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INTERGOVERNMENTAL NEGOTIATING COMMITTEE FOR AN
INTERNATIONAL LEGALLY BINDING INSTRUMENT
FOR IMPLEMENTING INTERNATIONAL ACTION ON
CERTAIN PERSISTENT ORGANIC POLLUTANTS

Third session

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REPORT BY THE SECRETARIAT ON INTER-SESSIONAL WORK
REQUESTED BY THE COMMITTEE

Possible capacity-building activities and their associated costs under
the international legally binding instrument for implementing
international action on certain persistent organic pollutants:
a preliminary review, first revision

Note by the secretariat

1. In response to the request by the Intergovernmental Negotiating Committee at its first session, the secretariat prepared a preliminary review of possible capacity-building activities and their associated costs under the international legally binding instrument for implementing international action on certain persistent organic pollutants (POPs), contained in the annex to document UNEP/POPS/INC.2/INF/3, for consideration by the Committee at its second session. The document was not intended to provide an exhaustive list of such activities, nor were the costs included meant to be more than tentative initial estimates.

* UNEP/POPS/INC.3/1.

3. At the second session of the Committee, the secretariat's review was discussed at length by the Implementation Aspects Group. On the basis of proposals for modifications submitted by the Group and new information received by the secretariat, its content has been revised and is submitted in the annex to the present note, for consideration by the Committee at its third session. Those modifications include:

(a) Recasting table 1, to give a clear indication of the frequency with which each activity needed to be undertaken and the geographic applicability of each activity. Similar information has been added to the detailed description of each activity in the body of the report;

(b) Expanding activity area 3, to include both establishing a POPs focal unit and supporting a POPs focal point, in order to account for different needs of countries on the basis, inter alia, of each country's size;

(c) Rewording the text for activity area 7, to make its intent clearer. To that end, the concept "enhance the local commerce infrastructure" has been replaced with the concept "supporting the introduction of POPs alternatives";

(d) For several of the activities, placing more emphasis on the possibility of implementation at the regional level;

(e) Adding emphasis throughout the report that a primary goal of the activities that it describes is to ensure that capacity is built within the country, thereby reducing dependence on outside experts;

(f) Deleting actual dollar figures: all costs are now reflected in terms of labour hours and, where travel or other costs are expected to be significant, this is indicated but no actual cost estimates are given;

(g) Modifying the descriptions of some activities to reflect the possibility of the use of train-the-trainer approaches in regional activities.

4. A number of capacity-building activities have been added to the report. These include: periodic updating of national POPs inventories under activity area 1; preparation of periodic updates of national action plans, development of a hazard assessment and risk characterizations and development of a socio-economic impact assessment under activity area 2; establishment of expert groups to review POPs alternatives and policy options and development of guidelines on acceptable POPs alternatives under activity area 6; and conducting workshops for local stakeholders to facilitate the development of a local support network for the introduction of POPs alternatives under activity area 7.

Annex

**Possible Capacity Building Activities
and Their Associated Costs
under the International Legally Binding Instrument
for Implementing International Action
on Certain Persistent Organic Pollutants**

A Preliminary Review

First Revision

UNEP Chemicals

July 1999

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Possible Capacity Building Activities and Their Associated Costs Under the International Legally Binding Instrument for Implementing International Action on Certain Persistent Organic Pollutants : A Preliminary Review -- First Revision

1. Introduction

At the first session of the Intergovernmental Negotiating Committee (INC) for an International Legally Binding Instrument for Implementing International Action on Certain Persistent Organic Pollutants, delegates requested the Secretariat to prepare a paper describing the costs associated with various capacity building activities which might be undertaken in developing countries and countries with economies in transition (CEITs).

At the same time, it was recognised that a substantial amount of work might be needed in the area of capacity building in developing countries and CEITs in order to inform stakeholders about the issue of POPs and the Legally Binding Instrument. Once the Legally Binding Instrument is in place, governments and others will need to set policies and undertake a variety of activities aimed at meeting their country's obligations with regard to POPs. Building local capacity would enable them to be most effective and efficient in carrying out their duties.

The purpose of this report is to provide information about the types of capacity building activities that might be necessary, and the resources (financial and otherwise) which would be required to carry out these activities. The capacity building activities presented in this report represent a subset of the activities that may ultimately be needed. In addition, it is possible that some of the activities included in the report will, in fact, not be needed. The final form and content of the Legally Binding Instrument will ultimately dictate exactly what type of activities are needed in general, and the individual situation in each country will dictate the capacity building needs of that particular country.

2. Organisation of this Report

Following the introduction and organisation sections, Section 3 presents capacity building activities associated with meeting potential obligations under a future POPs Convention. These activities are categorised into eight general "activity areas" as follows:

- development of a POPs inventory;
- development of an action plan for complying with a POPs convention;
- establishment of a POPs focal unit or support of a POPs focal point;
- development and implementation of regulatory controls;
- enforcement of regulatory controls;
- technology transfer activities;

- supporting the introduction of POPs alternatives; and
- development of an outreach/information dissemination programme.

In developing the list of general activity areas and the specific activities within each, it was necessary to make certain assumptions about the requirements that will ultimately be placed on countries signing the Convention. The underlying assumption made about the content of the POPs Convention is that it will require a reduction in and possibly complete elimination of consumption of each of the POPs addressed. Furthermore, it is important to note that, although not all activities can be considered purely capacity building activities, they have been included in order to present a comprehensive picture of possible costs that might be incurred by developing countries and CEITs in complying with their commitments under the POPs Convention.

3. Capacity Building Activities

Within each of the eight general activity areas presented in Section 2, the information provided is divided into four sections:

- Overview: This section summarises the purpose of the general activity, its potential relevance to countries under the POPs Convention, and the remainder of the information contained in the description of the activity area.
- Potential Funding Source: This section provides a list of possible funding sources for undertaking the specific activities listed within the general activity area.
- Key Assumptions Used in Analysis: This section specifies some of the key assumptions that were used throughout the analysis of the general activity area.
- Specific activities: This section consists of a listing of specific activities. Information presented for each activity includes: purpose/goals, potential participants, associated costs, project implementation summary, timeframe, frequency**, and applicability***.

In considering the above information, a number of factors should be kept in mind. First, some of these activities may prove to be unnecessary, while additional activities are likely to be needed. This is because the capacity building needs in any particular country will ultimately be determined based on two

Frequency may include descriptions such as “one-time,” “recurring,” “continuous,” “semi-annual,” “periodic,” etc. with an explanation, if necessary.

Applicability will typically be one of the following: “global,” meaning that the activity can be carried out a single time and the results used in all countries; regional, meaning that the activity can be carried out in several regional locations and the results used by all of the countries in the region; or “national,” meaning that the activity should be carried out in each country individually.

primary considerations: the requirements of the country under the POPs Convention and the current situation in the country.

Second, the methods presented for completing each of the various activities are just one of many methods that may be available to achieve a successful conclusion. Those presented have been selected based on their past success in accomplishing similar objectives under other environmental treaties. However, they may by no means be the only options.

Third, associated costs are estimated based on a number of assumptions. These assumptions involve factors such as: number of participants in workshops; number of international speakers attending in-country workshops; duration of conferences, workshops, and meetings; and documents to be produced as part of activities.. The assumptions used differ by activity.

Fourth, to the greatest extent possible, lists of potential activities were developed with the primary focus on building capacity within the country. While this may result in more up-front costs for activities such as preparation of guidance documents and provision of training programs, the long-term benefit of such activities is that, in the future, activities to be carried out could be undertaken primarily by local individuals, with minimal reliance on outside expertise.

Finally, cost estimates included in the report are expressed in terms of labour hours, rather than in monetary terms. The reason is that there are typically several types of individuals who might undertake the various activities described, and the cost associated with the work of each can vary greatly. For example, reliance on international experts and individuals from outside a particular country will often result in a higher cost than reliance on purely domestic expertise. Furthermore, to the extent that activities are completed by government personnel, the amount of out-of-pocket funding required will be substantially reduced. In any case, it is important to keep in mind that all activities will involve some additional costs beyond the labour required. In a number of cases, these additional costs for items such as travel, meeting support, document production/distribution, and office operation will be significant.

Table 1. Summary of Activity Areas and Capacity Building Activities****

Activity Areas: Specific Activities	Applicability	Frequency	Associated Costs in Labour Hours (additional cost codes -- see footnote)
1. Development of a POPs Inventory:			
1/1 Formulate an internationally accepted methodology for completing an inventory.	global	one-time	1,140 (T,M,D)
1/2 National preparation on POPs for key in-country personnel.	national	one-time	210
1/3 "Training the trainers" workshop on the procedures for completing and evaluating a POPs inventory.	regional	one-time	2,000 (T,M)
1/4 Workplan development.	national	one-time	110
1/5 Technical expert assistance for the development of a national inventory.	national	one-time	40
1/6 Development of a draft national inventory.	national	one-time	740
1/7 Internal and external review of the national inventory and preparation of the final report.	national	one-time	190
1/8 Periodic updating of national inventory.	national	periodic	600 per update
2. Development of an action plan for complying with a global POPs Convention			
2/1 Production of guidance document on the development of a national action plan.	global	one-time	260
2/2 Production of guidance documents on risk assessment, socio-economic impacts assessment, policy and technology options, evaluation of options, and alternatives for each POP.	global	one-time	4,500 (D)
2/3 Conference on risk assessment, socio-economic impacts assessment, policy and technology options, evaluation of options, and alternatives.	national or regional	one-time	570 (T,M)
2/4 Development of a hazard assessment and risk characterisation for the country.	national	one-time	500
2/5 Development of a socio-economic impacts assessment for the country.	national	one-time	500
2/6 "Training the trainers" workshop on the development of a national action plan.	regional	one-time	2,000 (T,M)
2/7 Development of a national action plan.	national	one-time	600

The associated costs listed for each activity in this table are presented in terms of labour hours only. However, it is important to note that all activities will involve some additional costs. In a number of cases, these additional costs for items such as travel, meeting support, document production/distribution, and office operation will be significant. Where such additional costs are anticipated to be significant, these are noted in this table using the following codes: T = travel costs, M = meeting support costs, D = document production/distribution costs, and O = office operational costs.

