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Persistent organic pollutants, country strategy development: Experience and lessons learned under the Montreal Protocol

Note by the secretariat

The secretariat has the honour to transmit to the Intergovernmental Negotiating Committee, in the annex to the present note, information provided by the Montreal Protocol Operations Unit of the World Bank. The information is circulated as submitted by the Montreal Protocol Operations Unit of the World Bank and has not been formally edited.

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INFORMATION PAPER

PERSISTENT ORGANIC POLLUTANTS COUNTRY STRATEGY DEVELOPMENT: EXPERIENCES AND LESSONS LEARNED UNDER THE MONTREAL PROTOCOL

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POPs Country Strategy Development: Experiences and Lessons Learned Under the Montreal Protocol

INTRODUCTION

Countries may soon be embarking on work under a new global environmental convention on persistent organic pollutants (POPs). As such, many will be undertaking the development of strategies for phasing out and/or controlling POPs in their countries or regions. To implement the Montreal Protocol, most developing countries underwent a similar strategy development process. This paper aims to share some of the lessons learned from the experience of developing country programs (as they are called under the Montreal Protocol) and to provide some guidance in the process of country strategy development under a future POPs convention.

First and foremost, when considering the formulation of country strategies it is important to remember that the development is an iterative/evolving process. Even the best developed country strategy will not uncover and address all issues (e.g., more accurate information on baseline data, development of new alternatives, development of new phaseout/control approaches). These and other issues may only develop over the life of a program, and time and experience will enhance the process. It is essential that strategies include a system to monitor and evaluate implementation progress. Country strategies or programs should be flexible enough to allow incorporation of findings and experience gained from the early phases of programs in order to improve the effectiveness of the strategies or programs over time. A series of country strategies and action plans are therefore essential. Moreover, country strategies may have to be revised as parties to the convention may decide to expand the list of controlled substances.

Secondly, while it is important that every country has an individual country strategy, the level of details can and should vary from large countries to smaller countries. As seen from the Montreal Protocol experience, consumption of ozone depleting substances (ODSs) in smaller countries is often very fragmented, and control measures to curb the demand on ODS can bear a high degree of similarity among smaller countries. This may also apply to consumption and emission patterns for POPs in small POP-consuming countries. In addition, as the effects of POP emissions often transport to other neighboring countries, actions in one country can promote or undermine efforts undertaken in the neighboring countries. As a starting point, a regional approach may prove to be a more useful and cost-effective approach to developing strategies for some smaller countries. Regional trading block organizations are important players in these types of activities. Activities to enhance in-country expertise required for managing production and emission reduction should receive high priority. The institutional framework is essential in carrying out a successful program. As pointed out above, the development of country strategies should be an iterative/evolving process, reflecting enhanced in-country capacity. Increased experience in the refinement of country strategies to meet the specific needs of each country can be made over time.

The structure of this paper follows the basic information necessary for development of a country program to phaseout ODSs (baseline consumption and production data, existing usage, choices of technology and policy options for phasing out ODSs, phaseout schedules and action plans) and which appears to have a strong bearing on the development of a POPs strategy as well. This paper will often refer to the terms "country program and country strategy." It may be useful to point out the distinction between these two terms. Under the Montreal Protocol context, the term "country program (CP)" is used for describing an overall program for a country to meet its

obligations or phaseout schedules. Country programs will include country strategies, country assessment and commitments, phaseout schedules, and action plans with a list of activities to meet all the goals and objectives described within the country programs.

BASELINE DATA

The problems in collecting accurate baseline data to serve as the basis for development of a CP are extremely important to consider in that they significantly impact the final design of the national action plan and the ability of the country to track the progress being made toward the goals laid out in the CP and its obligations under the convention as a whole. Experience gained from implementing ODS phaseout activities in developing countries showed that, in many cases, baseline consumption was severely underestimated, and a phenomenon that might be called the "200 percent phaseout" occurred. This phenomenon occurs when the amount of ODS consumption reported by a country to have been eliminated over a number of years adds up to more than twice the baseline consumption figure reported in the CP. It usually results from a large number of users being overlooked in the initial baseline data gathering exercise.

