

Handbook for effective participation in the work of the POPs Review Committee

**Persistent Organic Pollutants Review Committee
(POPRC)**



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Preface

At the third session of the Conference of the Parties the Secretariat was mandated to undertake activities to assist Parties which are developing countries or countries with economies in transition (Decision SC 3/9). Those included the development of a handbook and assistance in its use, help in accessing the internet for countries that lacked adequate connections and development of regional workshops for current and recently appointed members of the POPs Review Committee (POPRC). The Committee discussed the issue at its third session and agreed to establish an intersessional working group to work with the Secretariat to develop the handbook. In addition to the handbook itself activities will be undertaken to support developing countries and countries with economies in transition to make effective use of the handbook. The handbook is a living document and will be updated as further experience is gathered. The present version describes the activities of the POPRC and the practices and approaches developed by the POPRC up to and including the 4th session in October 2008. In matters of dispute the text of the Convention and the Decisions of the Conference of the Parties and of the POPRC take precedence.

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Secretariat of the Stockholm Convention on Persistent Organic Pollutants
United Nations Environment Programme
International Environment House
11-13, chemin des Anémones
CH-1219, Châtelaine, Geneva, Switzerland
ssc@pops.int - www.pops.int

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Acronyms

AHJWG	Ad Hoc Joint Working Group
AMAP	Arctic Monitoring and Assessment Programme
ATSDR	Agency for Toxic Substances and Disease Registry
CAS	Chemical Abstracts Service
CEG	Criteria Expert Group
CIEN	UNEP Chemical Information Exchange Network
COP	Conference of the Parties
C-OBDE	Commercial octabromodiphenyl ether
C-PBDE	Commercial pentabromodiphenyl ether
ECETOC	European Centre for Ecotoxicology and Toxicology of Chemicals
EU	European Union
GC	Governing Council
HBB	Hexabromobiphenyl
HCB	Hexachlorobenzene
HCH	Hexachlorocyclohexane
ICCM	International Conference on Chemicals Management
IFCS	Intergovernmental Forum on Chemical Safety
IGO	Intergovernmental Organisation
INE	National Institute of Ecology of Mexico
IOMC	Interorganizational Programme for the Sound Management of Chemicals
NGO	Non-Governmental Organization
NITE	National Institute of Technology and Evaluation of Japan
OECD	Organization for Economic Cooperation and Development
PCBs	Polychlorinated Biphenyls
PFOS	Perfluorooctane sulfonate
PFOSF	Perfluorooctane sulfonyl fluoride
POPRC	Persistent Organic Pollutants Review Committee
POPs	Persistent Organic Pollutants
PRTR	Pollutant Release and Transfer Register
RME	Risk Management Evaluation
SAICM	Strategic Approach to International Chemicals Management
SC	Stockholm Convention
SMOC	Sound Management of Chemicals
ToR	Terms of Reference
UN	United Nations
UNECE	United Nations Economic Commission for Europe
UNEP	United Nations Environment Programme
UNIDO	United Nations Industrial Development Organization
US EPA	United States Environmental Protection Agency

Executive summary

The POPs Review Committee was set up by the Conference of the Parties to the Stockholm Convention at its first session in 2005. Since then the Committee has met four times and accumulated a significant amount of experience in processing nominations for new chemicals to be listed under the Convention. At the same time the Committee has noted the need for support to some members and Parties from developing countries and countries with economies in transition to allow them to more fully participate in the work of the Committee. This handbook is a response to that need.

The handbook describes briefly the background and history of the POPs Review Committee. The mandate and membership of the Committee is discussed as well as its terms of reference and decision making. The handbook then describes the nomination process in detail step by step, with reference to the relevant text in the Convention. The Committee's way of working by intersessional working groups is described in some detail to give the interested Parties a better understanding of how they could participate in the process. In addition to the description of the process, the work so far is noted. Each subchapter ends with suggestions concerning what Parties and other stakeholders should or could do at each step to prepare them better to assist the Committee in its work and to participate more fully. A description of the procedure for appealing against Committee decisions and the conflict of interest issues are added for completeness. The roles and responsibilities of members, non-member Parties and other observers is delineated. The different implications of listing a chemical in Annexes A, B and/or C under the Convention are described.

The handbook then describes and discusses the experience gathered so far from the work of the Committee, both in terms of more generic issues e.g. the overall progress of the work and the rate of successfully concluded chemicals at different steps, as more specific issues, e.g. approaches to isomers and precursors, naming of commercial mixtures and how to consider bioaccumulation data of various types. Some issues to be continued are also mentioned e.g. the completeness of the risk profile and the risk management evaluation. Finally linkages to other international processes e.g. the Rotterdam Convention Chemicals Review Committee are considered.

A methodology for identification and compilation of information in Annexes E and F is also outlined in the text. The methodology describes in detail approaches that Parties and others could take to meet the requests from the Committee for information according to Annexes E and F. The roles of different stakeholders and how they could interact e.g. through a Stakeholders Committee is discussed. Some variations to the methodology are also discussed e.g. when a chemical is already banned or has not been used by a Party.

Relevant texts from the Convention and from COP decisions are attached to the handbook for reference.

The handbook should hopefully make it easier for new members of the Committee as well as for Parties and observers to contribute to the process through more interactive participation and experience sharing.

1. Introduction

The Stockholm Convention is a global treaty to protect human health and the environment from persistent organic pollutants (POPs). POPs are chemicals that remain intact in the environment for long periods, become widely distributed geographically, accumulate in living organisms and are toxic to humans and wildlife. POPs may travel long distances through air, water or organisms and can cause damage wherever they travel. In implementing the Convention, Governments will take measures to eliminate or reduce the releases of POPs into the environment.

The Persistent Organic Pollutants Review Committee (POPRC) is a subsidiary body to the Stockholm Convention, established pursuant to paragraph 6(d) of Article 19 of the Convention. The mandate of the POPRC is to perform the functions assigned to it by the Convention, including the scientific review of the proposals and related information submitted by Parties to the Convention for listing new chemicals in Annex A, B, and/or C according to Article 8 of the Convention and to make recommendations to the Conference of the Parties.

2. The POPRC in the Stockholm Convention negotiations

2.1. The roots

UNEP Governing Council decided in May 1995 (Decision 18/32) to invite the Inter-Organization Programme for the Sound Management of Chemicals, working with the international Programme on Chemical Safety, and the Intergovernmental Forum on Chemical Safety (IFCS), with the assistance of an appropriate ad hoc working group, to initiate an expeditious assessment process starting with the twelve POPs and to develop recommendations and information on international action, including such information as would be needed for a possible decision regarding an appropriate international legal mechanism on persistent organic pollutants. It further invited the IFCS to develop, based on the results of the assessment process and the outcome of the Washington Conference to Adopt a Global Programme of Action for the Protection of the Marine Environment from Land-based Activities, "recommendations and information on international action, including such information as would be needed for a possible decision regarding an appropriate international legal mechanism". The IFCS ad hoc Working Group on POPs reported back to the Governing Council (GC) in January 1997 and concluded that international action, including a global legally binding instrument, is required to reduce the risks to human health and the environment arising from the release of the 12 specified POPs that a process will be required to develop science-based criteria and a procedure for identifying POPs in addition to the 12 specified in Decision 18/32 as candidates for future international action and recommended that an expert group be established to carry out this work.

The Council concluded (Decision 19/13C) that international action, including a global legally binding instrument, was required to reduce the risks to human health and the environment arising from the release of the twelve specified persistent organic pollutants and decided to initiate a negotiating process for the development of the instrument.

The Council also noted the need to develop science-based criteria and a procedure for identifying additional persistent organic pollutants as candidates for future international action and requested the intergovernmental negotiating committee to establish, at its first meeting, an expert group to carry out this work. The Council advised that the process should incorporate criteria pertaining to persistence, bioaccumulation, toxicity and exposure in different regions and should take into account the potential for regional and global transport including dispersion mechanisms for the atmosphere and the hydrosphere, migratory species and the need to reflect possible influences of marine transport and tropical climates.

2.2. The Criteria Expert Group

The first session of the Intergovernmental Negotiating Committee (INC), meeting in Montreal in June 1998, established a subsidiary body called the Criteria Expert Group (CEG) to develop criteria for POPs according to the mandate given by the United Nations Environment Programme (UNEP) GC Decision 19/13C. The CEG, co-chaired by Ms. Fatoumata Yallow Ndoye from the Gambia and Dr. Reiner Arndt from Germany and with Dr. Jarupong Boon Long from Thailand as Rapporteur, met twice, in Bangkok in October 1998 and in Vienna in June 1999, and reported on the successful outcome of its deliberations to INC-3 in September 1999. The outcome of the CEG was incorporated in the further negotiations of Articles 8 and 19 and Annexes D, E and F.

In developing the Annexes D, E and F and suggesting a procedure for identifying additional POPs the CEG considered a range of issues related to the task of the future body that would assess possible candidates i.e. the POPRC. Some key interpretations and conclusions of the group that preceded the POPRC are given below:

- The term "flexible" as used e.g. in a CEG early draft of paragraph 3 of Article 8 should be taken to mean that a proposal might be considered to have satisfied the criteria if one of the criteria was marginally not met but two or more other criteria were amply met.
- Organo-metallic chemicals were organic chemicals and therefore should fall within the scope of the future convention.
- The assessment process undertaken by any subsidiary body or bodies under the convention should include the consideration of transformation products of that substance that possessed POPs characteristics as defined in the convention. In that regard, Parties should be able to nominate organic substances that were not in themselves POPs, but whose transformation products satisfied the criteria established under the future convention.
- The terms "toxicity" and "ecotoxicity" should be interpreted broadly for use within the future Convention. Those terms were intended to cover a broad scope of adverse end-points as might be determined in a variety of *controlled in vivo* and *in vitro* laboratory studies, field studies of biota, and epidemiology studies. Furthermore, effects observed or reported could be associated with a variety of single, multiple, intermittent or continuous exposures, could be immediate or delayed, or could be short-term or chronic in their duration.

The final outcome of the work of the CEG, after due consideration by the INC, is reflected in Articles 8 and 19, paragraph 6 and in the Annexes D, E and F. The interpretations and conclusions of the CEG informed the further work of the INC but were not incorporated as such into the final text. The interpretations remain those of the CEG alone and should not be construed to reflect accepted readings of the final text.