Activity Areas: Specific Activities	Applicability	Frequency	Associated Costs in Labour Hours (additional cost codes -- see footnote)
2/8 Preparation of periodic updates to the national action plan.	national	periodic	300 per update
3. Establishment of a POPs focal unit or support of a POPs focal point			
3/1 Development of guidelines for evaluating needs and selecting an option.	global	one-time	350
3/2 Support for a local POPs focal point -or- Establishment and operation of a local POPs focal unit.	national	continuous	2,580 (T,D,O) for a POPs focal point -or- 4,260 (T,D,O) for a POPs focal unit
4. Development and implementation of regulatory controls			
4/1 Workshop to evaluate existing regulatory controls and to identify additional controls required.	national	one-time	330
4/2 Establishment of regulatory controls in a country.	national	continuous	Highly variable depending upon the regulatory structure in the country.
5. Enforcement of regulatory controls			
5/1 Development of a guidance document on enforcement options and costs.	global	one-time	260
5/2 Training workshop for appropriate government agencies and personnel on enforcement of regulatory controls.	national	one-time	410
5/3 Developing and implementing enforcement activities within the country.	national	continuous	Highly variable depending upon the enforcement activities selected.
6. Technology transfer activities			
6/1 Establishing expert groups to review POPs alternatives and policy options.	global	continuous	0
6/2 Development of guidelines on acceptable POPs alternatives.	global	periodic	0
6/3 Design and implementation of demonstration projects.	regional	periodic	Highly variable depending upon the alternative technologies selected.
6/4 Study tours on different alternatives.	national	periodic	470 per study tour (T)
6/5 Workshop for local stakeholders on available alternatives with representatives of companies supplying alternatives.	national	periodic	350 per workshop (T)

Activity Areas: Specific Activities	Applicability	Frequency	Associated Costs in Labour Hours (additional cost codes -- see footnote)
6/6 Sector-by-sector training on the application of POPs alternatives.	national	periodic	400 per workshop
7. Supporting the introduction of POPs alternatives			
7/1 Development of a critical evaluation of the current local capability within the country to support the introduction of new technologies/alternatives.	national	one-time	500 (T)
7/2 Development of a guidance document on supporting the introduction of POPs alternatives.	global	one-time	280
7/3 Workshop for local stakeholders to facilitate the development of a local support network for the introduction of POPs alternatives.	national	one-time	400 (T)
8. Development of an outreach/information dissemination programme			
8/1 Development of outreach materials for worldwide use to increase awareness of the POPs issue.	global	one-time	Highly variable depending upon the types of materials to be produced.
8/2 Creation of regional resource centres.	regional	continuous	2,160 (T,D,O)
8/3 Development of materials for and implementation of local public outreach campaigns.	national	continuous	Highly variable depending upon the outreach methods employed and the materials produced..
8/4 Development of materials for and implementation of local industry outreach campaigns.	national	continuous	Highly variable depending upon the outreach methods employed and the material produced.

A. ACTIVITY AREA #1: DEVELOPMENT OF A POPs INVENTORY

Overview:

Development of a national POPs inventory would allow policymakers within a government to make informed decisions concerning policy options for complying with the POPs Convention. In order to properly determine a course of action, it is often useful to first develop a thorough knowledge of the baseline from which efforts would be initiated. The national inventory would represent such a baseline. It would describe the present situation in the country with regards to production, imports, exports, stocks, and use of each of the POPs. Policymakers could then use this information to determine the appropriate course of action within the country concerning POPs. Furthermore, the inventory could be updated periodically and used as a tool to track progress toward achieving goals.

A total of eight activities are recommended to allow for the successful development of a national inventory in any particular country. These are presented below. It should be noted that one of the activities (“Formulation of an internationally accepted methodology for completing an inventory”) is general in nature and need only be undertaken one time, and not for each individual country. Furthermore, one activity (“Training the trainers’ workshops on the procedures for completing and evaluating a POPs inventory”) is regional in nature and would be implemented one time in several locations, and not for each country individually. All other activities are recommended for each country.

Potential Funding Sources:

Potential sources of funding for the completion of the activities described in this activity area include:

- POPs convention financial mechanism
- Multilateral Development Banks
- Bilateral contributions from developed country governments

Key Assumptions Used in Analysis:

A number of key assumptions were made in determining the tasks to be performed and the costs associated with implementation of each activity. These assumptions include:

- The cost analysis assumes a medium-size country. A medium-size country for this activity refers to the geographic area of the country.
- It is assumed that the costs for undertaking this activity for a small-size country may be 25% less than those described in the table.
- It is assumed that the costs for undertaking this activity for a large-size country may be 60% more than those described in the table.

Specific Activities:

Activity 1/1. Formulation of an internationally accepted methodology for completing an inventory.

Purpose/Goals: This activity would insure that an appropriate and accepted methodology is used when developing the inventories so that the information gathered will be of an adequate level of accuracy. In addition, it would allow country data to be analogous to worldwide data for easy comparison. Furthermore, using a predetermined methodology would make the dissemination of information easier and more cost-effective as information would not need to be interpreted to other formats.

Potential Participants: Experts on POPs; Convention Secretariat staff; university professors and researchers specializing in chemistry, public health, the environment, and industrial processes; public interest community; manufacturers of POPs; and experts on agricultural issues.

Associated Costs: 1,140 labour hours. It should be noted that this activity will also require funding for significant travel costs, meeting support costs, and document printing and distribution costs.

Project Implementation: The formulation of an internationally accepted methodology could begin with the formation of a working group and a kick-off meeting. At the kick-off meeting, objectives might be elaborated and a timetable agreed upon for development of the methodology. It is assumed that the kick-off meeting might last for one week. By the end of the week, an outline of the proposed methodology would be developed, and assignments would be given to individuals or subgroups for preparation of portions of the methodology. Over the next approximately 5 months, these individuals and subgroups could develop their portions of the methodology and forward them to a party who would prepare a complete draft of the methodology. The entire working group would then convene for another one-week meeting to discuss and edit the methodology, after which the final methodology would be prepared and forwarded to the Convention Secretariat for review and approval.

Timeframe: Approximately 12 months.

Frequency: One-time activity.

Applicability: Global (not required for each country individually)

Activity 1 /2. National preparation on POPs for key in-country personnel.

Purpose/Goals: The purpose of this activity would be to get stakeholders involved in consideration of the POPs issue in the early stages of the process and to share general information on POPs, the Convention, and its potential impact on the country. It also presents a good opportunity to meet key players in the sector that might be crucial in developing the national action plan at a later date.

Potential Participants: Government agency personnel (i.e., Environment Ministry, Agriculture Ministry, and Health Ministry); local university professors; local stakeholders (i.e., individuals and companies who use or produce/generate POPs); and local experts.

Associated Costs: 210 labour hours.

Project Implementation: An introduction/kick-off meeting on POPs for selected in-country personnel would be an important activity in educating local personnel about the POPs issue and the POPs Convention. It is envisioned that such a meeting would last for one day. To begin, an agenda would be developed and potential speakers and participants identified. Solicitations would then be made to secure both local and international speakers, and invitations would be sent to potential participants. Local logistical preparations would need to be made such as rental of a meeting space/equipment, preparation of meeting documents/materials, catering. After completion of this educational program, participants in this activity would also be able to carry out similar programs on a local level if desired.

Timeframe: Approximately 4 months.

Frequency: One-time activity.

Applicability: National (required for each country individually)

Activity 1/3. "Training the trainers" workshops on the procedures for completing and evaluating a POPs inventory.

Purpose/Goals: The aim of this activity would be to impart the knowledge necessary concerning application of the internationally accepted inventory methodology to enable individuals within a country to develop the inventory. In addition to training on the methodology for completing the inventory, participants would also be informed as to the appropriate methods for critically evaluating the results of the inventory.

Potential Participants: Government agency personnel (i.e., Environment Ministry, Agriculture Ministry, and Health Ministry); international experts; and Convention Secretariat staff.

Associated Costs: 2,000 labour hours (400 hours for each workshop) plus time for attendance by country representatives. It should be noted that this activity will also require funding for significant travel costs and meeting support costs.

Project Implementation: It is envisioned that five regional training workshops on the procedures for conducting a comprehensive domestic POPs inventory could take place, each lasting for four days. Participants would be delegates from developing country and CEIT governments who have been appointed as trainers on preparation of a POPs inventory. During the workshop, experts would "train the trainers" by illustrating the application of the methodology, providing examples, and answering questions. For this training a number of international speakers would be solicited. In addition, a packet of information would be provided to each participant including presentations, examples of methodology application, the manual describing the methodology, and contact information for further assistance. Local logistical preparations would need to be made such as rental of a meeting space/equipment, preparation of meeting documents/materials, catering, etc. Participants in the workshop would be expected to return to their home countries and to conduct similar training for those who will be responsible for preparing the POPs inventory.

Timeframe: Approximately 6 months per workshop, though they could take place with overlapping timeframes.

Frequency: One-time activity.

Applicability: Regional (to be implemented on a regional basis, but not required for each country individually)

Activity 1/4. Workplan development.

Purpose/Goals: The objective of this activity would be to elaborate a schedule for the development of the inventory that is appropriate for the country. This would provide a timeframe for completing major tasks that could be used to continually monitor the progress being made during completion of the inventory. In addition, the workplan would clearly assign responsibilities to the various parties involved in the process.

Potential Participants: Government agency personnel (i.e., Environment Ministry, Agriculture Ministry, and Health Ministry) and individuals preparing the national inventory.

Associated Costs: 110 labour hours.

Project Implementation: The detailed workplan for completing the national inventory would be developed by local individuals who would be involved in the preparation of the national inventory. It is envisioned that the workplan would be developed collaboratively through two full-day meetings. During these meetings, the timetable and responsible parties for each major task would be determined.

Timeframe: Approximately 4 weeks.