The lessons learned through gathering of baseline data for CPs prepared under the Montreal Protocol should be useful as countries embark on the preparation of Country Strategies for POPs. However, much will depend on the specific data required to prepare such a Country Strategy. Since the primary purpose of a Country Strategy would be to describe in detail the methods to be employed by the country to achieve the required obligations of the POPs Convention, the data needed to prepare a useful document will be determined largely by the final mandates of the Convention. Based on the on-going discussions at the INC, it is expected that the following types of baseline data will be required in the POPs' Country Strategies. These will include, but will not necessarily be limited to (for each POP):

- Annual production in most recent years (by producer).
- Annual imports in most recent years (including sources).
- Annual exports in most recent years (including destination).
- Existing stocks (to aid in determining whether future demand could be met after production and imports are halted).
- Annual use by application in most recent years (to the extent that specific applications are targeted or exempted under the Convention), including an explanation of the reasons for this use.

Some of the more common reasons why compiling accurate consumption data often proved to be difficult as shown through MP implementation experience are:

Harmonized Customs Code System is not adequate for monitoring production, imports, and exports on a chemical-by-chemical basis – Most countries' customs agencies maintain official records of imports and exports of products, including chemicals, entering and leaving the country. However, rarely is this data compiled on a chemical-by-chemical basis. Moreover, chemicals may be imported or exported under various trade names for which customs officers may not be aware that there is a control. There is also the case where chemicals exported in small containers are not subject to any chemical control procedures. It is recognized by Parties of the Montreal Protocol that ODS consumption data cannot rely solely on the custom data. A chemical-by-chemical based licensing system needs to be developed in order to keep track of import and export of each controlled substance under the Protocol. Production data is easier to obtain as there are only a handful of producers in a particular country and production data can therefore be collected directly from the producers.

Preliminary work carried out by UNEP on how to collect data on a country-by-country basis for POPs production, imports, exports, stocks, and emissions, revealed that very little information is available, particularly in developing countries. This could be attributed to the same constraints mentioned above, i.e., that the existing customs system alone may not be an appropriate means for monitoring imports and exports of POPs. A new monitoring or licensing system designed specifically for POPs may be needed. Moreover, because POPs are being sold under different trade names, it may be useful that a list of trade names of these chemicals be compiled and provided to all custom agents, and government and industrial representatives. In many cases, industry may not be aware that the chemical that it is using is a controlled substance. Custom agents may also require specific training in order to become more conversant with the issues related to POPs.

Substantial illegal activity relating to import of ODSs and POPs – While many customs agencies do gather data on imports and exports of chemicals including ODS, these data are for only those shipments which pass through legitimate ports where customs personnel are stationed. Where illegal activities take place, regional cooperation can help. For example, in the southeast asian region where most supply of ODS goes through Singapore, efforts have been made to correlate the data of importing countries in the region with the export data from Singapore. At present, it appears that no illegal activity with regard to imports and exports of POPs is taking place. However, consideration should be made whether a similar regional approach mentioned above could be applied to POPs.

Conflicting data available from different organizations – ODS consumption data included in CPs often comes from a variety of sources including the records of the customs agency, the records of the national environmental agency or the records of some other government regulatory agency. In many cases, however, the data from one agency will conflict with the data from another. It is, therefore, extremely important that during the preparation of country programs, all government agencies involved in controlling these chemicals - ODSs or POPs - should review existing regulations. If possible, these regulations may need to be amended to ensure that future data reporting will be accurate and consistent. If a new licensing system is required, these agencies should participate in developing this new system and agree on roles and responsibilities of various agencies. Roles and responsibilities of various agencies concerned should be well coordinated to ensure effective implementation of the new system. Implementation of the new

licensing system may involve various government authorities. It is, however, important that there should be only one government organization designated for reporting this data to the POPs Convention.

Size and stage of development of a country – In most cases, collection of accurate ODS consumption data will be more difficult for a large country such as China than for a smaller country such as Costa Rica. These greater difficulties are primarily the result of each of the difficulties described above manifesting themselves more prominently in countries with a larger geographic area or a country like Indonesia where there are more than 1,000 islands, a larger government bureaucracy, and a diversity of sectors and more consumption overall. In addition to size, the stage of development of the country can greatly impact the availability and quality of data. For example, in countries where customs and other related functions have been computerized, data are more likely to be available and accurate than in countries where all recordkeeping is still paper-based.