2.3 Decisions of the Conference of the Parties on the POPRC

At its first session in Punta del Este in Uruguay, May 2005, the Conference of the Parties of the Stockholm Convention decided to establish the POPs Review Committee and agreed on its Terms of Reference (ToR) (*See also Appendix 2 of the handbook: Decision SC-1/7*). The ToR included issues such as the mandate of the Committee, its membership, the role of observers, decision making in the Committee etc. It also agreed to designate Dr. Reiner Arndt from Germany as Chair of the Committee and on which countries would nominate experts to the Committee.

The COP also decided on procedures for preventing and dealing with conflicts of interest within the POPRC. (See also Appendix 2 of the handbook: Decision SC-1/8)

3. The POPs Review Committee

3.1 Mandate of the Committee

Article 19, paragraph 6

The Conference of the Parties shall, at its first meeting, establish a subsidiary body to be called the Persistent Organic Pollutants Review Committee for the purposes of performing the functions assigned to that Committee by this Convention.

The Committee was established by the first session of the COP, held in Punta del Este, Uruguay, in May 2005. According to paragraph 1 of the Annex to Decision SC-1/7, the Committee shall perform the functions assigned to it by the Convention. In practice, and until further decision by the COP, this means the functions described in Article 8, paragraphs 3 to 9. Possible further tasks that the COP might consider could include: reviewing the requests for extension of specific exemptions for a Party; performing the final overall assessment of the effectiveness evaluation for submission to the COP; and possibly others

3.2 Committee membership

Article 19, paragraph 6, (a)

The members of the Persistent Organic Pollutants Review Committee shall be appointed by the Conference of the Parties. Membership of the Committee shall consist of government-designated experts in chemical assessment or management. The members of the Committee shall be appointed on the basis of equitable geographical distribution.

The COP has decided (Decision SC-1/7) that the members of the Committee shall be appointed by the Conference of the Parties on the basis of equitable geographical distribution, taking into account gender and the need for a balance between different types of expertise. Each regional group proposes to the COP experts nominate by countries of region.

The Committee has 31 members and the regions are represented as follows:

- African States: 8
- Asian and Pacific States: 8
- Central and Eastern European States: 3
- Latin American and Caribbean States: 5
- Western European and other States: 7

Members of the Committee shall be government-designated experts in chemical assessment or management from Parties. When designating experts, Parties within a region shall have due regard to a balance between different types of expertise and between genders, and ensure that expertise in health and environment is represented. It is important that Parties in regions consult when designating experts for the Committee to ensure that the right mix of expertise is available from the region.

Parties shall provide curricula vitae, to be submitted to the Conference of the Parties, for the designated experts. Based on these curricula the COP confirms their membership.

Each member serves for four years. Governments who wish to nominate experts to the Committee should to the extent possible ascertain that the expert can serve the full term. If a vacancy arises in an intersessional period it shall be filled in accordance with what has been agreed in the region. As a first step, the Party in question should contact their regional representative in the Bureau of the COP. Regions have the opportunity to nominate the same expert for a second period. In this way the continuity of the Committee is further strengthened

In order to promote an orderly rotation of membership, for the first appointments, one half of the members of each region was nominated for an initial term of two years, and the remaining members were nominated for an initial term of four years, commencing from the date of the second meeting of the Conference of the Parties in May 2006. Thus, terms run from May of even years, 2008, 2010, 2012 etc. This means that, starting in May 2008, half of the membership of the Committee will be renewed every two years. Since the COP meets every second year nominations of new members will be a standing issue on each COP agenda.

3.3 Parties and Observers

Decision SC-1/7: paragraph 13

The meetings of the Committee shall be open to:

- (a) Parties to the Convention, which shall be treated as observers in accordance with the rules of procedure of the Conference of the Parties for the purpose of their participation in the committee;
- (b) Observers, in accordance with the rules of procedure of the Conference of the Parties.

Observers play an important role in the work of the POPRC. They are mentioned several times in Article 8 of the Convention and their input into the process, in particular in the development of the risk profile and the risk management evaluation is often crucial. It should be noted that all participants in the Committee meetings that are not members of the Committee are treated as observers, including representatives of Parties to the Convention, which are not members of the Committee. As further described below, the observers may participate actively in the intersessional work of the Committee.

3.4 Terms of reference

Article 19, paragraph 6, (b)

The Conference of the Parties shall decide on the terms of reference, organization and operation of the Committee.

The COP decided (Decision SC-1/7) at its first session in Punta del Este on the Terms of Reference for the POPRC (*see Appendix 2 of the handbook*). The ToR addresses issues e.g. mandate, membership in the Committee, the nomination of experts by governments, invited experts, who are invited to assist the Committee in its deliberations, the participation of observers, election of chair and officers, conflict of interest, confidentiality of data, administrative and procedural matters, work plans, meetings, languages at meetings and for documents etc. It should be noted that the Committee meets in all the UN languages and that all meeting documents are translated into the UN languages. The technical documents

should be distributed three months before each meeting, which means that they must be submitted to the Secretariat well in advance of that to allow for translation.

Issues left to the discretion of the Committee are e.g. its internal work procedures and the specific approaches for the actual assessment of the draft documents on screening data, risk profiles and risk management evaluations. As will be seen below, in assessing the nominated substances the Committee has come across and addressed several issues of a general nature, e.g. how to handle isomers and precursors and how to assess bioaccumulation. For each of these issues the Committee has reported back on the outcome of its deliberations to the COP to seek its advice and, as appropriate, endorsement for its policy. As the Committee evolves, more and more of the approaches which the Committee has used for its decisions will be expressed in writing to assist and guide future members of the Committee in their work and to maintain consistency in the decisions of the Committee.

3.5 Decision making in the Committee

Article 19, paragraph 6, (c)

The Committee shall make every effort to adopt its recommendations by consensus. If all efforts at consensus have been exhausted, and no consensus reached, such recommendation shall as a last resort be adopted by a two-thirds majority vote of the members present and voting.

Decision SC-1/7, paragraph 33

The Committee shall make recommendations to list chemicals in Annexes A, B or C of the Convention to the Conference of the Parties. Any such recommendation from the Committee shall provide reasons as well as any dissenting views and relevant supporting documents.

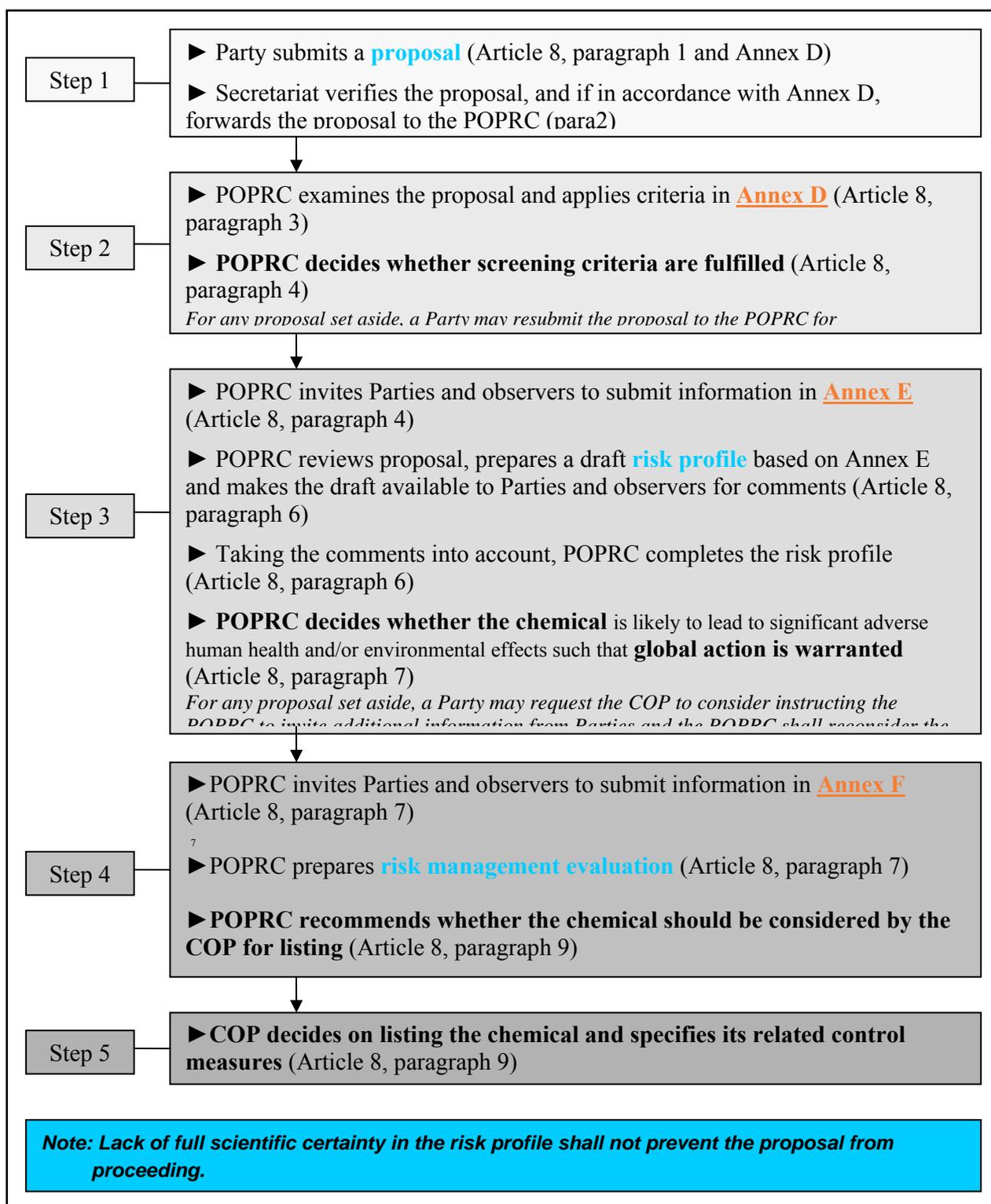
The POPRC aims at consensus in decision making. One obvious reason for this is that decisions agreed by everyone are more likely to be followed by everyone. Decisions taken by consensus are also easy to convey to the COP. It has, however, been foreseen in the Convention that the Committee may not always reach consensus. There might be instances when members cannot agree e.g. on whether to recommend a certain substance for listing or in which Annex is should be listed. The terms of reference also states that any dissenting views should accompany a recommendation not taken by consensus.

