outside any form of monitoring or regulation. The status of overseas territories of non-Article 5 Parties, which are sometimes major transit points, is also often confusing.

Since all these problems can be exhibited even during normal, legal, trade, where there is no effort to mislead the authorities, it is hardly surprising that similar procedures can be employed as part of illegal trade. Five main sets of methods can be used to move products illegally: evasion, mislabelling, concealment, disguise, and diversion. All have been observed in various locations in recent years.

Lessons from other international systems (Chapter Five)

The monitoring and control of transboundary movements is an issue faced by many other international agreements and systems. Nine agreements, and one set of industry voluntary measures, are analysed here, and lessons drawn for the Montreal Protocol:

- Effective licensing systems. Most of the agreements analysed operate licensing systems that work effectively with relatively low levels of bureaucracy, even though they may cover substantially greater numbers of shipments than does the Montreal Protocol.
- Uniform licensing system. Most agreements operate a single system amongst all their Parties, with, usually, a uniform design of the license or permit.
- Monitoring and recording of exports. The Montreal Protocol is unusual amongst international agreements with licensing systems in not always monitoring exports.
- Requirements for transit licenses. Some agreements require countries of transit to require the presence of permits or certificates.
- Cross-checking. Cross-checking of import and export licenses and data against each other is an important part of verifying that the system is working properly, and some agreements carry this out systematically.
Central role of secretariat. A number of the agreements’ secretariats, or related bodies, play a central coordinating role in collecting copies of all of the permits or licenses issued and used. This facilitates the transfer of information between countries, and offers at least the potential for central analysis and cross-checking of data.

Independent verification. Some agreements have built in external means of data or license verification.

Review processes. Some agreements incorporate a regular review process of the adequacy and operation of national regulations, in order to ensure that the system performs robustly.

PIC systems. Several of the agreements analysed here explicitly require some kind of prior informed consent to the transboundary movement of controlled products. These systems appear to work well in practice.

Role of industry. Industry sometimes has a role to play as an integral part of the licensing regime, or in running voluntary certification systems alongside government measures.

Effective collaboration with customs authorities is essential to the effective monitoring of transboundary movements of ODS. The WCO’s Regional Intelligence Liaison Offices (RILOs) have a key role to play in monitoring transboundary trade and investigating illegal trade. The RILO Asia–Pacific’s ‘Project Sky-Hole-Patching’, which aims at establishing a monitoring and notification system to keep track of the movement of suspicious shipments of ODS in the Asia–Pacific region, is an important initiative and should serve as a valuable model for other regions.

Options (Chapters Six and Seven)

These final two chapters set out possible options which could be adopted by the Parties to the Montreal Protocol. Chapter Six contains individual components, most of which could be adopted individually. Chapter Seven considers how a number of them can be put together into coherent packages and implemented over the short, medium and long term. They are summarised below.

Immediate actions

This first set of activities includes those that can be carried out in the very short term, largely using existing structures and without any need for significant increases in resources or amendments of the Protocol. It includes some steps that are already beginning to be taken.

Full implementation of the new reporting requirement for destinations for all exports of all ODS; analysis of problems this reveals, and consideration of the best way in which to relay the information between Parties (for example, batched, or shipment by shipment). (Section 6.1.2.)

Better provision of information on names, codes and labelling systems, particularly for mixtures containing ODS. (Section 6.2.1.)

Encouragement for the development of internal (company-specific) tracking systems, for example for cylinders. (Section 6.2.1.)

Full implementation of the Montreal Amendment requirement for licensing systems to cover all categories of ODS, including mixtures and used ODS. (Section 6.3.1.)

Full implementation of the Montreal Amendment requirement for the inclusion of export licenses in all licensing systems. (Section 6.3.2.)

Development of systems for cross-checking all export and import data per country and per shipment – effectively, full implementation of the terms of Decision IX/8. (Section 6.3.3.)