Participation of chemical and equipment suppliers in developing inventories of **ODSs and POPs** – In many countries, Montreal Protocol CPs were developed without effective involvement of chemical and equipment suppliers. The approach used for collecting information on existing installation of ODS based-equipment was designed primarily with end-users in mind. Moreover, most ODSs were sold under different trade names and sometimes these substances were brought into the country as part of a larger project. Many ODS users may not realize that they were using ODSs. In most cases, questionnaires sent to end-users were not completed. In addition, government officials might not have complete knowledge of where ODSs were being used in the countries. Surveys of existing use of ODSs as well as inventories did not cover all major users in the country. It is, therefore, important that when developing CPs for POPs, a data collection strategy should also focus on the chemical and equipment suppliers as they normally have a good database of their clients readily available. They can also help governments to develop a list of trade names of POPs being sold and a list of existing POP usage in the countries. Data collection should also be linked to an information campaign to inform users and suppliers of the POPs issue.

EXISTING USAGE

CPs prepared under the Montreal Protocol consist of a number of key components, the most important of which are ODS consumption data/profile and an Action Plan for reducing and ultimately eliminating this consumption to meet the country's obligations under the Protocol. Both the data and the Action Plan are typically organized on a sectoral level to address at least the following major sectors: household refrigeration, commercial refrigeration, air conditioning, aerosols, foams, solvent cleaning, fire protection, and ODS production (if any).

Data for Montreal Protocol CPs were presented on a sectoral level so that the impacts of different actions in specific sectors on the demand for ODS in those sectors could be accurately evaluated. While the overall goal of a country under the Montreal Protocol is to eliminate production and net imports, use of ODS is still allowed (with stockpiled materials or recycled materials). As a result, it became necessary to identify which particular sectors had a high usage of ODS (meaning greater demand for the chemical), why this usage was high, and how the usage could be reduced so that demand would be sufficiently reduced as well. Therefore, activities included in the CP's Action Plan are usually developed on a sector-by-sector basis, with some general activities identified that apply to all sectors.

The difficulties associated with assembling accurate data on existing ODS-use on a sectoral basis within a country are even more substantial and resource intensive than those described previously for gathering baseline consumption data. This is because such data has, in most cases, simply never been collected in the past. Therefore, it is often seen that there are usually no existing records to start from and data gatherers must use creative methods for assembling a new record that describes ODS-use on a sector-by-sector basis. As a result, ODS-use data is often compiled based on the results of industry surveys, information from industry associations, sales data from chemical distributors, and interviews with technical experts working in the country. Estimates compiled by different organizations using different methods often vary significantly.

In the case of POPs, similar requirements for data to be collected on a sectoral basis may be desirable, but it may not be practical, at least at the beginning of the process when knowledge and expertise on POPs management in developing countries are still limited. While there are three general sectoral categories into which the 12 POPs fall (pesticides, industrial chemicals, and unintentional byproducts), there are a large number of subsectors within each of these categories which would prove difficult to classify. This is especially true for pesticides, where individual POPs often have many different uses.

It may prove to be too ambitious to collect information on all POP usage when developing the first country strategy. Therefore, to the extent that the controls included in the Convention are for individual chemicals and not for specific uses, it may be more appropriate to gather POPs use data only on a chemical-by-chemical basis in order to prepare a first POPs Country Strategy. Along with this data, it is useful to prepare a descriptive "Use Profile," which would present the details of the most common uses of each POP, without necessarily presenting the specific quantities associated with each POP. The data could then be considered along with the "Use Profile" for each POP, and a detailed "Action Plan" could be developed that would allow the country to meet its obligations under the POPs Convention. However, with the understanding that the development of country strategies is an iterative/evolving process (revision of country strategies could be made once every two or three years), efforts should be made during the implementation of the country program to gain more understanding of how much POPs are being used in various subsectors. With more experience in dealing with POPs, this use profile could be reviewed. More potential POP applications can be put into this list. This information would enable governments to improve their questionnaires for the next round of the POP user surveys. For areas where POPs are not currently used, it may be prudent for countries to adopt a preventive measure at the early stage to preempt POPs to ever be used.

INFORMATION ON POLICY AND TECHNOLOGY OPTIONS

In developing a Country Strategy to phase out ODSs, the most important factors dictating the final strategy and action plan were, among others, the availability and maturity of alternatives, and their costs. In the early 1990s when the first Country Programs were developed, information pertaining to availability and effectiveness of ODS alternatives was limited. In addition, many alternatives had just recently been introduced to the market. It was, therefore, extremely difficult to determine accurate costs of ODS phaseout.