Up until the 4th session the Committee had not resorted to formal voting on any issue. The Chair had a couple of times sounded out the Committee by a show of hands on a contentious issue but this was then used to formulate a decision for which there would be consensus. However, at the 4th session, there was substantial discussion on whether to take up the proposal to list a chemical for which discussions were deferred at the previous meeting since backup information was not available to the Committee at that meeting. There was also disagreement on whether that substance had fulfilled the screening criteria in Annex D. These issues could not be resolved by consensus of the Committee. The Committee finally voted twice, first to decide to discuss the proposal for the substance; and second to decide that the same substance should move from the Annex D screening stage to the Risk Profile stage. Both decisions were taken with more than a two-thirds majority.

4. The Chemical review process

The Convention has been written with the intent that all Parties, developed and developing, should be able to nominate substances. Once nominated, the process whereby the substance proceeds to become recommended by the Committee for inclusion under the Convention involves several steps:

Process for reviewing a proposal for listing a chemical according to Article 8 of the Convention



No substance is like any other, they are all individuals and present specific problems. Nevertheless, during the course of the work of the Committee over the first few years some general observations may be drawn from the work so far which may assist Parties who are considering nominating a substance or who want to become more closely involved with the process. Special attention has been paid to the process of information collection to assist Parties in gathering data for a substance.

4.1 Nominating a substance

Article 8, paragraph 1

A Party may submit a proposal to the Secretariat for listing a chemical in Annexes A, B and/or C. The proposal shall contain the information specified in **Annex D**. In developing a proposal, a Party may be assisted by other Parties and/or by the Secretariat.

POPs are substances with some common characteristics, they are persistent, bioaccumulating, travel long distances and are harmful to human health and/or the environment. Some national, regional and global organizations have developed databases with substances that they consider fulfil either the criteria in **Annex D** (see *Appendix 1 of the handbook*) or similar criteria.

Nomination-1: Identification of a candidate POP

As a first step a Party may wish to get acquainted with the universe of substances that share some or all the criteria in Annex D. A search in available international databases may give interesting information. At the request of the Interorganizational Programme for the Sound Management of Chemicals (IOMC) the Organization for Economic Cooperation and Development (OECD) has developed an Internet portal on chemical databases. (<http://webnet3.oecd.org/echemportal/>)

Several POPs are chemicals still in commerce and may be used or appear in products used by a Party. Parties who have access to PRTRs (Pollutant Release and Transfer Register) may find these useful to gather further information on their various applications and uses. For those who do not have such tools, it might still be worthwhile to identify companies that manufacture or import chemicals.

Only a limited number of countries are major producers of chemicals. For most small and medium-sized countries, developed and developing, the majority of chemicals on the market are imported as such or formulated from imported bulk chemicals. As a first step, therefore, it would be useful to establish contacts and set up a dialogue with importers of chemicals to get an overall picture of the national situation and also to establish lists or registers of importers of chemicals to identify possible POPs candidates.

When a Party has identified a possible candidate POP based on information at hand, care should be taken that the information on the substance is relevant and adequate and of sufficient scientific quality. The information should address all the criteria in paragraph 1 of Annex D and include a statement of concern according to paragraph 2. The proposing Party shall also, in accordance with paragraph 3, to the extent possible and taking into account its capabilities, provide additional information to support the Committee review of the proposal (Annex D). To facilitate an open review process the information should be publicly available. Scientific data from peer-reviewed journals should have the highest priority. Peer-reviewed assessments produced by national, regional or global organizations and based on primary scientific data, what is sometimes referred to as “grey literature”, may also be used.

Nomination-2: Preparation of nomination

When a Party believes that, in its view, the substance fulfils the POPs criteria according to Annex D and should be considered for listing under the Convention, it needs to pull together the necessary information to support the nomination. At this stage such information need not be extensive. In principle, a short summary of the relevant properties and effects of a substance with supporting references could be adequate for the first screening exercise, taking into account the requirements of paragraph 2 and 3 of Annex D. . It should be stressed, however, that the prerequisite in paragraph 3 to provide additional

information is conditioned by the capability of the Party to provide such information, which would allow for a quicker process within the Committee.

The Convention foresees that some Parties might need assistance in preparing a nomination, aside from input received from their normal domestic processes. Accordingly Article 8, paragraph 1, provides that “in developing a proposal, a Party may be assisted by other Parties or the Secretariat”. This provision has already been used by one Party for three closely related substances. Further in Annex D, paragraph 3, “in developing such a proposal, a Party may draw upon technical expertise from any source”. This latter provision widens the scope of who may support a Party in its development of a proposal and could cover expertise from any source including NGOs.

The nomination should be sent to the Secretariat of the Convention, preferably together with an accompanying letter signed by a high level government official. The letter could state the Party’s wish to nominate the substance and attach the information specified in Annex D.

According to the Terms of Reference for the Committee all the technical documents should be distributed three months before the meeting. In order for a nomination by a Party to be considered at the next session of the Committee it is advisable to submit it to the Secretariat at least five months in advance of the meeting. The nomination should contain a letter from the government nominating the substance and supporting documents. A summary in English of no more than 20 pages should also be provided. Meeting times for the Committee are listed on the Stockholm Convention website.

Output of the nomination stage:

- A nomination with supporting documents is available at the Secretariat
- Parties are informed about the nomination

What Parties could do to inform the discussion on Annex D:

- Identify if the nominated substance is produced, used, imported or exported by the Party by searching available domestic and other data sources, consulting with stakeholders etc.
- Check whether they are in possession of additional information with respect to Annex D that may assist the Committee at the screening stage including ensuring the quality of the information
- As appropriate, establish lists or registers of importers of chemicals

What observers could do:

- Check whether they are or have been manufacturing, formulating or using the substance (observers from the industrial sector)
- Check whether they have additional information with respect to Annex D that may assist the Committee at the screening stage including ensuring the quality of the information

4.2. The screening process

4.2.1 Verification

Article 8, paragraph 2

The Secretariat shall verify whether the proposal contains the information specified in Annex D. If the Secretariat is satisfied that the proposal contains the information so specified, it shall forward the proposal to the Persistent Organic Pollutants Review Committee.

When the nomination arrives at the Secretariat the first task of the Secretariat is to check whether the nomination contains all the necessary information for the screening process by the Committee. The type of information is specified in **Annex D**. The Secretariat check for completeness is *i.a.* to ensure that the Committee does not use its limited time on nominations that are incomplete. It should be noted that the Secretariat only verifies whether the information is present or not, while the check of the scientific rigour and strength of the information is done by the Committee as part of the screening process. A proposal that contains all the necessary information may still be turned down by the Committee on substantive issues.

From experience:

For all the twelve chemicals nominated to date the Secretariat has verified that the nominations contains the information specified in Annex D.

Output of the verification process:

- The nomination contains the information required in Annex D
- The proposal is sent to the Committee
- Parties are informed through the Secretariat on the Convention website that the proposal has been forwarded to the Committee

What Parties could do:

- Identify if the nominated substance is produced, used, imported or exported by the Party by searching available domestic and other data sources, consulting with stakeholders etc.
- Start to identify information as specified in Annex E to prepare for the next stage

What observers could do:

- Check whether they are or have been manufacturing, formulating or using the substance (observers from the industrial sector)
- Start to identify information as specified in Annex E to prepare for the next stage

4.2.2 Screening by the Committee

Article 8, paragraph 3

The Committee shall examine the proposal and apply the screening criteria specified in Annex D in a flexible and transparent way, taking all information provided into account in an integrative and balanced manner.

A nomination that has been verified by the Secretariat to contain the necessary information will then be screened by the Committee at one of its meetings. The proposing Party is given the opportunity to present the nomination to the members of the Committee. The members may ask questions for clarification or ask for supplementary information. Then there is a first discussion of the nominated substance in the Committee, where the issues to be further addressed are identified.

The Committee then sets up an open-ended contact group to discuss the nomination and to examine whether the substance fulfils the criteria in Annex D. The contact group is open to observers, e.g. Parties not members of the Committee, non-Parties, NGOs and others. Each contact group is chaired by a member of the Committee. The contact group may identify critical issues to discuss e.g. whether all criteria are numerically met, which substances are included in the nomination etc. The contact group is also a useful forum to identify additional information to that provided by the proposing Party e.g. from industry and environmental NGOs that may support and strengthen the data in the submission.

Once the chair of the contact group feels confident that all issues related to the substance have been identified and addressed, he may close the contact group. The substance will then be further considered in a drafting group. The drafting group, which consists only of members of the Committee, will then draft an evaluation and a decision on the substance for the Committee. The evaluation should address all the criteria in Annex D and conclude for each criteria whether it has been fulfilled or not. The draft evaluation contains an overall conclusion on whether the requirements in Annex D have been fulfilled including information according to paragraph 2 of Annex D, where possible.

From experience:

Eleven of the twelve nominated substances have successfully passed the screening process by the Committee, one of them only through a vote by the Committee. This substance had first been deferred for consideration by the Committee, since the backup information was not available to the Committee at the meeting at which it was first proposed. For the twelfth substance the technical documents were not available three months in advance of the meeting and the consideration of the substance was deferred to a future meeting.

In the screening process for the eleven substances to date, numerous issues have been identified and brought to the COP for information and/or endorsement. Issues include:

- How to define a substance that appears only as part of a commercial mixture or mixtures;
- How to address isomers of a substance, including those that are produced for their own sake;
- How to address precursors that are not in themselves POPs, but which degrade to a substance that is a POP.

Other issues relate to the interpretation of scientific data, e.g. data on bioaccumulation derived by studies not using OECD methods, data from monitoring when actual data on degradation in various media are missing etc. and how to compare toxicity and ecotoxicity with detected or predicted levels. Some of these issues will be further discussed below.