Frequency: One-time activity.

Applicability: National (required for each country individually)

Activity 1/5. Technical expert assistance for the development of a national inventory.

Purpose/Goal: This activity would provide the local individuals working on the inventory with technical expert assistance from domestic and/or international experts. These experts would serve as a general resource to answer questions and provide any other assistance which might be necessary to ensure successful completion of the inventory.

Potential Participants: Convention Secretariat staff and domestic/international technical experts.

Associated Costs: 40 labour hours.

Project Implementation: The individuals completing the inventory would have access throughout the actual development of the inventory to assistance from a domestic or international technical expert. It is estimated that each country would require approximately 40 hours of such assistance (separate from the external review described below) in the preparation of the inventory.

Timeframe: Occasional assistance up to 40 hours over a period of approximately 8-11 months while the national inventory is being developed.

Frequency: One-time activity.

Applicability: National (required for each country individually)

Activity 1/6. Development of draft national inventory.

Purpose/Goals: The goal of this activity would be the development of a national inventory on POPs by local staff, and the assembly of a draft report.

Potential Participants: Government agency personnel (i.e., Environment Ministry, Agriculture Ministry, and Health Ministry); individuals preparing the national inventory; international experts; and stakeholders (i.e., individuals and companies who use or produce POPs).

Associated Costs: 740 labour hours.

Project Implementation: To complete the national inventory, the most important task would be conducting detailed research. Staff would need to conduct literature searches, interviews, and site visits to a number of locations before analysing the data gathered and preparing a draft report. The length of time and amount of resources required to complete these tasks would be highly dependent on the use of POPs and the size of the country.

Timeframe: Highly dependent on the situation in the country. In general, approximately 6-9 months.

Frequency: One-time activity.

Applicability: National (required for each country individually)

Activity 1/7. Internal and external review of the national inventory and preparation of the final report.

Purpose/Goals: The goal of this activity would be the review of the completed draft national inventory by both individuals within a country and an international expert, as well as the preparation of a final national inventory report. Its purpose would be to provide sufficient review by both in-country and international experts to ensure that data contained in the national inventory is both as accurate as possible and of sufficient detail to serve as useful input into the development of a national action plan (see Activity Area #2).

Potential Participants: Convention Secretariat staff; domestic experts not involved in inventory preparation; and international experts not involved in inventory preparation

Associated Costs: 190 labour hours.

Project Implementation: The internal review of the draft national inventory could be undertaken by one or more local experts not involved in the preparation of the draft report. Similarly, the external

review could be conducted by an international technical expert who was not involved in the preparation of the draft report. The reviewer(s) would examine the inventory and contact the team producing the inventory to ask questions and obtain clarification, if necessary. Both the internal and external reviewer(s) could then prepare a memorandum providing comments and specifying the areas where changes are recommended. Finally, after all comments have been received, a final version of the national inventory report would be prepared and submitted to the government.

Timeframe: Approximately 2 months.

Frequency: One-time activity.

Applicability: National (required for each country individually)

Activity 1/8. Periodic updating of national inventory.

Purpose/Goals: The goal of this activity would be the revision of the existing national inventory on POPs to reflect changes that had occurred since the previous inventory was prepared.

Potential Participants: Government agency personnel (i.e., Environment Ministry, Agriculture Ministry, and Health Ministry); individuals preparing the updated national inventory; international experts; and stakeholders (i.e., individuals and companies who use or produce POPs).

Associated Costs: 600 labour hours per update.

Project Implementation: Same as for preparation of the original national inventory. See description for Activity 1/6.

Timeframe: Highly dependent on the situation in the country. In general, approximately 3-6 months, as the best sources of information will have been identified during preparation of the original national inventory.

Frequency: Periodic activity, possibly being undertaken every 2-3 years.

Applicability: National (required for each country individually)

B. ACTIVITY AREA #2: DEVELOPMENT OF AN ACTION PLAN FOR COMPLYING WITH A GLOBAL POPs CONVENTION

Overview:

The national action plan would be a comprehensive description of the plans of the government for complying with the mandates of the POPs Convention. It would be formulated based on the information contained in the national inventory, and would serve as a guidance document for initiating future activities within the country related to POPs. Ideally, if the government were to implement all of the components of the action plan, they would, at a minimum, achieve full compliance with the POPs Convention.

A total of eight activities are recommended to allow for the successful development of a national action plan for complying with the POPs Convention. These activities are presented below. It should be noted that two of the activities (“Production of a guidance document on the development of a national action plan” and “Production of guidance documents on risk assessment, socio-economic impacts assessment, policy and technology options, evaluation of options, and alternatives for each POP”) are general in nature and need only be undertaken one time, and not for each individual country. Furthermore, one activity (“Training the trainers’ workshop on the development of a national action plan”) is regional in nature and would be implemented one time in several locations, and not for each country individually. All other activities are recommended for each country.

Potential Funding Sources:

Potential sources of funding for the completion of the activities described in this activity area include:

- POPs convention financial mechanism
- Multilateral Development Banks
- Bilateral contributions from developed country governments
- Manufacturers of new technologies and alternatives

Key Assumptions Used in Analysis:

A number of key assumptions were made in determining the tasks to be performed and the costs associated with implementation of each activity. These assumptions include:

- The cost analysis assumes a medium-size country. A medium-size country for this activity refers to the geographic area of the country.
- It is assumed that the costs for undertaking this activity for a small-size country may be 25% less than those described in the table.
- It is assumed that the costs for undertaking this activity for a large-size country may be 60% more than those described in the table.

Furthermore, for this activity area it was especially important to make general assumptions regarding the possible measures to be imposed by the Convention in considering the necessary tasks leading to an appropriate national action plan. To this end, it is assumed that the POPs Convention will impose:

- Restrictions and/or bans on the manufacture, use, and distribution in commerce of the 12 POPs.
- Controls on emissions and disposal of the 12 POPs.
- Measures on waste minimization.
- Information reporting requirements and labeling rules.

Specific Activities:

Activity 2/1. Production of a guidance document on the development of a national action plan.

Purpose/Goals: The purpose of this document would be to provide some guidance to country representatives as to the steps and information that is needed to design an Action Plan that is appropriate to the country's circumstances. This document would also provide the country representatives with a list of tasks that would need to be resolved in order to successfully develop an Action Plan (e.g., responsible parties for each project, timetable, resources for the completion of the projects)

Potential Participants: Convention Secretariat staff and international policy experts.

Associated Costs: 260 labour hours.

Project Implementation: The production of a guidance document on the development of a national action plan would begin with the collection of information from Convention Secretariat staff and POPs experts about the data that would be needed to develop an action plan. In addition, a review of Action Plans prepared under similar environmental treaties would be worthwhile. Using the information gathered and the expertise of those producing the document, a draft guidance document would be prepared. After sufficient time for comments by interested parties, a final version of the guidance document would be prepared.

Timeframe: Approximately 4 months.

Frequency: One-time activity.

Applicability: Global (not required for each country individually)

Activity 2/2. Production of guidance documents on risk assessment, socio-economic impacts assessment, policy and technology options, evaluation of options, and alternatives for each POP.

Purpose/Goals: The objective of this activity would be to provide individuals involved in the preparation of an Action Plan with accessibility to technical and policy information on POPs. This technical information would be essential in order to adequately analyse the various options available to achieve compliance with the POPs Convention and to decide upon the components of an appropriate Action Plan that meets the country's needs.

Potential Participants: Convention Secretariat staff; technical experts on the various POPs and their uses (these might include university professors, international experts, and local experts); international policy experts; chemical exposure risk assessment experts; and manufacturers and users of alternative technologies.

Associated Costs: 4,500 labour hours (300 labour hours per guidance document). It should be noted that this activity will also require funding for significant document printing and distribution costs.

Project Implementation: The production of guidance documents on risk assessment, socio-economic impacts assessment, policy and technology options, evaluation of options, and alternatives for each POP would involve a substantial amount of research on each topic. This research would include an extensive literature review, interviews with technical and policy experts, and visits to manufacturers and users of new technologies. Using the information gathered through this research, a number of guidance documents might be prepared. This evaluation assumes that 15 documents would be written first in draft form, and then finalized after receipt of comments from interested parties. It is envisioned that one of the documents would address risk assessment related to POPs; one would address the socio-economic impacts associated with the measures required by the Convention; one would address identification/evaluation of policy options; and the remaining 12 would each address technology options associated with one of the 12 POPs included in the Convention. Efforts to produce these documents would be closely linked to those under Activity 6/4.

Timeframe: Approximately 12 months, assuming that many of the documents are under development simultaneously.

Frequency: One-time activity.

Applicability: Global (not required for each country individually)

Activity 2/3. Conference on risk assessment, socio-economic impacts assessment, policy and technology options, evaluation of options, and alternatives.

Purpose/Goals: The objective of this activity would be to provide those who will be involved in preparation of the national action plan and related materials with the necessary knowledge to accomplish their assigned tasks (i.e., evaluate policy options, perform a risk assessment, etc.).

Potential Participants: Government agency personnel (i.e., Environment Ministry, Agriculture Ministry, and Health Ministry); university professors; users and manufacturers of POPs; local technical and policy experts; and international technical and policy experts.

Associated Costs: 570 labour hours. It should be noted that this activity will also require funding for significant travel costs and meeting support costs.

Project Implementation: The conference on risk assessment, socio-economic impacts assessment, policy and technology options, evaluation of options, and alternatives is envisioned to be approximately one-week in length. It is likely that most participants would attend a portion of the conference, while a few would attend the entire week. Presentations at the conference would be given by identified local and international experts in an effort to inform participants concerning the subjects noted above. The conference would use the guidance documents developed under the previous activity as teaching tools. In addition, alternative technologies might be displayed and/or demonstrated for participants. Local logistical preparations would need to be made such as rental of a meeting space/equipment, preparation of meeting documents/materials, catering, etc.

Timeframe: Approximately 5 months.

Frequency: One-time activity.