Panels of experts and technical options committees established under the Montreal Protocol have contributed significantly to the better understanding of science, economics and environmental impact of ozone layer depletion as well as the understanding of the state of technology development. Reports produced by these bodies were used extensively by

governments of developing countries in formulating their country programs and ODS phaseout schedules. These reports are revised over time to incorporate new findings and new technological developments which took place at a pace faster than was originally anticipated.

While key information required for developing a country strategy was still missing or incomplete at the time that the Protocol became effective, developing countries were urged to submit their comprehensive country programs as soon as possible. In fact, submission of country programs was made as a condition for funding of certain ODS phaseout-related activities in developing countries. In response to this requirement, ODS phaseout schedules proposed in the country programs were often either too conservative or too optimistic. As a result of incompleted information about the availability and efficacy of alternative technology and their costs, governments' commitment to follow through with the proposed action plans and phaseout strategies was tied to an unrealistic estimate of funding to be provided by the Multilateral Fund.

While Parties to the Protocol emphasized the importance of having those expert panel and technical options committee reports reviewed over time to reflect the rapid development of alternative technology, it was unfortunate that the need for revision of country programs and strategies did not receive the same level of attention.

When developing country programs and action plans, it is important that adequate information pertaining to the environmental impact of the POPs listed in the convention be made available to governments of developing countries. Information related to availability and efficacy of various commercially available technologies as well as the latest information on the development of new emerging technologies should be compiled and disseminated to involved countries. It may be appropriate to have a mechanism established to ensure that this information will be updated continuously. Expert bodies in charge of compiling this information may consist of experts from both developed and developing countries.

Guidelines for formulating country programs may require a statement of commitment from governments on the phaseout schedule or the obligations stipulated in the POPs treaty. Overall strategies and policy support to be undertaken in order to achieve or fulfill those obligations should be laid out in the country program. Developing countries might find information on existing policies and strategies that have been applied successfully in other countries useful as a guide for developing their POP strategies. This type of information has proven to be very useful to ODS officers in developing countries in formulating their strategies and regulations to ban the use of ODSs.

At the present time, it is believed that many of the first twelve POPs pesticides may no longer be produced, but that some use may remain from existing stockpiles. Nevertheless, more attention is now being paid by developed and developing country governments to the control and monitoring of POPs production and imports. One of the main drivers behind this increased attention is the fact that several international environmental treaties already directly involve many of the first 12 POPs to be addressed by the POPs Convention. Therefore, increased monitoring and control may have been implemented in many countries to meet their obligations under other treaties such as: the Basel Convention on the Control of Transboundary Shipments of Hazardous Wastes and Their Disposal; the Rotterdam Convention on the Prior Informed Consent (PIC) Procedure for Certain Hazardous Chemicals in International Commerce; and the Convention for the Protection of the Marine Environment of the North-East Atlantic ("OSPAR Convention"). Success and lessons learned to date should be systematically compiled and disseminated to all Party countries. Proposed interventions within an action plan, both for investment and non-investment activities, should take into account availability of alternative technology as well as economic costs and benefits to the local and global environment. Along with these proposed interventions, it would be useful to include information on what types of policy support need to be put in place to ensure sustainability of each intervention. Impact of such interventions to the overall goals for meeting the phaseout schedule or the obligations of the POPs treaty should be estimated. Prioritization of these proposed activities, in light of the agreed phaseout schedule or the government's commitment to reduce production, consumption and emission of POPs, should be made in order to minimize the overall economic burden to the country. To assist developing countries to develop their country programs as well as to prioritize activities required to meet their objectives and obligations, a handbook on how to prepare POPs country programs, similar to the handbook on "Country Program for phasing out ODS" prepared by UNEP, might prove to be very useful.

In prioritizing activities to be included in national action plans, it might be useful if information related to the costs and benefits (to the local and global environment as well as local socio-economic development) of certain interventions that have been successfully implemented in other countries could be made available to key decision-makers. While local costs and benefits vary from one region to another, or from one country to another, this information could, however, help decision-makers to assess whether any demonstration projects should be undertaken in their countries before making a full-scale investment.

While it is important that governments must commit to phaseout or emission reduction schedules, action plans describing activities and strategies to meet those commitments should be allowed to be revised in order to take advantage of lessons learned during the implementation of the program as well as to respond to changes in global priorities as well as technology. Again, this emphasizes the need for having country programs or action plans revised over time.