4.2.3 Committee decision on screening criteria

Article 8, paragraph 4

If the Committee decides that:

- (a) It is satisfied that the screening criteria have been fulfilled, it shall, through the Secretariat, make the proposal and the evaluation of the Committee available to all Parties and observers and invite them to submit the information specified in **Annex E**; or
- (b) It is not satisfied that the screening criteria have been fulfilled, it shall, through the Secretariat, inform all Parties and observers and make the proposal and the evaluation of the Committee available to all Parties and the proposal shall be set aside.

Based on the evaluation a draft decision for a substance is presented to the plenary, further discussed by all members of the Committee and left to the members to agree on whether it fulfils the criteria in Annex D or not. The Committee then decides on the substance and in so doing gives the reason for its decision. The decision forms part of the report of the meeting and is communicated to Parties and observers together with the evaluation and with a request to submit information as specified in Annex E for substances for which the Committee has been satisfied that they fulfil the criteria in Annex D. In the case that the Committee is not satisfied, see further section 4.5.

From experience:

All substances that have been examined to date with reference to the criteria in Annex D have been evaluated to fulfil the screening criteria and consequently passed on to the next step in the process, the development of the risk profile. For one substance a vote had to be taken to on whether the screening criteria were fulfilled to allow the substance to move on to the risk profile stage. The lesson to draw from this is that Parties seems to have exhibited judgement in nominating candidate substances for the Convention. From an efficiency point of view, no time has so far been spent in the Committee on inadequate nominations.

Output of the screening process:

- Decision that the substance fulfils the Annex D criteria
- Request to all Parties and observers to submit information specified in Annex E

What Parties could do:

- Identify, by searching available domestic and other data sources, consulting with stakeholders etc. relevant information and submit it, as appropriate, as specified in Annex E
- Start the process to identify uses, alternatives, cost-benefit issues, socio-economic considerations etc. in their country to prepare themselves for the next stage

What observers could do:

- Check whether they are or have been manufacturing, formulating or using the substance (observers from the industrial sector)
- Check whether they have information as specified in Annex E and submit it, as appropriate, to assist the Committee in developing the risk profile

4.3 Developing the risk profile

4.3.1 Identification and compilation of the information specified in Annex E

Article 8, paragraph 4

If the Committee decides that:

- (a) It is satisfied that the screening criteria have been fulfilled, it shall, through the Secretariat, make the proposal and the evaluation of the Committee available to all Parties and observers and invite them to submit the information specified in **Annex E**; or
- (b) It is not satisfied that the screening criteria have been fulfilled, it shall, through the Secretariat, inform all Parties and observers and make the proposal and the evaluation of the Committee available to all Parties and the proposal shall be set aside.

As soon as the meeting of the POPRC is over the Secretariat communicates the decisions on the nominated substances together with a request for information according to Annex E (*see Appendix 1 of the handbook*). This request is sent to all Parties and observers to allow for the widest possible search for relevant information. The Secretariat also distributes a **format*** for submission of information agreed to by the Committee (**see also: Appendix 3 of the handbook*).

The Annex E format is intended to provide a uniform format for the submissions. It addresses the different items listed under Annex E for which information is sought and gives some further information on how the form should be filled in. Experience with the form has shown that there are areas for improvement in order to make the form more clear and unambiguous. The POPRC plans to look into revising the form with a view towards making it easier to use by countries.

Parties and observers that use the format provided greatly facilitate the task of the drafters, while information received in other formats or as free text is more cumbersome for the drafter to consider and, as appropriate, incorporate. The information on a substance submitted by Parties and observers to the Secretariat is transferred to the chair, drafter and other members of the working group for that substance and is also placed on a temporary website accessible to the members of the working group.

Once the POPRC has invited the Parties to submit the information specified in Annex E, the following approach is offered as an example of steps that could be taken to identify and gather such information at national level.

Possible national level approach

4.3.1-1 Creation of an ad hoc working group and Executive Unit

Considering that databases containing the information required in Annex E may not be available or the fact that this information may be scattered in different databases managed by different sectors, or the need to select, analyze or update such information in order to make it accessible, it might be useful for a Party to request those domestic sectors that could potentially have this information to facilitate its identification. Taking advantage of the National Implementation Plan committee normally formed by a Party to develop its plan, an ad hoc working group may be established to support the work foreseen in the POPRC (i.e. gather information required in Annex E).

The stakeholders participating in this ad hoc working group should be those considered as the main sources of information for this phase, and also as those that will mainly be concerned by the eventual inclusion of the chemical in the Convention. The following chart suggests sectors to be considered and their possible functions to accomplish this task (e.g. support the POPRC work):

In compliance with the North American Regional Action Plan (NARAP) for Lindane and other HCH isomers, Mexico put together a stakeholders committee to develop a national diagnostic on lindane in order to evaluate the feasibility to restrict or eliminate its use. The project was financed and coordinated by the National Institute of Ecology of Mexico (INE), which constitutes the technical unit of the Federal Environment Ministry. This committee included officials from several agencies which participate in the process of authorizing the registration, use and trade of pesticides in the country; mainly the Ministries of Health, Environment, Finance (through its customs office), Economy and Agriculture. Other relevant stakeholders which participated actively in this project included members from industry associations (i.e. agrochemical sector), as well as non-governmental organizations focused on the protection of indigenous people exposed to pesticides. Furthermore, scientific input (e.g. monitoring data and risk assessment) was provided through the participation of several experts from the academic sector. The national diagnostic on lindane can be consulted at: http://www.ine.gob.mx/dgicur/sqre/descargas/el_lindano_en_mexico.pdf

Table 1: Possible sectors for ad hoc working group and their possible functions to accomplish this task

Sector	Areas	Functions	Relevant groups
GOVERNMENT	<ul style="list-style-type: none"> Environmental 	<ul style="list-style-type: none"> Environmental protection against risks generated by chemicals and their residues; definition of environmental policies and regulations on chemicals, and compliance with international environmental conventions and treaties. 	<ul style="list-style-type: none"> Decision makers and technical staff involved in the management of chemicals and their residues. Staff involved in the implementation of other international conventions on chemicals, such as the Rotterdam and Basel Conventions and the Strategic Approach for International Chemicals Management. (SAICM).
	<ul style="list-style-type: none"> Health 	<ul style="list-style-type: none"> Protection of workers, users and the public's health due to exposure to chemicals and their residues, and compliance with international treaties and conventions on human health. 	
	<ul style="list-style-type: none"> International trade (imports and exports) Customs and customs laboratory 	<ul style="list-style-type: none"> Control over goods that are brought into or taken out of the country. 	
	<ul style="list-style-type: none"> Economy and Finance 	<ul style="list-style-type: none"> Evaluation and analysis of the economic impact due to trade control of certain chemicals. 	
	<ul style="list-style-type: none"> Agriculture 	<ul style="list-style-type: none"> Control over the use of agricultural pesticides and enforcement of the limits set for pesticide residues in food. 	
INDUSTRY AND TRADE	<ul style="list-style-type: none"> Producers and/or formulators of chemicals, including agrochemicals Industrial sectors as final users of chemicals Distributors and traders Importers and exporters Waste treatment companies 	<ul style="list-style-type: none"> Groups that abide by regulations on production, trade, use, import, export, final disposal of chemicals and the management of their residues. 	<ul style="list-style-type: none"> Representatives of the industrial and trade sector, such as industrial and trade associations, company owners, service providers and users.
CIVIL SOCIETY	<ul style="list-style-type: none"> Civil organizations related to the protection of health and/or environment Community groups involved in the protection of vulnerable population such as children, women and indigenous people 	<ul style="list-style-type: none"> Representatives of the citizens in order to express their opinion about the management of chemicals and their residues. 	<ul style="list-style-type: none"> Representatives of the civil associations and communities.

Sector	Areas	Functions	Relevant groups
ACADEMIA AND RESEARCH CENTERS	<ul style="list-style-type: none"> Universities and centers that carry out research on chemicals (characteristics, uses and effects, among others) 	<ul style="list-style-type: none"> To provide scientific knowledge that supports control measures for the management of chemicals and their residues. 	<ul style="list-style-type: none"> Researchers with expertise in persistent organic pollutants.

The ad hoc working group would be coordinated by an Executive Unit that would have the task to identify and invite key representatives from relevant sectors in order to constitute the ad hoc working group. The Executive Unit would also have the responsibility to compile and analyze the information gathered and fill out the Annexes E and F forms. It is suggested that the national agency, which is designated as a focal point ensuring compliance with the Convention, should assign the role of the Executive Unit to an office linked or dedicated to research on hazardous chemical substances. This is due to the fact that the information to be identified and gathered is mainly technical, so a thorough analysis and synthesis of such information is required.

At a first meeting of the ad hoc working group, background information may be presented in relation to the responsibility and importance for the country to participate in the review process aimed at including new substances in the Convention. As a result of this presentation, members would be encouraged to engage and participate actively by providing the information requested, taking into account the possible benefits to human health and the environment, and the possible socioeconomic repercussions in the country as a result of the implementation of control measures, should the substance proceed to the risk management stage.

During stakeholders meetings in Mexico, members of the group expressed their concerns, doubts and recommendations on the potential impacts resulting from the eventual elimination or restriction on the use of lindane in the country. Additionally, several gaps and needs of information were identified and which required to be covered in order to make a decision on the feasibility of these control measures. However, the availability of potential substitutes for some of its uses indicated a high probability to eliminate or restrict its use. The committee members agreed to share any additional information, which was available in its sector to develop the diagnostic on lindane, which constituted one the sources of information for the risk profile on lindane required in Annex E. Further information was provided by the US Customs office related to the import and export of lindane between both countries.