Applicability: National (required for each country individually) or Regional (to be implemented on a regional basis, but not required for each country individually)

Activity 2/4. Development of a hazard assessment and risk characterization for the country.

Purpose/Goals: The goal of this activity would be to produce a POPs hazard assessment and risk characterization for the country with regards to health, safety, and the environment. The country-specific risk characterization will provide a starting point for development of risk management considerations in the national action plan.*****

Risk management is an activity conceptually distinct from risk assessment, involving a policy of whether and how to respond to risks to health, safety, and the environment. The appropriate level of protection is a policy choice rather than a scientific assessment.

Potential Participants: Government agency personnel (i.e., Environment Ministry, Agriculture Ministry, and Health Ministry); local and international risk assessment experts; and manufacturers and users of POPs.

Associated Costs: 500 labour hours.

Project Implementation: A detailed hazard assessment and risk characterization relating to POPs might be developed for the country using the information gathered and presented in the national inventory and the collection and analysis of additional material. The major components of risk assessment are hazard identification, dose-response relationships (i.e., relationships between exposure and effects), and exposure assessment. The collecting, analyzing, and synthesizing of scientific data to produce the hazard identification and the dose-response portion of a risk assessment are tasks that have already been completed for the 12 POPs. This leaves the exposure assessment portion of the task to be completed by each individual country. A country-specific exposure assessment typically includes collecting and analyzing information concerning:

- the paths, patterns, and magnitudes of human exposure to POPs (including the media through which exposures or damages take place and private and public sources responsible for creating exposures);
- the quantity of persons likely to be exposed and the expected number of adverse health effects;
- level, frequency, and duration of exposures;
- the distribution of risk;
- expected evolution of the POPs problem over a specified time horizon; and
- reduction of risks due to Convention measures (see assumptions at the beginning of this section).

In addition, the exposure assessment may involve: monitoring of chemical concentrations in environmental media, food, and other materials (e.g., leaking equipment, leaching from landfills and industrial sites, etc.); the development of computer models; and interviews and discussions with government agencies, industry representatives, and other relevant stakeholders.

It is envisioned that the hazard assessment and risk characterization would be carried out by local experts, with consultation and input provided by an international expert. After completion of the data gathering and analysis, a draft report would be prepared. Comments on this draft would later be incorporated to produce a final report.

Timeframe: Approximately 6 months.

Frequency: One-time activity.

Applicability: National (required for each country individually)

Activity 2/5. Development of a socio-economic impacts assessment for the country.

Purpose/Goals: The goal of this activity would be to develop an assessment of socio-economic impacts for the country associated with requirements of the Convention. The ultimate goal in preparing this assessment is to provide the socio-economic information needed to support the development of an appropriate national action plan. Such information may be used to determine the possible market-based approaches which might be a part of the national action plan, such as: taxes, fees, subsidies, and/or marketable permit systems.

Potential Participants: Government agency personnel (i.e., Environment Ministry, Agriculture Ministry, and Health Ministry); local and international risk assessment experts; public interest community; manufacturers and users of POPs; and other stakeholders.

Associated Costs: 500 labour hours.

Project Implementation: A detailed assessment indicating the socio-economic impacts of the Convention might be developed for the country using the information gathered for the national inventory and the risk assessment, coupled with additional data gathered through further research. This further research is expected to include interviews and discussions with government agencies and other relevant stakeholders. A socio-economic impacts analysis should determine not only the market values of POPs, but the true value of POPs use and the use of POPs alternatives to society (e.g., pest control for crops, etc.), including the costs and benefits to governments, the general public, and the private sector. It is envisioned that the assessment would be carried out by local experts, with consultation and input provided by international experts.

International guidance may be necessary in determining the economic and social effects of the Convention in a country. The transition away from POPs usage may produce economic impacts relating to: prices for producers and consumers; production; industry growth and profitability; capital availability (including plant closures); international trade; employment; possibility for market failures (e.g., market crisis due to POPs shortages); resource shifts to other markets; private real-resource compliance costs (e.g., changes in equipment); and government regulatory costs (e.g., monitoring/reporting, training, administration, enforcement, permitting). In addition, social welfare impacts (i.e., influences on the community) may result relating to: changes in product quality; and health, safety, and environmental quality.

After completion of the data gathering and analysis, a draft report would be prepared. Comments on this draft would later be incorporated to produce a final report.

Timeframe: Approximately 6 months.

Frequency: One-time activity.

Applicability: National (required for each country individually)

Activity 2/6. "Training the trainers" workshop on the development of a national action plan.

Purpose/Goals: The aim of this activity would be to impart the knowledge necessary for individuals within the country to prepare the national action plan. It is hoped that after completion of the training, participants would be capable of training others in their home country to prepare an effective Action Plan.

Potential Participants: Government agency personnel (i.e., Environment Ministry, Agriculture Ministry, and Health Ministry); international experts; and Convention Secretariat staff.

Associated Costs: 2,000 labour hours (400 hours for each workshop) plus time for attendance by country representatives. It should be noted that this activity will also require funding for significant travel costs and meeting support costs.

Project Implementation: It is envisioned that five regional training workshops on the completion of POPs national action plans would be conducted, with each being held over a period of two days. Participants would be delegates from developing country and CEIT governments who have been appointed as trainers on the preparation of POPs national action plans. During the workshop, international experts would "train the trainers," using the guidance document discussed earlier, on the most effective methods for preparing an appropriate action plan. A packet of information would be provided to each participant, which would include all presentations and a copy of the guidance document, among other information. Local logistical preparations would need to be made such as rental of a meeting space/equipment, preparation of meeting documents/materials, catering, etc. Participants in the workshop would be expected to return to their home countries and to conduct similar training for those who will be responsible for preparing the country's national action plan.

Timeframe: Approximately 6 months per workshop, though they could take place with overlapping timeframes.

Frequency: One-time activity.

Applicability: Regional (to be implemented on a regional basis, but not required for each country individually)

Activity 2/7. Development of a national action plan.

Purpose/Goals: The goal of this activity would be the development of a national action plan on POPs by local staff and the assembly of an action plan report.

Potential Participants: Government agency personnel (i.e., Environment Ministry, Agriculture Ministry, and Health Ministry); individuals preparing the Action Plan; international experts; and stakeholders (i.e., individuals and companies who use or produce POPs).

Associated Costs: 600 labour hours.

Project Implementation: During the preparation of the action plan itself, the most important activity would be the consideration of various policy options. These options should be considered in the context of the national inventory, the hazard assessment/risk characterization, and the socio-economic impacts assessment described earlier. In addition, discussions could be held with stakeholders concerning likely components of the action plan. While it will be necessary for each country to prepare its own unique action plan, countries should, to the greatest extent possible, collaborate in the development of these plans to take into account issues of regional concern (for example, to discuss the possibility of trade restrictions, reporting requirements, regulatory enforcement cooperation, etc.). Finally, after the plan has been agreed upon, a report detailing its various components would be prepared. It is envisioned that this activity could be undertaken by local experts, with consultation and input provided by international experts.

Timeframe: Approximately 6 months.

Frequency: One-time activity.

Applicability: National (required for each country individually)

Activity 2/8. Preparation of periodic updates to the national action plan.

Purpose/Goals: The goal of this activity would be the revision of the existing national action plan on POPs to reflect changes that had occurred since the previous action plan was prepared.

Potential Participants: Government agency personnel (i.e., Environment Ministry, Agriculture Ministry, and Health Ministry); local and international experts and consultants; and stakeholders (i.e., individuals and companies who use or produce POPs).

Associated Costs: 300 labour hours per update.

Project Implementation: Same as for preparation of the original national action plan. See description for Activity 2/7. It is envisioned that this activity could be undertaken by local experts, with consultation and input provided by international experts.

Timeframe: Highly dependent on the situation in the country. In general, approximately 3-6 months.

Frequency: Periodic activity, possibly being undertaken every 2-3 years immediately following updates to the national POPs inventory.

Applicability: National (required for each country individually)

C. ACTIVITY AREA 3: ESTABLISHMENT OF A POPs FOCAL UNIT OR SUPPORT OF A POPs FOCAL POINT

Overview:

At the present time, most countries have designated POPs focal points to serve as primary points of contact for issues relating to POPs. The establishment of a POPs focal unit within each country is an extension of this principle, and may be beneficial or necessary for certain countries. Since the activities undertaken within a country to comply with the POPs Convention will be many and varied over the years after signature of the Convention, substantial effort will be required within each country government to coordinate and monitor the progress of these activities. Depending on the circumstances in any particular country, such a job may be too much for a single individual (the POPs focal point) to handle. In such cases, the establishment of a POPs focal unit would provide all of the support necessary. A similar scheme has been adopted for the implementation of other environmental treaties, such as the Montreal Protocol on Substances that Deplete the Ozone Layer. Most developing countries now have "Ozone Desks" within their Ministries of Environment to serve as coordinators and resource centres relating to the Montreal Protocol.

A total of two activities are recommended for supporting a POPs focal point or establishing a POPs focal unit within a country. These are presented below. It should be noted that one of the activities ("Development of guidelines for evaluating needs and selecting an option") is general in nature and need only be undertaken one time, and not for each individual country. All other activities are recommended for each country individually.

Potential Funding Sources:

Potential sources of funding for the completion of the activities described in this activity area include:

- POPs convention financial mechanism
- Multilateral Development Banks
- Bilateral contributions from developed country governments

Key Assumptions Used in Analysis:

A number of key assumptions were made in determining the tasks to be performed and the costs associated with implementation of each activity. These assumptions include:

- The cost analysis assumes a medium-size country. A medium-size country for this activity refers to the geographic area of the country.
- It is assumed that the costs for undertaking this activity for a small-size country may be 20% less than those described in the table.
- It is assumed that the costs for undertaking this activity for a large-size country may be 60% more than those described in the table.

Specific Activities:

Activity 3/1. Development of guidelines for evaluating needs and selecting an option.

Purpose/Goals: The purpose of this activity would be to assist country governments in determining their need for a POPs focal point or a larger POPs focal unit. The goal of the activity would be to prepare guidelines describing the criteria to be used and considerations to be made in determining the most effective and efficient means of coordinating activities undertaken to meet the requirements of the POPs Convention.