Greater use of regional ozone officer and customs networks to raise awareness and spread examples of best practice in licensing systems. (Section 6.3.4.)

Effective communication at national level in operating licensing systems, including promotion of memorandums of understanding between key agencies. (Section 6.3.5.)
• The adoption of clear definitions of the terms ‘trans-shipment’ and ‘re-export’. (Section 6.4.1.)

• Clarification of the status of free trade zones. (Section 6.4.2.)

Medium-term options

This second set of activities includes those that can be carried out in the slightly longer term – though whose implementation could start soon. It would require some expenditure of additional resources, primarily in staff time within the larger trading countries and the Secretariat. It builds on and develops from all the activities set out above.

• Review of data collection and data reporting systems, aiming to identify and eliminate discrepancies and to provide better reporting in particular of ODS in mixtures. This includes in-depth studies of data reporting in particular high-risk regions. (Section 6.1.1.)

• Encouragement for customs investigations of illegal trade hotspots and supply chains, based on the ‘Operation Sky-Hole Patching’ model. (Section 6.1.1.)

• Further development of systems for cross-checking all export and import data per country and per shipment, using a central clearing-house mechanism. (Sections 6.1.2 and 6.3.3.)

• Encouragement for sharing of industry trade data with the Secretariat or other responsible bodies, subject to protection of commercially sensitive information. (Section 6.1.3.)

• Feasibility study on the costs and implications of a new centralised trade data collection and analysis system, drawing on multiple sources and allowing more targeted analysis of trade flows. (Section 6.1.4.)

• Encouragement for standardisation of industry naming and labelling conventions on cylinders. (See Section 6.2.1.)

• Encouragement for national bans on disposable canisters in regions where this option is appropriate (i.e. densely populated areas with good transport networks). (Section 6.2.2.)

• Encouragement for systems designed to ‘blacklist’ companies known to be trading illegally, and/or ‘whitelist’ companies known to be trading legally and responsibly. (Section 6.2.2.)

• Encouragement for the elaboration of detailed customs codes sub-headings at national levels, and collection of information on the extent to which this actually happens. (Section 6.2.3.)

• Clarification of the essential minimum elements of licensing systems, endorsed by Parties through a decision, plus enhanced promotion of best practice in comprehensive licensing systems and training. (Section 6.3.4.)

• Evaluation of how licensing systems are actually working, identifying and attempting to eliminate major data discrepancies. (Section 6.3.6.)

• Analysis of the extent of transit trade (trans-shipment and import/re-export) in high-risk regions. (Section 6.4.1.)

• Analysis of the extent to which overseas territories of non-Article 5 Parties in regions predominantly composed of Article 5 Parties affect trade in ODS. (Section 6.4.3.)

• Encouragement for an ‘informal’ PIC system in high-risk regions such as South and South-East Asia, and/or focused on the largest producers and consuming countries. (Section 6.5.1.)
Long-term options

This final set of activities includes those that could only be carried out in the longer term, over a period of a few years. (They are not, therefore, particularly relevant to CFCs, because of the 2010 phase-out date.) They would require decisions of the Parties and in one case an amendment to the Protocol, and, probably additional national legislation. In most cases they are dependent on effective implementation of the steps outlined above in the previous two sections; a PIC system, for example, cannot work unless effective licensing systems are already in place.

- Further efforts to improve data collection and reporting, including independent verification of data in the most severe cases of discrepancies. (Section 6.1.1.)
- Implementation of a new centralised trade data collection and analysis system, drawing on multiple sources and allowing more targeted analysis of trade flows. (Section 6.1.4.)
- Inclusion of transit movements (trans-shipments) in licensing systems, possibly through amending Article 4B of the Protocol. (Section 6.4.1.)
- Adoption of a formal PIC system (which would require amendment of the Protocol), which must therefore include export and transit licenses, and ideally a uniform licensing system, and effective communications between countries. This would also imply enhancement of the Secretariat in playing a central clearing-house role. (Sections 6.5.2 and 6.3.4.)