4.3.1-2 Identification of the information required in Annex E

During the first phase, members of the ad hoc working group may be invited to take on responsibility for providing the data available within their sector, regarding the information required under Annex E for the risk profile on the chemical subject to review. In order to help identifying this information, which the POPRC could consider and might subsequently use in its development of the risk profile, the following chart is presented. It identifies the information types required for the risk profile under Annex E and the possible sectors that may have it, along with problems that have been found by certain stakeholders while trying to identify such information. Proposed recommendations to overcome these problems are also included in the chart:

Table 2: Information required for the risk profile and its possible sources, identified problems and possible approaches to address the problems

Required information	Sectors as sources of information	Identified problems	Possible approaches to address problems
Uses, production, imports	<ul style="list-style-type: none"> - Government (Environment, Health, Economy, Finance and Agriculture) - Industry - Customs - Other sources of information are the UNIDO and the OECD databases. Furthermore, information on the volumes of imports and/or exports of the chemical may be provided from the main countries that have an active trade relations 	<ul style="list-style-type: none"> - It is common to lack information on the production and volumes of use of the chemical. - Finance and economy agencies usually group substances under commercial criteria. Therefore, it is difficult to identify the chemical's specific export or import volumes. 	<ul style="list-style-type: none"> - To have a single national list of hazardous chemicals which have priority for the country, including those, which are subject to regional or global control. - To request an official report (taking into account required confidentiality criteria) on the production of hazardous chemicals to relevant industrial sectors. - To implement a process for the registration of hazardous substances that have priority, in order to assess their environmental and human health risks and to authorize their use in the country on the basis of these findings. - To keep an accurate record of listed substances imported amounts. For this purpose, it is recommended to define a specific customs code (international numeric code that corresponds to a specific description of goods, importation requirements and customs duties) for hazardous substances that have a priority for the country and for those under some kind of national, regional or global control. - To require a permit for hazardous substances imports and exports, for example, to implement the provisions established in the Rotterdam Convention).
Releases	<ul style="list-style-type: none"> - Government (Environment, Health and Agriculture) - Industry - Academia and research centers 	<ul style="list-style-type: none"> - Available national information on this matter might be very limited. 	<ul style="list-style-type: none"> - To keep a record of obsolete substances in stock. - To implement an environmental monitoring programme for the country. - Report on releases made by the industrial sector of chemicals that have a priority for the country.
Analysis and evaluation of danger for receptors	<ul style="list-style-type: none"> - Academia and research centers 		<ul style="list-style-type: none"> - To strengthen national research capacity, including its analytical capacity.
Environmental destination	<ul style="list-style-type: none"> - Government (Health and Environment) 		
Monitoring data	<ul style="list-style-type: none"> - Industry - Civil society 		
Exposure data			
National and international risk evaluations	<ul style="list-style-type: none"> - Academia and research centers - Government (Health and Environment) - Civil society 		
Regulations on substances by other international conventions	<ul style="list-style-type: none"> - Government (Environment, Health, Economy, Finance and Agriculture) - Academia and research centers 	<ul style="list-style-type: none"> - Lack of computers and access to the Internet for checking electronic sources of information. 	<ul style="list-style-type: none"> - To strengthen institutional capacity and infrastructure to have access to electronic sources of information.

Acronyms: UNIDO: United Nations Industrial Development Organization; OECD: Organization for Economic Cooperation and Development

A set of forms is included in Appendix 4 of the handbook. The form 1 aims at helping the Executive Unit to keep a record on which governmental office, organization, industry or university, among other stakeholders, is in possession of or responsible for any data required in Annex E. The forms 2-11 are intended to help holders of the information provide the specific data requested from them.

4.3.1-3 Information compilation and analysis

The information collected from the ad hoc working group will be mainly of domestic nature. It is possible that some of the information required in Annex E may not be readily available; hence the Executive Unit may wish to consider looking into additional sources of information to help the POPRC fulfill the requirements. Technical assistance may be requested from countries within the region, particularly those with more developed and comprehensive information systems for data gathering and analysis. Developed countries are likely to have better and more reliable databases and assessments in their information systems as these are in general States which are ahead in the restriction or prohibition of hazardous substances. This information could include data on different topics relevant to hazardous chemicals, such as chemical identification, environmental fate, toxicology, ecotoxicology, among other. Table 3 and 4 includes a non-exhaustive list of public and private databases containing relevant information for Annex E. Additionally, further information and data may be obtained through Internet research.

In order to develop a risk profile for Lindane, in support of the POPRC work, the Government of Mexico made use, at a preliminary phase, of available domestic information. The national diagnostic on lindane carried out by the National Institute of Ecology (INE) constituted the main source of information in this phase. Other relevant sources included an assessment performed by the United States Environmental Protection Agency (USEPA) on Lindane, which provided with additional technical data and scientific references. Direct contact with members of the academic sector and other scientists provided clarification on specific issues related to the chemistry and environmental fate of this chemical. Additionally a literature survey was conducted to obtain public data bases with relevant information to complete the risk profile.

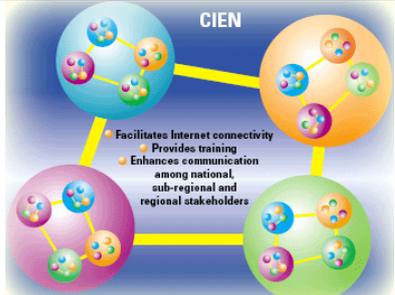
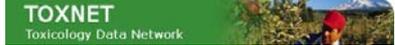
The analysis of the information collected from the stakeholder committee members was a time-consuming task as some of this information was contradictory, outdated or incomplete. For instance, the domestic data on imports of lindane from the US, provided by the Mexican customs office, were different to that reported by the US customs office on lindane exported to Mexico. To solve these inconsistencies, direct contact was established between the Mexican Government and the main domestic users and distributors of lindane. Discussions were then followed by a comparison of the import data recorded by other Government agencies, which produced a historical and more reliable record on the import and export of lindane in the country. Additional outcomes of meetings between stakeholders produced a list of recommendations in order to improve the quality of existing databases as several limitations were identified (i.e. different units for reporting data). Furthermore, advantages and disadvantages on the application of control measures were discussed.

The Executive Unit would be responsible for the compilation and integration of the information submitted by the identified sources. This task could be carried out during meetings or through electronic communications.

The Executive Unit should make sure all the information provided by the sectors is duly referenced and is reliable enough to support its validity. If necessary, the Unit, supported by the members of the Committee, might analyze and adapt the information which may require some type of treatment in order to be used and submitted. Countries who participate in the UNEP Chemical Information Exchange Network CIEN should avail themselves of their own CIEN

networks if and when they are developing information for POPRC.

Table 3: Public databases and other sources of information specified in Annex E

Name	Description	Location
UNEP Chemical Information Exchange Network (CIEN)	A network of people involved in the management of chemicals and a mechanism that helps networking and collaboration among various stakeholders responsible for the environmentally sound management of chemicals,	
Environmental Health Criteria (EHC) monographs and Concise International Chemicals Assessment Documents	Monographs and concise documents on risk evaluation of relevant chemicals elaborated by scientists and people in charge of setting regulations and standards on chemical safety in the framework of the International Programme on Chemical Safety.	http://www.inchem.org/pages/ehc.html  Environmental Health Criteria
OECD Chemicals Portal	The eChemPortal allows for simultaneous search of multiple databases and provides clearly described sources and quality of data. eChemPortal gives access to data submitted to government chemical review programmes at national, regional, and international levels.	 http://webnet3.oecd.org/echemportal/Home.aspx
EU IUCLID Data Base	A software programme for the administration of data on chemical substances. This database programme was originally developed to fulfil requirements in the EU for the evaluation and control of the risks of existing chemical substances.	 http://ecwbui5.jrc.it/
TOXNET®	Collection of databases on hazardous chemicals, toxic releases, and environmental health	 http://toxnet.nlm.nih.gov/cgi-bin/sis/htmlgen?TOXLIN
Agency for Toxic Substances and Disease Registry (ATSDR)	A toxic substances portal that contains information on their characteristics, exposure risks, associated health effects, and health studies and assessments.	http://www.atsdr.cdc.gov/substances/index.html 
Ecotox (before "AQUIRE")	Single chemical toxicity information for aquatic and terrestrial life.	http://www.epa.gov/ecotox/ 
National Institute of Technology and Evaluation (NITE) of Japan	Three databases: 1) Total Search System for Chemical Substances: comprehensive information on a target chemical substance (information on hazardous property/hazard assessments or regulations, etc.) 2) PRTR Chemicals Database: comprehensive information on substances regulated by Japan	http://www.safe.nite.go.jp/english/db.html  Chemical Management Field Collecting and transmitting information required for management of chemical substance

Name	Description	Location
	3)Data on Biodegradation and Bioconcentration of the existing chemical substances.	
Syracuse Research Corporation*	Presents 5 catalogues with information on environmental destination, microbial degradation, toxicity, physicochemical properties, biodegradation, among other.	http://www.syrres.com/esc/efdb.htm 
United Nations Economic Commission for Europe (UNECE)	Risk assessments and technical reports on relevant chemicals for Europe.	http://www.unece.org/ 
Arctic Monitoring and Assessment Programme: (AMAP)	Information on monitoring and assessments of different chemicals affecting the Arctic.	http://www.amap.no/ 
European Centre for Ecotoxicology and Toxicology of Chemicals (ECETOC)	Information on toxicological and ecotoxicological studies and assessments of hazardous substances.	http://www.ecetoc.org/ 
Sound Management of Chemicals (SMOC) of the Commission for Environmental Cooperation of North America	Information and assessments of chemicals of concern for North America.	http://www.cec.org 
International Environment House Library	Compilation of information sources on POPs.	http://www.chem.unep.ch/pops/newlayout/bibliography.html 

Table 4: Private databases and other sources of information specified in Annex E

Name	Description	Location
Reports of the GDCh Advisory Committee on Existing Chemicals (BUA)	Detailed studies of 300 substances on their characteristics, exposure risk and associated effects on aquatic and terrestrial life.	http://www.hirzel.de/bua-report/download.html 
The Registry of Toxic Effects of Chemical Substances (RTECS®) database	Toxicological information, carcinogenic classification and references to studies and international regulations on chemicals.	http://ccinfoweb.ccohs.ca/rtecs/search.html  <small>You must have an annual subscription to view the records from this search. Not yet a subscriber?? Please contact Services.</small> 
National Pesticide Information Retrieval System (NPIRS)	Information on pesticide registration.	http://ppis.ceris.purdue.edu/npublic.htm  <small>Home About Services Meetings PPIRS State AL</small>
Water-Related Environmental Fate of 129 Priority Pollutants	Information on 129 pollutants considered as priority for US.	Water-Related Environmental Fate of 129 Priority Pollutants. US Environmental Protection Agency.

Example of chemical database

The figure below shows the database of the Syracuse Research Corporation (<http://www.syrres.com/esc/efdb.htm>) which provides a search engine of the file containing 18 types of environmental fate data including environmental destination, microbial degradation, toxicity, physicochemical properties and biodegradation.