Potential Participants: Convention Secretariat staff; international experts; and staff of similar units already existing under other environmental treaties.

Associated Costs: 350 labour hours.

Project Implementation: The development of guidelines for evaluating domestic needs to ensure successful implementation of the POPs Convention would draw upon the experiences from similar activities undertaken as part of compliance with other environmental treaties. Those developing the guidelines might conduct research into the functions of these similar units (such as the Montreal Protocol Ozone Desks within many Environment Ministries) and might formulate recommendations for countries to assess the need for such a unit to address POPs. The final guidelines could be prepared in the form of a guidance document to be distributed to all Parties to the POPs Convention. These guidelines would focus on assisting countries to evaluate their POPs activity coordination needs based on a number of factors, including: quantities of POPs used, diversity of applications in which POPs are used, geography of the country, available resources, etc. They would also summarize and compare/contrast the estimated costs associated with support of a POPs focal point and establishment/operation of a POPs focal unit. Countries making use of the guidelines should then be able to assess their need for either a POPs focal point or a POPs focal unit, and to select the most appropriate option for their situation.

Timeframe: Approximately 3 months.

Frequency: One-time activity.

Applicability: Global (not required for each country individually)

Activity 3/2. Support for local POPs focal point -or- Establishment and operation of a local POPs focal unit.

Purpose/Goals: The purpose of this activity would be to ensure adequate coordination of efforts and effective implementation of activities within the country to comply with the POPs Convention. The goal of the activity would be to provide support for the work of a local POPs focal point (in the absence of a larger POPs focal unit) or to establish a POPs focal unit and to provide the necessary inputs for it to operate on an ongoing basis.

Potential Participants: Government personnel from agencies where the focal point is employed or where the focal unit might be housed; local experts who might provide technical support to the POPs focal point or who might be interested to become part of the POPs focal unit; and Convention Secretariat staff.

Associated Costs: 2,580 labour hours (for support of a POPs focal point) or 4,260 labour hours (for establishment and operation of a POPs focal unit). It should be noted that this activity will also require funding for significant travel costs, office equipment/supplies, and document printing and distribution.

Project Implementation: The implementation of this activity will differ depending on the option selected -- 1) Support for a POPs focal point or 2) Establishment and operation of a POPs focal unit.

Option 1) Support for a POPs focal point -- If it is determined that the situation relating to POPs in the country can be addressed with coordination from only a single individual, the country may opt for the enhancement of the POPs focal point position, in lieu of establishment of a POPs focal unit. Once the focal point is designated, financial support may be required to fund the individual's salary, equipment (such as computer), local travel, and other expenses that would be incurred in the course of coordinating the country's POPs-related activities. The associated cost estimates provided for this activity assume support costs for the POPs focal point for a period of one full year, though in reality the position will require support for a much longer period of time. In addition, the cost estimates include 500 hours of labour for support from local technical experts and others.

Option 2) Establishment and operation of a POPs focal unit -- In establishing a POPs focal unit, the country government would need to consider their specific situation to determine the optimal structure of the unit, the location of the unit, and the physical set-up of the unit. Consensus on these issues could be reached through meetings of relevant government agencies, and input or approval might be sought from the Convention Secretariat. Once the concept has been agreed upon, the relevant agency or agencies would undertake the physical establishment of the unit. This may include acquiring appropriate office space/equipment/supplies and hiring staff. Once the unit is established, it may require financial resources to ensure its continued operation. The associated cost estimates provided

for this activity assume initial set-up of the POPs focal unit and one full year of operation. Initially, it is envisioned that the unit would include two full-time staff members.

Timeframe: Approximately 2 months to screen and select a POPs focal point, with ongoing support thereafter -or- approximately 4 months to establish the POPs focal unit, with ongoing operation thereafter.

Frequency: Continuous.

Applicability: National (required for each country individually)

D. ACTIVITY AREA 4: DEVELOPMENT AND IMPLEMENTATION OF REGULATORY CONTROLS

Overview:

It is possible that many countries may need to develop and implement formal regulatory controls in order to achieve compliance with the POPs Convention. The activities described in this activity area are designed to enable policymakers within a country to formulate and implement the most appropriate regulatory controls.

A total of two activities are recommended for aiding in the development and implementation of regulatory controls relating to POPs within a country. These are presented below. All activities are recommended for each country wishing to develop and implement such regulatory controls.

Potential Funding Sources:

Potential sources of funding for the completion of the activities described in this activity area include:

- POPs convention financial mechanism
- Multilateral Development Banks
- Bilateral contributions from developed country governments

Key Assumptions Used in Analysis:

A number of key assumptions were made in determining the tasks to be performed and the costs associated with implementation of each activity. These assumptions include:

- The cost analysis assumes a medium-size country. A medium-size country for this activity refers to the geographic area of the country.
- It is assumed that the costs for undertaking this activity for a small-size country may be 20% less than those described in the table.

- It is assumed that the costs for undertaking this activity for a large size-country may be 40% more than those described in the table.

Specific Activities:

Activity 4/1. Workshop to evaluate existing regulatory controls and to identify additional controls required.

Purpose/Goals: The purpose of this activity would be to ensure that regulatory control options adopted within a country are sound and have a good chance of success. The goal would be to bring together all relevant parties within the country in a workshop to evaluate the adequacy of existing regulatory controls, and to agree on the types of additional controls that are most likely to be required to ensure successful compliance with the POPs Convention.

Potential Participants: POPs focal unit staff or POPs focal point; other government agency personnel; and international policy experts.

Associated Costs: 330 labour hours.

Project Implementation: The workshop to evaluate existing regulatory controls and to identify additional required controls is envisioned to take place over a five-day period. During the workshop, participants would review the country's existing regulatory controls which directly or indirectly influence the production, import, export, use, and/or emissions of POPs. Participants would then review POPs national inventory and the Action Plan developed earlier, with a goal of determining the adequacy of existing regulations for ensuring successful implementation of the Action Plan. In cases where it is believed that existing regulatory controls will not be sufficient, participants would work together to determine the nature and extent of additional regulatory controls which would be needed in order to meet the goals of the Action Plan and to comply with the POPs Convention. They could be assisted by an international policy expert with experience in this subject matter. After the workshop has concluded, a summary of the next steps agreed upon by participants would be prepared and disseminated.

Timeframe: Approximately 3 months.

Frequency: One-time activity.

Applicability: National (required for each country individually)

Activity 4/2. Establishment of regulatory controls in a country.

Purpose/Goals: The goal of this activity would be to draft and put in place actual regulations to aid in the country's compliance with the POPs Convention.

Potential Participants: POPs focal unit staff or POPs focal point and government agency personnel responsible for implementation and enforcement of regulatory controls in the country.

Associated Costs: See Project Summary below.

Project Implementation: The activities required, timeframe, and costs associated with the actual establishment of agreed upon regulatory controls within any particular country will vary greatly and cannot be generalized accurately here. The process for setting regulations is very different from country-to-country. Some countries have a very formal process for setting regulations, including high-level approvals, mandatory time for public comments, responses to comments, and amendment of the proposed regulations. In these countries the amount of time required to put regulatory controls in place can be as long as 1-2 years, and the costs associated with drafting and approving regulations can be quite high when considering the amount of labour and time expended. On the other hand, many countries have a much simpler method of finalizing regulations. In these countries, lower level approvals are often sufficient, and public review and comment on proposed regulations may not be required. In these cases, the amount of time required to formalize regulatory controls can be quite short, possibly only several months. Similarly, the costs associated with the regulatory process in these cases are quite low compared to the countries with more stringent requirements. In the case of either type of country, the actual activities that would be carried out under this activity will differ depending on the nature of the regulatory control to be established.

Frequency: Continuous.

Applicability: National (required for each country individually)

E. ACTIVITY AREA #5: ENFORCEMENT OF REGULATORY CONTROLS

Overview:

If a country chooses to implement regulatory controls as part of its efforts to comply with the POPs Convention, it will then be necessary to undertake activities to ensure the enforcement of those controls. Failure to do so might result in the controls becoming ineffective and the country not achieving compliance. The activities described within this activity area would aid in the evaluation of enforcement options, and would ensure that any enforcement implemented is most effective.

A total of three activities are recommended to aid in the successful enforcement of regulatory controls in a country. These are presented below. It should be noted that one of the activities (“Development of a document on enforcement options and costs”) is general in nature and need only be undertaken one time, and not for each individual country. All other activities are recommended for each country.

Potential Funding Sources:

Potential sources of funding for the completion of the activities described in this activity area include:

- POPs convention financial mechanism
- Multilateral Development Banks
- Bilateral contributions from developed country governments

Key Assumptions Used in Analysis:

A number of key assumptions were made in determining the tasks to be performed and the costs associated with implementation of each activity. These assumptions include:

- The cost analysis assumes a medium-size country. A medium-size country for this activity refers to the geographic area of the country.
- It is assumed that the costs for undertaking this activity for a small-size country may be 20% less than those described in the table.
- It is assumed that the costs for undertaking this activity for a large size-country may be 40% more than those described in the table.

Specific Activities:

Activity 5/1. Development of a guidance document on enforcement options and costs.

Purpose/Goals: The purpose of developing a guidance document on enforcement options and costs would be to provide accessibility to information for policymakers and enforcement personnel relating to the enforcement of regulatory control options and their corresponding advantages, disadvantages, and resources required. This information would be crucial in order to ensure that the country government officials outlining enforcement options select the options best suited to the regulatory controls adopted.

Potential Participants: Government agency personnel (i.e., Customs, Coast Guard, Environment Ministry) from countries with strong regulatory enforcement programmes; international experts; public interest community; and manufacturers and users of POPs.

Associated Costs: 260 labour hours.