If it is decided by the INC that a financial mechanism should be established and utilized to provide assistance to developing countries in complying with control measures to be adopted by Parties of the future POPs treaty, the objective of such a financial mechanism should be made clear to all developing countries, i.e., whether it is to assist developing countries in meeting obligations under the Convention or to promote early phaseout or elimination of emissions and production of POPs. The objective of the financial mechanism would definitely have influence on the speed of reduction or elimination of emissions and production of POPs in developing countries.

PHASEOUT/CONTROL SCHEDULES

Lessons learned from phasing out methyl bromide (widely used in soil fumigation and commodity fumigation which is one of several ozone depleting substances controlled under the Montreal Protocol) is that once farmers realized there were other low-cost alternatives to methyl bromide and understood that run-off of methyl bromide could contaminate the local water supply, they willingly agreed to move away from methyl bromide use. Therefore, as mentioned in the previous section, when dealing with POPs, local benefits to environment and socio-economic development, should be taken into account when prioritizing activities proposed in Action Plans. These benefits might offset the costs of minimizing or eliminating the use of POPs. These types of activities should, therefore, receive high priority as they could be a most cost-effective option in achieving significant reduction of POPs emissions. Moreover, as these activities contribute to the enhancement of the local environment and render benefits to the local community and economy, the success of these activities might assist in increasing public support of the program

which is especially important at the beginning of the program. Other interventions that may cause short-term adverse impact to national socio-economic development, might be taken up, if possible, at a later stage or could have a longer implementation timeframe. However, it is important to note that individual choices should be made under the overall framework of the convention.

Including strategies to build-up NGOs and private sector involvement/buy-in has proven to be a very effective tool in phasing out ODSs in many developing countries. For example, several aerosol producers in India decided to phase out the use of CFCs with their own resources after they learned about the environmental impact of ozone layer depletion. Multinational companies in Thailand voluntarily pledged to phase out the use of CFCs on the same schedule as their parent companies in developed countries. This was achieved through the awareness program jointly organized by United States Environmental Protection Agency, Ministry of International Trade and Industry (Japan) and Department of Industrial Works (Thailand). This resulted in significant and rapid reduction of ODSs used in the solvent cleaning sector as well as the early phaseout of CFCs in the domestic refrigeration sector in Thailand.

Efforts should also be made to identify areas for early and easy action. For example, one of the strategies used by developing countries to prevent increasing use of methyl bromide was to ban the use of this chemical before it was ever introduced. Similar strategies might be easily applied to certain POPs.

Although the requirements of the POPs Convention are not vet known, current production and usage patterns for certain POPs may make it possible to initiate early action to ensure an ongoing long-term limit to such production and usage. As mentioned earlier, a number of the POPs to be addressed by the Convention are believed to no longer be produced in most countries. Similarly, use of some POPs is reported by many countries to be zero, even though there are no regulations in place limiting such use. This situation provides national governments with the unique opportunity to formally restrict or ban the production, import, export, or use of certain POPs without having any noticeable impact on the country (due to the fact that there is currently no production, import, export, or use). In essence, the national governments would simply be making the existing voluntary ban formal through the issuance of a regulation or similar instrument. As an example, of the 41 countries that reported production data for the UNEP Chemicals Global POPs Characterization, none reported recent production of either aldrin or heptachlor. At the same time, none of the 37 countries providing import data to the study reported recent imports of either of these chemicals. Therefore, it is likely that the majority of countries could take early formal action to put in place bans on both the production and import of aldrin and heptachlor, while having minimal consequences due to the fact that there appears to be little, if any, current usage.

Phaseout/control schedules should be flexible enough to create opportunities for realistic Action Plans based on country priorities. Consideration should be made to policies and phaseout/control schedules adopted in other countries within the region as well. Lessons learned from the implementation of the Montreal Protocol clearly demonstrated that countries which adopted a slower phaseout schedule are vulnerable to dumping of outdated technology and equipment from industrial sectors in countries that have more aggressive phaseout schedules. At the same time, countries wishing to take early actions were impeded by lack of actions in their neighboring countries or by constraints for prior regional trading agreements. In addition, regional cooperation could prove to be very useful and economical when countries have to deal with existing stocks of unused chemicals. Experience gained from managing the phaseout of halons, which are very important fire fighting agents with no known alternatives for certain applications, in the Southeast Asia region shows that it is not economically viable for each country to have a physical halon bank to collect and recycle unused halons. This region is considering the possibility of having the Malaysian Halon Bank to serve as their regional bank where the surplus of halons could be sent for recycling at this facility. If there is any need for halons for essential usage, countries could have access to halons stored in this bank.