The screenshot shows a web browser window titled "Environmental Science - DATALOG - Windows Internet Explorer" with the URL <http://www.syrres.com/esc/datalog.htm>. The page header includes the Syracuse Research Corporation logo and navigation links: Search, Contact Us, Site Map, About SRC, Locations, Business Areas, Career Center, Training, and News. A left sidebar lists various services and databases, including EFDB, TSCATS, KOW, and others. The main content area features a "Business Areas" section with images and a "DATALOG Chemical Search" section. This search section includes input fields for "Enter a CAS#", "Formula", and "Chemical Name", along with "Chemical Search" and "Reset Values" buttons. A note box on the right explains that users can search by CAS number, formula, or chemical name. The page footer contains the text "Substructure search using ChemS³" and "Copyright © 1999, Syracuse Research Corporation".

4.3.1-4 Filling out the format for submitting the information

Once the information has been analyzed, it should be possible to include it in the Annex E form provided by the POPRC along with the relevant references. The information should be very clear and concise.

4.3.2 Preparation of the risk profile

Article 8, paragraph 6

Where the Committee has decided that the screening criteria have been fulfilled, or the Conference of the Parties has decided that the proposal should proceed, the Committee shall further review the proposal, taking into account any relevant additional information received, and shall prepare a draft risk profile in accordance with Annex E. It shall, through the Secretariat, make that draft available to all Parties and observers, collect technical comments from them and, taking those comments into account, complete the risk profile.

Decision SC-1/7, paragraph 29.

The Committee may establish ad hoc working groups, such as chemical-specific groups, to work during meetings and intersessionally. Such groups shall be chaired by at least one member of the Committee and may consist of members of the Committee as well as invited experts and observers. The establishment of formal subcommittees should be avoided.

POPRC ad hoc intersessional working groups

4.3.2-1 Establishing a working group for each substance

The first step for the Committee, once it has decided that a substance fulfils the screening criteria, is to set up the process for developing the risk profile. This is a major undertaking in the work of the Committee.

To prepare for the next meeting of the POPRC where the draft risk profile will be presented, an ad hoc working group is set up for each substance. The working group is chaired by a member of the Committee and in addition to a drafter, normally also a member of the Committee, could contain any number of members and observers. To speed up the task of the working group the participants, including chairs and drafters, would be identified at the POPRC meeting and a matrix with all working groups, their members and their e-mail addresses prepared by the secretariat.

For practical reasons the drafter of the risk profile has often been the member from the Party that nominated the substance. For reasons of conflict of interest the Committee has agreed that the chair should be a member from another Party than the nominating Party. Other members of the Committee, Parties not members of the Committee and observers may as they wish also join the working groups. In order to promote a balanced input of information from all regions participation of members of the Committee, Parties and other observers from different regions and from developed and developing countries in each ad hoc working group would be preferable.

The Committee also agrees on a work plan and time schedule for preparing the draft risk profile. The work plan involves several steps, including preparation and distribution of drafts to working group members and to Parties and observers. Since the POPRC presently meets once a year the work plan is a compromise between what would be desirable and what is practically possible given the tight time schedule. The dates for the meetings of the POPRC cannot be changed and therefore the deadlines in the work plan must be strictly adhered to. It is important that all Parties and observers comply with the work plan and it would be advisable for those interested in providing information to incorporate the POPRC work plan in their own planning.

4.3.2-2 Drafting the risk profile

When some or all information has been received, the drafter starts pulling together the first draft risk profile for the substance according to the agreed outline (see POPRC website). In many cases the nomination has been supplemented with a background document that contains a major part of the information required under Annex E. For the first draft risk profile, it is important to identify information that may have been overlooked or more recent information or additional information from the grey literature, e.g. government information, agency reports etc.

In handling additional information for the draft risk profile the working groups have applied the same approaches as for the screening evaluation, i.e. Peer reviewed scientific data take precedence, while secondary data (e.g. peer reviewed monograph of chemical substance or reviews and tertiary and incidental or anecdotal data should only be incorporated with great care and with proper caveats.

Since the Committee has agreed to limit the final draft risk profile to 20 pages, excluding references, data or studies that support but do not add to the existing draft need not be described, only added to the reference list.

Also, adding long arguing texts should be avoided. Data that conflict with or contradict data in the first draft should be addressed and the seeming conflict explained, if possible.

The process for preparing the first draft risk profile is an internal matter for the intersessional working group according to an agreed work plan. The sequence has been as follows:

The procedure for development of the draft risk profile

- (1) The chair communicates with the drafter to find out when the draft is sufficiently prepared for distribution to working group members.
- (2) The first draft is distributed to the other members of the working group for comments. Comments should be short and as far as possible provide precise text additions, deletions, or substitutions, indicating the page and paragraph where the change should be made. As always, sweeping comments or generalizations about the draft as such should be avoided as they do not add to the work but detract from it. It is also crucial that the working group members stick to the deadlines, even if they seem tight, to avoid the work plan becoming jammed at later stages.
- (3) The drafter incorporates the comments and makes a second draft in consultation with the chair and, as needed, with the providers of specific comments. Since many comments may address the same issue, or the issue at hand may already have been treated in the first draft the drafter is allowed to use his discretion in amending the draft to maintain the readability and flow of the document. The members of the working group may therefore find that not all their comments are reflected in verbatim.
- (4) The second draft is finalized and sent by the chair of the working group to the Secretariat
- (5) The second draft risk profile for a substance is distributed by the Secretariat to all Parties and observers for comments and is also placed on the Stockholm Convention website under the POPRC heading. In the interest of openness and transparency all comments provided are also placed on the website.
- (6) When the deadline for the round of comments has expired the chair and the drafter review the comments and complete the third draft risk profile for the substance.
- (7) In addition, they start compiling a document that lists all comments individually and how they have been handled. This document is available as an information document at the upcoming POPRC meeting.
- (8) The third draft is distributed to members of the working group for their final comments, whereupon the chair and the drafter produces the final draft risk profile together with the final list of how comments have been handled.
- (9) The final draft is submitted by the chair on behalf of the working group to the Secretariat.
- (10) The Secretariat sends it to the UN Conference Services for editing and translation into the six official UN languages.
- (11) When translated the final draft risk profile is distributed to members of the POPRC and to all Parties and observers and placed on the Stockholm Convention website.

The final draft risk profile should contain a summary and a conclusion that states whether, in the view of the working group, the chemical is likely as a result of its long-range environmental transport to lead to significant adverse human health and/or environmental effects such that global action is warranted to facilitate discussions in the Committee on whether Article 8, paragraph 7 has been fulfilled. To the extent that such information is available and appropriate the risk profile could contain a comparison of low or no effect level doses in experimental animals with levels found in different media or in individual organisms in the environment as a result on long-range environmental transport.

Output of the risk profile development:

- A draft risk profile available on the Committee website and in hardcopy

What Parties could do:

- Assist as appropriate in the risk profile development, providing information, comments etc.
- Review the draft risk profile in preparation for the upcoming session of the Committee
- Participate, as appropriate in the intersessional ad hoc working groups and in the Committee meeting

What observers could do:

- Check whether they are or have been manufacturing, formulating or using the substance (observers from industrial sectors)
- Check whether they have information as specified in Annex E and submit it, as appropriate, to assist the Committee in developing the risk profile
- Assist as appropriate in the risk profile development, providing information, comments etc.
- Review the draft risk profile in preparation for the upcoming session of the Committee
- Participate, as appropriate in the intersessional ad hoc working groups and in the Committee meeting

4.3.3 Committee decision on the risk profile

Article 8, paragraph 7

If, on the basis of the risk profile conducted in accordance with Annex E, the Committee decides:

- (a) That the chemical is likely as a result of its long-range environmental transport to lead to significant adverse human health and/or environmental effects such that global action is warranted, the proposal shall proceed. Lack of full scientific certainty shall not prevent the proposal from proceeding. The Committee shall, through the Secretariat, invite information from all Parties and observers relating to the considerations specified in Annex F. It shall then prepare a risk management evaluation that includes an analysis of possible control measures for the chemical in accordance with that Annex; or
- (b) That the proposal should not proceed, it shall, through the Secretariat, make the risk profile available to all Parties and observers and set the proposal aside.

Evaluation of the risk profile by the Committee:

- (1) Members of the Committee have the opportunity to request clarifications or comments and to present their views on the draft risk profile.
- (2) A contact group open to all observers is set up to review and revise the profile as needed based on comments and observations.

- (3) When the contact group has finished its work a drafting group consisting only of members of the Committee will prepare a draft decision for the Committee.
- (4) The revised risk profile and the draft decision for the substance is presented to the plenary and further discussed in plenary by the members of the Committee.
- (5) The Committee decides on whether a certain substance is likely as a result of its long-range environmental transport to lead to significant adverse human health and/or environmental effects such that global action is warranted and the proposal should proceed, or whether this is not the case.
- (6) The decision forms part of the report of the meeting and is communicated to all Parties and observers. If the Committee decides that the proposal should proceed, its decision together with the revised risk profile is communicated to all Parties and observers with a request to them to submit information as specified in Annex F.

From experience:

To date the risk profiles of ten substances have been examined with reference to the requirements of Annex E. For nine of the substances the Committee has decided that they are likely, as a result of their long-range environmental transport, to lead to significant adverse human health and/or environmental effects such that global action is warranted and the proposals should therefore proceed to the risk management evaluation step. For one of the substances the Committee referred in its decision to the precautionary language in Article 8, paragraph 7 a, that lack of full scientific certainty shall not prevent the proposal from proceeding. For the tenth substance the Committee decided that the information currently available to the Committee was considered insufficient to support a decision on the risk profile and decided to defer its decision on the draft risk profile for that substance to the next meeting of the Committee.

As with the screening phase, the risk profile evaluation has demonstrated that Parties have exhibited considerable judgement in nominating candidate substances for the Convention and shown continued commitment by providing sufficient information for a consensus decision to be made on the risk profile. No decision has yet been made that a substance should not proceed and only one out of ten substances has been deferred to a later meeting for decision making. Again, from an efficiency point of view it should be noted that the Committee has not been obliged to spend any time on spurious or inadequate nominations. The Committee should continue to use the most recent and reliable peer reviewed data.