Project Implementation: The development of a guidance document describing regulatory enforcement options and costs might begin with research where the writers could meet with enforcement personnel from countries with strong enforcement programmes to gain further knowledge and information. Of great interest might be examples of successes and failures from these countries. After the research is completed, the writers would prepare a draft report

on enforcement options and costs. After a review period, comments received would then be incorporated to prepare a final document that could be utilized by all developing country and CEIT governments.

Timeframe: Approximately 6 months.

Frequency: One-time activity.

Applicability: Global (not required for each country individually)

Activity 5/2. Training workshop for appropriate government agencies and personnel on enforcement of regulatory controls.

Purpose/Goals: The objective of training on enforcement of regulatory controls would be to assist those responsible in the execution of enforcement activities.

Potential Participants: Government agency personnel responsible for enforcement (i.e., Customs, Coast Guard, Environment Ministry); international experts; local experts; public interest community; and manufacturers, distributors, and users of POPs.

Associated Costs: 410 labour hours.

Project Implementation: It is envisioned that a training workshop on methods of regulatory enforcement and their costs might take place over a two-day period. During this workshop, enforcement staff from relevant government agencies in the country would receive training that might include: an overview of the POPs issue and the country's approach for addressing it; an overview of the types of enforcement options available; and thorough training on those enforcement options thought to be most appropriate for the situation in that particular country. The training could be led by an international expert with experience in this field. A packet of information could be provided to each participant, which might include all presentations and a copy of the guidance document, among other information. Local logistical preparations would need to be made such as rental of a meeting space/equipment, preparation of meeting documents/materials, catering, etc.

Timeframe: Approximately 4 months.

Frequency: One-time activity.

Applicability: National (required for each country individually)

Activity 5/3. Developing and implementing enforcement activities within the country.

Purpose/Goals: The goal of this activity would be to develop and implement the specific enforcement activities within the country that would ensure compliance with the regulations put in place to address POPs.

Potential Participants: Government agency personnel responsible for enforcement (i.e., Customs, Coast Guard, Environment Ministry).

Associated Costs: See Project Summary below.

Project Implementation: The tasks required for the development and implementation of enforcement activities for regulatory controls in any particular country will vary greatly and cannot be generalized accurately here. The timeframe required and associated costs will vary similarly. There are many different methods which could be employed in the enforcement of regulatory controls relating to POPs, and the selection of the appropriate methods would be dependent on the nature of the regulatory controls being enforced. Some methods will be fairly simple and inexpensive to implement, such as requiring reporting from producers, importers, or users of certain POPs. Others, however, can be quite costly, such as the establishment of a special unit within the Customs Department to address illegal importation or use of POPs. As a result, it is possible that the timeframe required to develop and implement enforcement activities for regulatory controls might range from as little as three months to as much as several years. Similarly, the cost of completing this activity might vary greatly.

Frequency: Continuous.

Applicability: National (required for each country individually)

F. ACTIVITY AREA #6: TECHNOLOGY TRANSFER ACTIVITIES

Overview:

Technology transfer may be an extremely important factor in helping as many countries as possible to achieve compliance with the mandates of the POPs Convention. While it is not known if the Convention will provide resources for such activities, it is likely that they will need to occur even in the absence of funding directly from the Convention, as without such assistance, many countries may be unable to meet their obligations under the Convention. There are many different types of technology transfer activities that might be undertaken to assist developing countries and CEITs implement the

Convention. Those presented in this activity area are examples of such activities that have proven successful in transferring both knowledge and technologies in the past. They are a representative sample and are not meant to be exhaustive.

A total of six activities are presented as examples of the numerous technology transfer activities that might be undertaken under the auspices of the POPs Convention. These are presented below. It should be noted that two activities (“Establish expert groups to review POPs alternatives and policy options” and “Development of guidelines on acceptable POPs alternatives”) are general in nature, and need only be undertaken one time, and not for each country individually. It is conceivable that each of the other activities presented could be undertaken in each country individually, however many could also take place once and be applied and/or used by multiple countries.

Potential Funding Sources:

Potential sources of funding for the completion of the activities described in this activity area include:

- POPs convention financial mechanism
- Multilateral Development Banks
- Bilateral contributions from developed country governments
- Global Environment Facility (GEF)
- Manufacturers of new technologies and alternatives might be willing to fund conferences, study tours, and workshops.

Key Assumptions Used in Analysis:

A number of key assumptions were made in determining the tasks to be performed and the costs associated with implementation of each activity. These assumptions include:

- The cost analysis assumes a medium-size country. A medium-size country for this activity refers to the geographic area of the country.

Specific Activities:

Activity 6/1. Establish expert groups to review POPs alternatives and policy options.

Purpose/Goals: This activity would provide a forum for international experts on POPs and POPs alternatives to come together to discuss the merits of various POPs alternatives (both new and established) and policy options for addressing the POPs issue. The specific goal of the activity would be to have the established expert groups develop (and regularly update) a variety of guidance materials for use by country governments and other interested parties.

Potential Participants: Technical and policy experts from any country and Convention Secretariat staff.

Associated Costs: There is the potential to undertake this activity at virtually no cost. Using the model of the Montreal Protocol, experts and their employers could be asked to donate their time and cost of participation in meetings. The only costs would then be for printing and distribution of reports and other materials generated by the expert groups.

Project Implementation: Any number of expert groups might be established, depending on the perceived needs of Parties to the Convention. To begin, a Technical and Economic Assessment Panel might be formed to address primarily policy issues, and a Scientific Assessment Panel might be established to review the science issues related to POPs usage. These groups might use a format similar to that employed under the Montreal Protocol, where the groups meet approximately twice each year, and produce periodic Options Reports. These Options Reports would provide information on new developments in alternatives, updates on new policy options being employed by Parties, evaluation of the economic impacts of various policies related to POPs elimination, and a wide variety of additional information. Reports of the expert groups would then be distributed by the Convention Secretariat to developing country and CEIT governments for their reference and use.

Timeframe: Approximately 6 months to establish groups, with ongoing operation thereafter.

Frequency: Continuous.

Applicability: Global (not required for each country individually)

Activity 6/2. Development of guidelines on acceptable POPs alternatives.

Purpose/Goals: The purpose of this activity would be to provide country governments with guidance on the desirability of the various POPs alternatives available for each POP application at any given time. The goal would be to ensure that, when POPs are being replaced in any particular application, the alternatives being employed are not harmful in other ways. In other words, the guidelines would help to inform policy makers so that one problem chemical or technology is not substituted for another.

Potential Participants: Expert groups established under Activity 6/1; Convention Secretariat staff; and possibly manufacturers and distributors of alternative and the public interest community..

Associated Costs: There is the potential to undertake this activity at virtually no cost. Using the model of the Montreal Protocol, experts and their employers could be asked to donate their time and cost of participation in meetings. The only costs would then be for printing and distribution of reports and other materials generated by the expert groups.

Project Implementation: The Convention Secretariat might instruct one or more of the expert groups established under Activity 6/1 to prepare, on an application-by-application basis, a list of currently available “acceptable” or “preferred” alternatives for POPs. At the same time, these groups might indicate which alternatives are considered to be “unacceptable” or “less-preferred,” while clearly explaining the reasons for these conclusions. These lists might then be used by developing country governments in a number of ways, including as input to development of regulations and as information dissemination tools. After the initial lists are prepared for each major POPs application, the expert groups assigned to this activity might update their lists on a semi-annual basis so as to keep all information current.

Timeframe: Approximately 6 months for first report, and ongoing thereafter.

Frequency: Periodic.

Applicability: Global (not required for each country individually)

Activity 6/3. Design and implementation of demonstration projects.

Purpose/Goals: The purpose of this activity would be to illustrate the successful utilization of appropriate alternative technologies to local users of POPs. As a result, confidence in alternatives among local users would increase, creating a market for more environmentally-friendly substances.

Potential Participants: POPs focal unit or POPs focal point; local stakeholders (i.e., manufacturers and users of POPs); international implementing/funding agency; local experts; and international experts.

Associated Costs: See Project Summary below.

Project Implementation: The tasks required, timeframe, and associated costs for completing the design and implementation of demonstration projects within any particular country will vary greatly and cannot be generalized accurately here. There are literally hundreds, if not thousands, of different types of demonstration projects which might be undertaken under the auspices of the POPs Convention. The scope of these projects can range enormously, from simple substitution of one chemical for another in a larger formulation at a manufacturing facility, to the construction of an incinerator to destroy existing stockpiles of POPs being eliminated under the Convention. In the case of the first example, the timeframe for implementation might be only several months (for evaluation, testing and conversion) and there might actually be a cost savings (depending on the costs of the chemical being used and the chemical that would replace it). However, for the second example, the timeframe for development and completion is likely to be on the order of several years (including siting, permitting, design, and construction) instead of several months. Similarly, the costs associated with completing the latter activity might be extremely high. If one refers to the

example of demonstration projects implemented in countries under the Montreal Protocol on Substances that Deplete the Ozone Layer, it can be found that the projects approved to date have received funding in excess of US\$700 million from the Protocol's financial assistance mechanism (the Multilateral Fund). Furthermore, this funding often covers only part of the actual implementation costs, with the recipient enterprise paying the balance of the cost.

Following are several examples of demonstration projects that might be completed under the POPs Convention. It is important to note that these examples are general models, and that unique circumstances in each country will dictate how projects are selected and implemented.

- Construction of an incineration facility for destruction of unwanted stocks of POPs. To construct an incineration facility there are a number of tasks that would need to be completed both prior to and following the actual construction of the facility. These items might include: selection of the site, obtaining approval/licenses for construction of the facility, hiring of facility personnel, training personnel in the use and application of the technology, and informing neighbouring countries about the facility. The direct capital investment associated with construction might include: equipment costs for the incinerator itself, cost of auxiliary equipment, installation costs, cost of building construction, and site preparation. Indirect capital costs might include: construction and field expenses, contractor fees, and performance testing. Finally, operating costs might include: labour, materials, maintenance, and utilities (i.e., electricity).

The total cost of constructing an incineration facility will depend on a large number of factors such as capacity, chemical(s) being incinerated, environmental controls, etc. As a result, it is not possible to estimate the costs of such a facility here.