INTEGRATED ACTION PLAN

Based on experiences from implementing the Montreal Protocol projects, it is obvious that investment projects alone are not sufficient to attain significant reduction of ODS consumption. Non-investment projects including training, networking, institutional strengthening as well as policy and regulatory related activities have proven equally important to ensuring sustainable reduction of ODSs. Timing of investment and non-investment activities is key to effectiveness and success of the overall country program implementation. For example, training of mobile air-conditioning service shops were included as an integral part of the strategy to phase out CFC in this sector. Otherwise, conversion of the production process of mobile airconditioning systems to HFC-134a at the manufacturers might not have been sustainable as service shops were not capable to handle this new refrigerant. It has been reported that in some countries, many non-CFC mobile air-conditioning systems were retrofitted back to CFC as it was the only technology that service shops were familiar with. A workshop to train customs officials to monitor import and export of ODSs and products containing these chemicals was undertaken when regulations or a legal framework to control and monitor these chemicals and products had already been or were about to be in place. Otherwise, the knowledge gained from this workshop would never have been put into use. Another example was when a country received training for its customs officers based on proposed future regulations. The regulations took two years to get through Parliament. By the time, the regulations were in place, the customs officers had to be retrained.

Approaches or strategies to be developed to minimize consumption and production of POPs should be designed to ensure effective and equitable use of available resources. As in the Montreal Protocol, funding priority has been given to projects with low costs per kg of ODS phased out. To ensure cost-effectiveness and equity among various users in the countries, innovative strategies may be needed. Experience from the Montreal Protocol shows that an ODS phaseout strategy based only on a project-by-project phaseout could create difficulties in ODS phaseout in smaller enterprises where costs of phaseout are naturally higher than larger enterprises. In many cases, the volume of ODS consumption relates directly to the size of the enterprises. For larger enterprises, phaseout costs per kg of ODS seem to be lower due to economies of scale. These large enterprises, many of them multinational, usually have less difficulty in accessing the resources and new technology required for conversion. The situation in smaller enterprises is generally the opposite. Innovative financing schemes can be explored to ensure that all parties, either large or small, receive adequate funding to undertake the necessary actions to minimize their dependence on controlled substances.

The project-by-project approach to phasing out ODS also presented difficulties in terms of timing the issuance of policies or regulations to ban the use of controlled chemicals in certain applications. Since not all enterprises or users converted at the same time, those that took an early phaseout approach found themselves in a disadvantaged position, particularly when costs of new alternatives were higher. To ensure sustainability of country program implementation and effective and equitable use of financial and technical assistance that may be available in the future under the POPs Convention, a sector approach similar to those developed by the World Bank to

phase out CFC and halon production and CFC-use in mobile air-conditioning in China could be explored and, if possible, replicated.

Moreover, financing modalities should not be limited to grants. Other options such as revolving funds, concessional/contingent loans, and commercial loans, could also be considered. In Turkey, the government decided that funding from the Multilateral Fund to assist major domestic refrigerator manufacturers (most are large enterprises), should not be given as a full grant. While funding provided from the Multilateral Fund to Turkey is in the form of grant, the government set up a revolving fund from which the domestic refrigerator manufacturers borrow funds for conversion and then return part of the funds once the project is complete. Resources in the revolving fund are then used for financing other non-ODS conversion projects in the country.

Phasing out controlled substances may render benefits to more than one global environmental issue. Strategies to manage the reduction of emission and production of POPs should attempt to create synergies among various global environmental issues. For example, an investment project in Thailand which will replace existing CFC chillers with high-efficiency non-CFC chillers will result in phasing out of CFCs as well as minimize emissions of carbon dioxide. As this project renders benefits to both the Montreal Protocol and Climate Change Convention, funding for this project is being provided by both the Multilateral Fund and Global Environment Facility.

Based on lessons learned from the Montreal Protocol, it can be concluded that the preparation of comprehensive country programs and action plans should employ a holistic approach. Investment and non-investment activities as well as policies and regulatory measures have to be inter-related to ensure sustainability of the program and the effective and equitable use of limited resources. Various financing modalities should be explored in order to enhance the effective use of limited resources.