The assessment of the risk profile for a substance against the wording in the chapeau of Annex E, “that the chemical is likely as a result of its long-range environmental transport to lead to significant adverse human health and/or environmental effects such that global action is warranted.” has raised some comments in the development of the risk profile and in the meetings of the Committee. Some NGOs have sought clarification from the Committee on whether it can be considered likely that substances, which fulfil all the criteria in Annex D but which have long since gone out of production may lead to human health and/or environmental effects, such that global action is warranted. For one such substance, HBB, according to one member listing of HBB in the Convention should protect against the substance being reintroduced on the market and the Committee should therefore proceed to the risk management phase. This was also the decision of the Committee (POPRC Decision 2/3).

The ‘Synthesis of Information’ and ‘Concluding Statement’ of a Risk Profile are critical parts of the summary rationale for why global action on a nominated chemical is warranted. In the nine risk profiles agreed so far by the Committee, most had comprehensive summary rationales which drew on the critical data elements contained within the body of the report and linked them into an overall weight of evidence. However, not all summary rationales made full use of the data in the body of the report. The logic applied and described in the ‘Synthesis of Information’ and ‘Concluding Statement’ of a Risk Profile is likely to be the most carefully examined text in each report. Parties and observers to the Convention will need to be convinced that the case is strong. For the future the Committee may consider the data element listed in Table 1 as a check list for developing the ‘Synthesis of Information’ and ‘Concluding Statement’ of a Risk Profile to ensure that they have considered all the available data in the profile and linked it convincingly.

Table 1. Key components cited in the summary rationale for each Risk Profile

Critical Component Mentioned	Lindane ¹	HBB ¹	C-PBDE ¹	PFOS ¹	α -HCH ²	β -HCH ²	Chlordecone ²	C-OBDE ²	PeCB ²	SCCP ²
Meets Annex D Criteria		x	x				x		x	
Production and use issue	x	x	x	x			x		x	x
Stockpile or waste problem	x	x	x	x	x	x		x	x	
Degradation or transformation product(s) an issue				x				x		
World-wide environmental distribution	x		x		x	x			x	x
Measured levels in air, water, soil or sediment remote from source which indicate long range transport			x	x	x				x	x
Modelling data which indicate long range transport	x	x		x	x	x	x		x	x
Persistent in the environment	x	x	x	x	x	x	x	x	x	x
Bio-accumulative (measured or predicted)	x	x	x	x	x	x	x	x	x	x
Measured levels in wildlife or domestic animals near use, production or waste sites	x		x		x	x	x		x	x
Measured levels in wildlife or domestic animals far from use, production or waste sites	x		x	x	x	x		x	x	x
Measured levels in human tissues near use, production or waste sites	x		x		x	x				x
Measured levels in human tissues far from use, production or waste sites	x		x		x	x				x
Environmental, wildlife or human levels increasing or not declining			x		x	x			x	
Health effects in laboratory species	x	x	x		x	x	x	x	x	x
Health effects in wildlife at ambient concentrations	x			x		x				
Health effects in humans at	x									

Critical Component Mentioned	Lindane ¹	HBB ¹	C-PBDE ¹	PFOS ¹	α -HCH ²	β -HCH ²	Chlordecone ²	C-OBDE ²	PeCB ²	SCCP ²
ambient or occupational concentrations										
Confirmed, probable, possible human carcinogen	x	x			x	x	x			
Endocrine disruption is an issue		x								
Health risk ratio (exposure:safety level) close to or >1 in wildlife	x		x	x				x		x
Health Risk ratio (exposure:safety level) close to or >1 in humans	x				x	x		x		
Possibility of chemical interactions (additivity, synergism)	x					x				
Comparison with other POPs (toxicity, levels, structure, etc.)	x						x	x		x
Regulated under other international instrument		x					x			x
Application of precaution								x		
Total key components cited	18	10	14	10	14	16	10	10	12	14
Mean (SD)	10.5 (5.7)				12.7 (2.4)					

1 Evaluated at POPRC 2

2 Evaluated at POPRC 3

Output of the risk profile decision stage:

- Decision that the substance is likely, as a result of its long-range environmental transport to lead to human health and/or environmental effects such that global action is warranted
- Revised risk profile
- Request to Parties and observers to submit information as specified in Annex F

What Parties could do:

- Start to identify, by searching available domestic and other data sources, consulting with stakeholders etc. relevant information as specified in Annex F and submit it

What observers could do:

- Check whether they are or have been manufacturing or using the substance
- Check whether they have information as specified in Annex F and submit it, as appropriate, to assist the Committee in developing the risk profile

4.4. Developing the risk management evaluation

4.4.1 Identification and compilation of the information specified in Annex F

Article 8, paragraph 7 (a), 4th line

The Committee shall, through the Secretariat, invite information from all Parties and observers relating to the considerations specified in **Annex F**.

When the Committee has decided to adopt the risk profile and that a certain substance is likely as a result of its long-range environmental transport to lead to significant adverse human health and/or environmental effects such that global action is warranted, the proposal shall proceed. The decision and the accompanying documents are included in the POPRC meeting report. The Secretariat will make the decision and the risk profile available and will invite information according to Annex F (*see Appendix 1 of the handbook*) from all Parties and observers. This request is sent to all Parties and observers to allow for the widest possible search for relevant information. The Secretariat also distributes a **format*** for submission of information agreed to by the Committee (**see also: Appendix 3 of the handbook*).

The Annex F format is intended to provide a uniform format for the submissions. It addresses the different items listed under Annex F for which information is sought and gives some further information on how the format should be filled in. Experience with the format has shown that there are areas for improvement in order to make the form more clear and unambiguous. The POPRC will look into revising the format with a view towards making it easier to use by countries.

The Executive Unit mentioned above in section 4.3.1 for the preparation of risk profile would also be suggested to be in charge of submitting the information established in Annex F. To this end, the following steps are suggested.

Possible national level approach

4.4.1-1 Determination of expected economic, environmental, agricultural, social and/or health implications

It is important for all Parties to have a clear understanding of the opinion of the different sectors and the capacity these have to face the possible control measures that could be established for the chemical under review. This would enable them to identify relevant aspects that may have an impact in their countries, and the opinion should therefore be communicated to the POPRC, so that they can be considered when establishing control measures.

It is recommended that the Executive Unit draws up a survey in order to identify the feasibility and possible socio-economic implications in the country of the implementation of control measures, and the availability and implications of the alternatives for replacing the chemical. This survey would use a questionnaire as an instrument to gather this information, which would be specific to the chemical under review. The questionnaire could be made up of five main sections:

- i. General information
- ii. Possible control measures and their impacts (including waste management and disposal)
- iii. Alternatives to replace products and/or processes
- iv. Access to information and public education
- v. Status of control and monitoring capacity

The following chart shows the objective of each proposed section of the survey, and Appendix 5 of this handbook presents a general format of a questionnaire to compile the information for Annex F. This format would serve as a guide for each Party to draw up the specific questionnaire for the chemical under consideration.

Table 6: Objective of each proposed section of the survey

Sections	Objectives	Notes or Remarks
i. General information	Identify the group/office/sector that is filling out the questionnaire. Knowledge on the products that contain the chemical under review.	
ii. Possible control measures and their impacts (including waste management and disposal)	Knowledge on technical and economic feasibility of possible control measures that could be established for the chemical under review. Compile relevant information to document the foreseen impacts as a result of the application of control measures. Determine control measures suitable for the country and possible exemptions. Determine if it is technically and financially feasible to manage and dispose of wastes that would be generated by the application of control measures, mainly regarding obsolete pesticides in stock, and clean-up of contaminated sites.	The Executive Unit would have to propose a list of possible control measures that could be applied to guide the respondents' answers. Subsequently, in order to fill out the Annex F format for submitting information, the Unit could specify the risk reduction goals, that could be reached by applying proposed control measures agreed upon by the different sectors. According to the Annex F format "risk reduction goals" could refer to targets or goals to reduce or eliminate releases from intentional production and use, unintentional production, stockpiles, wastes, and to reduce or avoid risks associated with long-range environment transport.
iii. Alternatives to replace products and/or processes	Identify alternatives to replace the product or process. Find out if these are technically and financially feasible. Improve knowledge of identified alternatives Document the opinion and possible experiences in their use, regarding efficacy, availability, accessibility and cost. Awareness raising of possible risks that their use may pose.	The effects to be considered would include those caused to: Health, including public, environmental and occupational health; Agriculture, including aquaculture and forestry; Biota (biodiversity); Economic aspects (including any information on the impact, costs, and benefits to the local, national or regional economy, and particularly to the manufacturing sector and industrial and other users, for example, capital costs and benefits associated with the transition to the alternatives, and the economic impact on agriculture and forestry); Movement towards sustainable development (particularly, how control measures fit within national sustainable development plans and strategies) and, Social costs
iv. Access to information and public education	To identify available sources of information along with programmes, courses, workshops or any other material developed with respect to both control measures and alternatives.	
v. Status of control and monitoring capacity	To describe legal and institutional frameworks for the chemical subject to review and their enforcement. To describe technical and institutional infrastructures for the environmental monitoring and biomonitoring of the chemical under consideration.	It is not necessary to include information on alternatives.

With the purpose of ensuring the inter-comparability of the information obtained from carrying out the survey in the different sectors represented in the ad hoc working group, it is suggested that only one questionnaire is designed and applied to the different sectors. Such questionnaire must include the variants that may be necessary in order to fulfill all the needs of information required to obtain from each sector. Alternatives should be given when a question is not aimed at a specific sector.

Questions that could verify or supplement the information obtained for Annex E could be included in the questionnaire. For example, a chemical may still be listed in an official database even though it is no longer produced or marketed in the country, and the survey could corroborate this information.

All members of the ad hoc working group would be in charge of distributing and applying the questionnaire in the areas, groups or companies of the sector they represent. They would also be in charge of sending the questionnaires to the Executive Unit once they have been answered.