- Replacement of PCB-containing equipment. There are currently many different types of equipment in operation which contain PCBs. Typically, PCBs might be found in electrical equipment such as transformers and capacitors. There are several steps that should be taken in replacing PCB-containing equipment. The first step is to characterize the contaminated equipment, locate it, and determine its condition. This information will provide some history of the equipment, which will then allow programme managers to make informed decisions regarding the replacement of the equipment, its disposal, and other necessary operations. For example, if the PCB in the equipment has been diluted or has been leaking into the soil, then there might be a need to undertake specific remediation activities. After locating and characterizing the equipment, the second step is to develop an efficient process to collect and replace the contaminated equipment. Once the equipment has been collected, the third step is to transport the equipment to a facility where it can be disposed of properly. In some cases, this may involve exportation of PCB-contaminated equipment to other countries for proper disposal.

In 1996, some of the estimates for PCB disposal by commercial incineration were:

- < drummed or boxed PCB capacitor incineration: \$1.79/lb
- < PCB contaminated soil incineration: \$1.48/lb
- < drummed PCB transformer incineration (55 Gal): \$594/each
- < incineration of drummed PCB solid waste (55 Gal): \$772/each
- < drummed PCB liquids <100,000 PPM Incineration (55 Gal): \$357/each

These costs do not include the cost of the replacement equipment that is installed where the PCB-containing equipment was removed. The cost of this replacement equipment will vary greatly depending on the application.

- Transition to DDT-free malaria control. The elimination of DDT in the control of malarial pests requires substitution with some equally effective technology or combination of technologies. There are a variety of options that could be implemented in order to control malarial pests in the absence of DDT, thereby controlling the spread of malaria. These options include the following:
 - < Use of bed-nets combined with an alternative pesticide such as deltamethrin or permethrin. Although alternative insecticides are more expensive than DDT, bed-nets require less insecticide, and therefore can be cost-effective.
 - < Use of preventive measures aimed at the elimination of mosquito breeding. These might include: filling depressions, drying areas with a high water table, covering water surfaces with expanded polystyrene beads, and ensuring good drainage beneath water taps.
 - < Aerial application of significantly smaller amounts of alternative pesticides (e.g., permethrin and bacillus thuringiensis (b.t.)) in rotation to avoid the possibility of pests developing a resistance to the chemicals being used.

The costs associated with the various options for transitioning to DDT-free malaria control will vary depending on the extent of the malaria risk and the local geographic situation in any particular area. Options such as expanded use of bed-nets will be quite inexpensive, while other options may be quite costly. In the end, some combination of these and other options is likely to be employed.

Frequency: Periodic.

Applicability: Regional (to be implemented on a regional basis, but not required for each country individually)

Activity 6/4. Study tours on different POPs alternatives.

Purpose/Goals: The objective of this activity would be to provide local stakeholders (e.g., policy makers, manufacturers and users of POPs) with first-hand information on the application of available alternatives to POPs. Participation in such an activity would furnish a greater understanding of the options available, and would increase the confidence of the participants in the effectiveness of the new alternatives.

Potential Participants: POPs focal unit or POPs focal point; local stakeholders (e.g., policy makers, manufacturers and users of POPs); international implementing/funding agency; local experts; international experts in the country where the study tour would take place; public interest community; and users and manufacturers of alternatives in the country where the study tour would take place.

Associated Costs: 470 labour hours. It should be noted that this activity will also require funding for significant travel costs.

Project Implementation: Study tours could be undertaken to facilities in other countries where alternatives of interest are currently in use. Participants would have the opportunity to meet with suppliers of the alternatives and to observe the use of the alternatives under actual working conditions. It is envisioned that each study tour might last for one-week, and could include both classroom-style presentations and field visits. One-on-one meetings with suppliers of the alternatives could also be arranged in order to facilitate the development of business relationships. Effective organisation of logistical arrangements would be very important to the success of this activity.

Timeframe: Approximately 6 months.

Frequency: Periodic.

Applicability: National (required for each country individually)

Activity 6/5. Workshop for local stakeholders on available alternatives with representatives of companies supplying alternatives.

Purpose/Goals: The objective of this activity would be to build the knowledge base within a country concerning POPs alternatives, and to begin developing the business relationship needed to create a market for the alternatives within the country. It's aim is similar to that of the study tours, but this activity would take place within the home country, thereby allowing it to reach a larger audience.

Potential Participants: POPs focal unit or POPs focal point; local stakeholders (i.e. manufacturers and users of POPs); international implementing/funding agency; local experts; public interest community; and manufacturers of alternatives.

Associated Costs: 350 labour hours. It should be noted that this activity will also require funding for significant travel costs.

Project Implementation: Workshops could be organized in which local stakeholders learn about currently available POPs alternatives produced both domestically and internationally. The workshops could be led by the POPs focal unit (or POPs focal point), with representatives of domestic and international companies supplying alternatives making presentations. It is envisioned that each workshop might last for three days, and that each might involve the participation of 10 representatives from technology manufacturers. During the workshop, time could be reserved for one-on-one meetings between local stakeholders and visiting manufacturer representatives. As with the study tours, effective organisation of logistical arrangements would be very important to the success of this activity.

Timeframe: Approximately 6 months.

Frequency: Periodic.

Applicability: National (required for each country individually)

Activity 6/6. Sector-by-sector training on the application of POPs alternatives.

Purpose/Goals: This activity would provide individuals within a country with the training on alternatives to replace POPs, in an effort to increase their knowledge and expertise on how to best employ these alternatives to achieve successful results. It would differ from the workshop between stakeholders and international technology suppliers in that this training would be held for a larger group of users, and would be more focused in scope.

Potential Participants: POPs focal unit or POPs focal point; local stakeholders (i.e. manufacturers and users of POPs); international implementing/funding agency; local experts; international experts; and possibly manufacturers and distributors of alternatives.

Associated Costs: 400 labour hours.

Project Implementation: Training on the use of alternatives to replace POPs could take place through a series of 2-day workshops, organized by POPs use sector/application. The training could be led by the POPs focal unit or the POPs focal point, with local and international technical experts on the alternatives making presentations. Information presented during the training might include: an overview of the POPs issue, a general discussion of the types of alternatives available in the sector/application being addressed, a more detailed presentation

about the operation and effectiveness of the most promising alternatives, and an overview of the costs associated with conversion to the alternatives. Local logistical preparations would need to be made such as rental of a meeting space/equipment, preparation of meeting documents/materials, catering, etc.

Timeframe: Approximately 4 months.

Frequency: Periodic.

Applicability: National (required for each country individually)

G. ACTIVITY AREA #7: SUPPORTING THE INTRODUCTION OF POPS ALTERNATIVES

Overview:

It is likely over time that users of POPs may attempt to implement alternative technologies where they had previously used POPs. One of the keys to successful adoption of such technologies is the availability of both the products and service/support locally. As many of the alternative technologies may be new to some countries, these countries would need to ensure that there is a sufficient local support network set-up within local industry to handle the import, sale, distribution, and servicing of any such equipment not produced domestically. Failure to develop such a support network within local industry may result in newly purchased and imported equipment going unused in the long-run, as servicing and parts may not be easily accessible.

A total of three activities are recommended to allow for adequate local support for the introduction of POPs alternatives. These are presented below. It should be noted that one of the activities (“Development of a guidance document on supporting the introduction of POPs alternatives”) is general in nature and need only be undertaken one time, and not for each individual country. All other activities are recommended for each country.

Potential Funding Sources:

Potential sources of funding for the completion of the activities described in this activity area include:

- POPs convention financial mechanism
- Multilateral Development Banks
- Bilateral contributions from developed country governments
- Manufacturers of new technologies and alternatives.

Key Assumptions Used in Analysis:

A number of key assumptions were made in determining the tasks to be performed and the costs associated with implementation of each activity. These assumptions include:

- The cost analysis assumes a medium-size country. A medium-size country for this activity refers to the geographic area of the country.
- It is assumed that the costs for undertaking this activity for a small-size country may be 20% less than those described in the table.
- It is assumed that the costs for undertaking this activity for a large size-country may be 35% more than those described in the table.

Specific Activities:

Activity 7/1. Development of a critical evaluation of the current local capability within the country to support the introduction of new technologies/alternatives.

Purpose/Goals: The aim of this activity would be to attain a thorough understanding of the commerce conditions in a country, so that modifications made to develop the market for alternatives coincide with local circumstances. Furthermore, this activity should help foster relationships between government officials, manufacturers of alternative technologies, and local businesses. Cooperation among these major stakeholders is essential for a market transformation to the use and support of POPs alternatives.

Potential Participants: Government officials; POPs focal unit or POPs focal point; representatives of local industry; local and international experts; public interest community and manufacturers and sellers of POPs substances.

Associated Costs: 500 labour hours. It should be noted that this activity may also require funding for significant travel costs.

Project Implementation: The critical evaluation of the current local capability within the country to support the introduction of new technologies/alternatives might involve research based on calling and visiting manufacturers and sellers of POPs in order to gain a thorough understanding of the structure of the market for POPs-related technologies/substances. Specifically, the evaluation would follow POPs from their import or production through the “chain of commerce” to their ultimate end use, in an effort to characterize the manner in which sales and service for chemicals and equipment take place. For example, it will be important to ascertain whether or not end users typically import POPs directly as opposed to purchasing chemicals from a distributor. In addition, it will be vital to learn more about the local availability of equipment, spare parts, and qualified service technicians for POPs alternatives that rely on the use of equipment.

In order to develop a thorough evaluation and to facilitate support for the introduction of new technologies/alternatives, a series of meetings could be conducted between government

officials, international manufacturers of alternative technologies, and local business. During this series of meetings, the three different groups of participants could each meet separately with a facilitator in order to list the goals they would like to achieve and the activities they would like to undertake in transforming the market in question from a POPs market to a POPs alternative market. After these initial meetings, all three groups might be brought together with the facilitator to develop a list of joint goals and activities, and to begin to form the relationships necessary to continue working together to meet their goals. Finally, a plan might be developed which would clearly define the activities to be undertaken, the parties responsible for implementation, and a timetable for completion.

The resulting evaluation should help policymakers in identifying portions of the support network where additional resources might be required in order to make the use of POPs alternatives feasible.

Timeframe: Approximately 6 months.

Frequency: One-time activity.

Applicability: National (required for each country individually)

Activity 7/2. Development of a guidance document on supporting the introduction of POPs alternatives.

Purpose/Goals: The purpose of this guidance document would be to provide advice to country representatives as to the steps a country might take to undergo a market transformation so that alternatives to POPs become available to the consumer locally. The goal of the guidance document would be to ensure that the local chemical and equipment supply and servicing industries are sufficiently knowledgeable about POPs alternatives, and are able to meet the needs of users of these alternatives.

Potential Participants: Convention Secretariat staff and international experts.

Associated Costs: 280 labour hours.

Project Implementation: The development of a guidance document on enhancing the local commerce infrastructure for new technologies might include meeting with officials and experts (e.g., Montreal Protocol Secretariat officials and international finance and technology transfer experts) who have assisted in effecting similar market transformations in developing countries. Once this preliminary research is completed, those developing the document might meet to discuss how to best illustrate the acquired information. A draft and final document could then be prepared for dissemination to POPs focal units.

Timeframe: Approximately 6 months.

Frequency: One-time activity.

Applicability: Global (not required for each country individually)

Activity 7/3. Workshop for local stakeholders to facilitate the development of a local support network for the introduction of POPs alternatives.

Purpose/Goals: The purpose of this activity would be to inform local stakeholders of the changes in the market that will be required to support the introduction and use of POPs alternatives. The goal is to ensure that users are encouraged to convert to POPs alternatives and that they are able to obtain adequate materials and service when required.

Potential Participants: POPs focal unit or POPs focal point; manufacturers and distributors of POPs and related equipment; public interest community; local and international manufacturers and distributors of POPs alternatives and related equipment; international implementing/funding agency; local and international experts.

Associated Costs: 400 labour hours. It should be noted that this activity will also require funding for significant travel costs.

Project Implementation: This activity might focus around a workshop, in which the local stakeholders are informed about the results from Activity 7/1. Using the guidance document prepared in Activity 7/2 as a tool, and focusing on the areas identified in Activity 7/1 as requiring additional support, local stakeholders would be made aware of opportunities to become more involved in the support of the introduction of POPs alternatives. Most importantly, importers and distributors of chemicals and equipment could be informed about current voids in the local market, and be introduced to manufacturers of these chemicals and equipment with whom they might develop a business relationship. Similarly, service companies could learn of voids in the service market, and be informed of ways in which to enter these markets. By providing these types of business development tips through the workshop, it is likely that voids in the local market for supporting the introduction and use of POPs alternatives would be filled fairly quickly. The workshop might take place over a period of two days, and would be led by the POPs focal point or the POPs focal unit staff. Effective organisation of logistical arrangements would be very important to the success of this activity

Timeframe: Approximately 5 months.

Frequency: One-time activity.

Applicability: National (required for each country individually)

H. ACTIVITY AREA #8: DEVELOPMENT OF AN OUTREACH/INFORMATION DISSEMINATION PROGRAMME

Overview:

The POPs issue will undoubtedly be new to both the public and much of industry in many countries which must comply with the POPs Convention. Therefore, it may be necessary to educate the public and industry (especially those using or dealing in POPs) about the issue, the Convention, the country's response, and ongoing activities and progress in order to obtain support for programmes. This would include information on the public health and environmental benefits of taking action as well as the adverse consequences from not doing so. The development and implementation of a broad-based outreach/information dissemination campaign would serve this purpose.

A total of four activities are recommended for the successful development and implementation of an outreach/information dissemination programme on POPs within a country. These are presented below. It should be noted that one of the activities ("Development of outreach materials for worldwide use to increase awareness and disseminate information") is general in nature and need only be undertaken one time, and not for each individual country. Furthermore, one activity ("Creation of regional resource centres") is regional in nature and would be implemented one time in several locations, and not for each country individually. All other activities are recommended for each country.

Potential Funding Sources:

Potential sources of funding for the completion of the activities described in this activity area include:

- POPs convention financial mechanism
- Multilateral Development Banks
- Bilateral contributions from developed country governments
- Global Environment Facility (GEF)
- Manufacturers of new technologies and alternatives

Key Assumptions Used in Analysis:

A number of key assumptions were made in determining the tasks to be performed and the costs associated with implementation of each activity. These assumptions include:

- The cost analysis assumes a medium-size country. A medium-size country for this activity refers to the geographic area of the country.
- It is assumed that the costs for undertaking this activity for a small-size country may be 20% less than those described in the table.
- It is assumed that the costs for undertaking this activity for a large size-country may be 20% more than those described in the table.

Specific Activities:

Activity 8/1. Development of outreach materials for worldwide use to increase awareness of the POPs issue.

Purpose/Goals: The purpose of this activity would be to create general outreach materials that could be used worldwide to inform the public, industry, and others about issues relating to POPs. The outreach materials developed could be used and/or adapted by all countries, especially those that could not afford to develop their own unique materials for domestic outreach campaigns, with specific attention paid to particular audiences and more vulnerable segments of the population, like pesticide applicators, women and children.

Potential Participants: Convention Secretariat staff and international communications experts.

Associated Costs: See Project Summary below.

Project Implementation: The activities required, timeframe, and costs associated with the development of outreach materials for worldwide use to increase awareness of the POPs issue will vary greatly and cannot be generalized accurately here. There are hundreds of different types of outreach materials which might be used for this purpose, depending upon the intended audience and the goal of the designers. Examples of materials which might be prepared include: informational brochures, bumper stickers, posters, newspaper/magazine advertisements, videotapes, and television commercials. Obviously, there is significantly more work, time, and cost associated with the development of a video than with the development of a bumper sticker or a poster. The amount of time required for the development of any single piece of outreach materials would vary from several days in the case of a bumper sticker to several weeks or months in the case of a video. Similarly, the costs may vary greatly.

Frequency: One-time activity.

Applicability: Global (not required for each country individually)

Activity 8/2. Creation of regional resource centres.

Purpose/Goals: The goal of this activity would be to develop and maintain regional centres which would have the responsibility for furthering efforts aimed at capacity building and technology transfer, as well as disseminating information on POPs and POPs-related issues throughout the region served by the centre.

Potential Participants: Convention Secretariat staff; POPs focal units or POPs focal points; and local communications experts; public interest community; and industry groups. Information could also be linked with other information outlets, e.g., schools, databases, libraries, and health care providers.

Associated Costs: 2,160 labour hours. It should be noted that this activity will also require funding for significant travel costs, office equipment/supplies, and document printing and distribution.

Project Implementation: Regional resource centres might serve a very important role in assisting with the implementation of capacity building and technology transfer activities. In addition, these centres could serve as information clearinghouses for their regions on issues relating to POPs. They would be able to disseminate the materials prepared in many of the activities discussed in this paper, identify important regional issues that could be addressed by the focal units or focal points of the relevant countries, and facilitate general communication among focal units and focal points in the region. All of this could be done with an eye toward building capacity relating to POPs within countries in the region. In total, there might be seven such centres established: South America; Central America and the Caribbean; Southern Africa; Northern Africa; South Asia; East Asia and the Pacific; Central and Eastern Europe)The first step in establishing these centres would be to identify the entity that would house the centre in a particular region. Typically, this might be a non-governmental organisation involved in the POPs issue. After the entity is identified and a mutually beneficial arrangement is agreed upon, resources would probably be required for operation of the centre. Costs to be incurred might include staff time, supplies, mailing expenses, etc. For this cost analysis, it is assumed that one full-time staff person would be required to operate each centre.

Timeframe: Approximately 4 months to establish a centre, with ongoing operation after that time.

Frequency: Continuous.

Applicability: Regional

Activity 8/3. Development of materials for and implementation of local public outreach campaigns.

Purpose/Goals: The goal of this activity would be to prepare country-specific materials aimed at informing the public on POPs-related issues, and to carry out activities to disseminate this information as widely as possible.

Potential Participants: POPs focal unit staff or POPs focal point; local communication experts; and regional resource centre staff.

Associated Costs: See Project Summary below.

Project Implementation: As was the case for the development of general outreach materials discussed above, the development of outreach materials and implementation of local public

outreach campaigns on the POPs issue would vary greatly and cannot be generalized accurately here. The work, timeframe, and costs associated with the development of specialized outreach materials will differ at the country level for the same reasons as described above for general materials being developed for worldwide use. In addition, the work, timeframe, and costs associated with actual implementation of a local public outreach campaign would vary depending on several factors. Most important would be size and reach of the campaign. An outreach campaign may be quite extensive, using all media and saturating the market with materials. On the other hand, a campaign may also be somewhat small, with special effort made to target the campaign's limited resources toward what would be the most beneficial targets. Most likely, the level to which a campaign is taken will depend on the resources available, the level of education of the target audience concerning the issue in question, and the importance of the issue to the country government. Public outreach campaigns can be run over a specified short period of time, sometimes as short as several months, or they may be designed to operate on a continuous basis for several years or more. The costs associated with such campaigns may vary greatly.

Frequency: Continuous.

Applicability: National (required for each country individually)

Activity 8/4. Development of materials for and implementation of local industry outreach campaigns.

Purpose/Goals: The goal of this activity would be to prepare country-specific materials aimed at informing industry on POPs-related issues, and to carry out activities to disseminate this information as widely as possible.

Potential Participants: POPs focal unit staff or POPs focal point; local communication experts; and regional resource centre staff.

Associated Costs: See Project Summary below.

Project Implementation: The development of outreach materials and implementation of a local industry outreach campaign on POPs within a country would vary greatly and cannot be generalized accurately here. The options and potential variations in terms of work required, timeframe, and costs are the same as those described immediately above for similar campaigns aimed at the general public.

Frequency: Continuous.

Applicability: National (required for each country individually)