The Executive Unit would be in charge of analyzing the questionnaires and submitting the survey results to the ad hoc working group. Once the results have been submitted, the Executive Unit would coordinate the members of this group in order to reach agreements or a consensus on the information that will be sent to the POPRC. For instance, it would be necessary to reach a consensus on control measures that could be proposed for the chemical under review, or reach an agreement on the need to establish exemptions regarding a specific use of the chemical. This task may be carried out through discussion meetings, in which each member can explain what his/her position is and, if necessary, provide further information in order to support his/her arguments.

4.4.1-2 Consultation on other control measures applied to the chemical

The Executive Unit would carry out a literature review to find out whether the chemical under consideration is subject to a different type of control in any other region, such as bans, elimination of use, restrictions, clean-up of contaminated sites, waste disposal, financial incentives or other voluntary initiatives in order to take advantage of their experience and to support the approach and proposal of possible alternatives or control measures for the chemical. Furthermore, it would investigate if these measures have been cost-effective considering whether desired benefits have been achieved and if a reduction of releases and risks generated by the chemical subject to control has been detected.

4.4.1-3 Filling out the format for submitting information

Once the information of the survey has been analyzed and agreements have been reached on the information to include, the Executive Unit would fill out the Annex F format requested by the POPRC.

4.4.1-4 Variations to the information collection methodology

In response to diverse initiatives on environmentally sound management of chemicals, some countries have already made advances in the prevention and control of persistent organic pollutants through national or regional actions. Therefore, the production, use and/or commercialization of the chemical under review may already be banned by means of regulatory or non-regulatory actions. The possibility that the chemical may have never been authorized for use, commercialization or production in the country should also be considered. Taking these possible variations into account, alternative procedures to the general methodology are presented with the purpose of drawing attention to these cases.

4.4.1-5 Banned chemicals

In case the chemical under consideration is banned in the country due to the application of any national or regional measure, the methodology for information collection could be based on the review of the information, studies, reports and other documents that supported the ban on the chemical. It would be extremely valuable to know about the experience and information that this country could provide to others on the implications of the ban and the use of alternatives with respect to their accessibility, effectiveness, efficiency, risks, impacts and costs.

To this end, the Executive Unit would be in charge of compiling the information specified in Annexes E and F from studies, reports and other documents generated during the process that was followed to ban the chemical. It would also be in charge of designing and carrying out an extensive survey addressed to users, traders and manufacturers of alternatives of the chemical in order to make the best use of their experience and to supplement the information required in Annex F. The general questions that appear in the corresponding section of the general methodology would serve as a guide. Finally, the Executive Unit would fill out Annexes E and F forms with the information gathered.

4.4.1-6 Voluntary eliminated production, commercialization and use of the chemical

Even though the chemical may be registered and/or otherwise authorized to be used, produced and/or commercialized in the country, in practice, these activities may no longer be carried out as a result of national or regional agreements or due to lack of demand or usefulness. In this case, the methodology would be mainly aimed at identifying and compiling the information on the voluntary elimination of the chemical and on the alternatives that are being used as replacements. For this purpose, the Executive Unit would be in charge of gathering the information that caused the voluntary elimination and that is related to the information required in Annex E, through interviews with the sectors involved. In order to compile the information required in Annex F, the Unit would design and carry out a survey addressed to producers, traders and users that contains the sections suggested in the general methodology survey. Finally, the Annexes E and F forms would be filled out by the Unit.

4.4.1-7 Chemicals not used, commercialized or produced in the country

The chemical may have never been registered or authorized to be produced, used or commercialized in the country, and there may have never been any applications for registrations or notifications of manufacture. In these situations, there may be limited data, but the potential relevant information that could be provided to the POPRC might be monitoring data requested in Annex E to verify the absence or presence of the chemical in humans and the environment, and also to ensure there has not been any illegal use or trade of the chemical. If applicable, it would be very important if the country could share its experiences on the use of alternatives to the chemical under review and fill the respective section on alternatives in the Annex F format.

4.4.2 Preparation of the risk management evaluation

Article 8, paragraph 7 (a), 5th line

It (the Committee) shall then prepare a risk management evaluation that includes an analysis of possible control measures for the chemical in accordance with that Annex;

Decision SC-1/7, paragraph 29.

The Committee may establish ad hoc working groups, such as chemical-specific groups, to work during meetings and intersessionally. Such groups shall be chaired by at least one member of the Committee and may consist of members of the Committee as well as invited experts and observers. The establishment of formal subcommittees should be avoided.

POPRC ad hoc intersessional working group

4.4.2-1 Establishing a working group for each substance

At the POPRC meeting the Committee has set up working groups for each substance for which a risk management evaluation should be developed. The working groups are chaired by members of the Committee, in addition a drafter, usually, but not necessary, a member of the Committee is identified for each group. The working groups are open ended and members of the Committee, Parties and observers are invited to sign up for the different working groups at the POPRC meeting. A matrix of working groups with chairs, drafters, members and other participants and their e-mail addresses is prepared by the Secretariat at the POPRC meeting and distributed to all participants. In addition, a work plan is set up for the development of the risk management profile for the next POPRC meeting. The Committee has also agreed on an outline for the risk management evaluation report.

As a first step, all Parties and observers are invited to provide information for the risk management evaluation. The information should preferably be submitted using the format agreed by the Committee and distributed by the Secretariat together with the information request. Submissions should follow the agreed format to facilitate incorporation into the first draft of the risk management evaluation. Some suggestions on how Parties might proceed at the national level have already been mentioned.

4.4.2-3 Drafting of the risk management evaluation

The drafter will compile all the submissions and prepare a first draft risk management evaluation in consultation with the chair of the working group. The chair will send the first draft to all members of the ad hoc working group for their comments whereupon the drafter will prepare the second draft in consultation with the chair and, as needed, with the providers of specific comments. Again, there is a need to limit the number of pages for the evaluation report to 20 pages due to translation costs. This necessitates that submissions with similar content are amalgamated by the drafter as much as possible. Specific details concerning use patterns etc. could be put in an Annex that would be an information document and not translated.

The second draft is submitted by the chair to the Secretariat on behalf of the ad hoc working group. The second draft risk management evaluation is then distributed by the Secretariat to all Parties and observers for comments and is also placed on the Stockholm Convention website under the POPRC heading. In the interest of openness and transparency all comments provided are also placed on the website.

When the deadline for the round of comments on the second draft has expired the chair and the drafter review the comments and complete the third draft risk management evaluation for the substance. In addition, they start compiling a document that lists all comments individually and how they have been handled. This document is available as an information document at the upcoming POPRC meeting. The third draft is distributed to members of the working group for their final comments, whereupon the chair and the drafter produces the final draft risk management evaluation together with the final list of how comments have been handled. This final draft is submitted by the chair on behalf of the working group to the Secretariat. The Secretariat sends it to the UN Conference Services for editing and translation into the six official UN languages. When that process is finished the final draft risk management evaluation is distributed to members of the POPRC and to all Parties and observers. The final draft risk management evaluation is also placed on the Stockholm Convention website.

The information submitted for the risk management evaluation is different from that for the risk profile. Very little risk management information appears as scientific data in the open literature. Most of the information on uses patterns, alternatives, production volumes, regulations and other measures taken to reduce releases comes either from government sources or from the manufacturing and user sectors of industry. Some of the information appears in official government journals while other information may be in the grey literature or submitted in letters from industrial organizations. This latter information may be quite useful to the Committee but it needs to take into account that it is not peer reviewed in the true sense of the word. If there is conflicting information from other sources both pieces of information should be brought to the Committee for discussion and, hopefully, clarification.

The different steps in the production of the draft risk management evaluation are as follows:

The procedure for development of the draft risk management evaluation

- (12) The chair communicates with the drafter to find out when the draft is sufficiently prepared for distribution to working group members.
- (13) The first draft is distributed to the other members of the working group for comments. Comments should be short and as far as possible provide precise text additions, deletions, or substitutions, indicating the page and paragraph where the change should be made. As always, sweeping comments or generalizations about the draft as such should be avoided as they do not add to the work but detract from it. It is also crucial that the working group members stick to the deadlines, even if they seem tight, to avoid the work plan becoming jammed at later stages.
- (14) The drafter incorporates the comments and makes a second draft in consultation with the chair and, as needed, with the providers of specific comments. Since many comments may address the same issue, or the issue at hand may already have been treated in the first draft the drafter is allowed to use his discretion in amending the draft to maintain the readability and flow of the document. The members of the working group may therefore find that not all their comments are reflected in verbatim.
- (15) The second draft is finalized and sent by the chair of the working group to the Secretariat
- (16) The second draft risk management evaluation for a substance is distributed by the Secretariat to all Parties and observers for comments and is also placed on the Stockholm Convention website under the POPRC heading. In the interest of openness and transparency all comments provided are also placed on the website.
- (17) When the deadline for the round of comments has expired the chair and the drafter review the comments and complete the third draft risk management evaluation for the substance.
- (18) In addition, they start compiling a document that lists all comments individually and how they have been handled. This document is available as an information document at the upcoming POPRC meeting.
- (19) The third draft is distributed to members of the working group for their final comments, whereupon the chair and the drafter produces the final draft risk management evaluation together with the final list of how comments have been handled.
- (20) The final draft is submitted by the chair on behalf of the working group to the Secretariat.
- (21) The Secretariat sends it to the UN Conference Services for editing and translation into the six official UN languages.
- (22) When translated the final draft risk management evaluation is distributed to members of the POPRC and to all Parties and observers and placed on the Stockholm Convention website.

The final draft risk management evaluation should contain a summary that describes the possible control measures that were analyzed and the proposed recommendation for listing in Annexes A, B and/or C of the Convention.

Output of the risk management evaluation development:

- Draft risk management evaluation available on the Committee website and in hardcopy

What Parties should do:

- Assist as appropriate in the risk management evaluation development, providing information, comments etc.
- Review the draft risk management evaluation in preparation for the upcoming session of the Committee
- Participate, as appropriate in the intersessional ad hoc working groups and the Committee meeting
- Start to identify and consider the implications of listing the substance in Annex A, B and/or C of the Convention, including the need for exemptions and/or acceptable purposes

What observers could do:

- Check whether they are or have been manufacturing, formulating, importing or using the substance (observers from industrial sectors)
- Check whether they have information as specified in Annex F and submit it, as appropriate, to assist the Committee in developing the risk profile
- Assist as appropriate in the risk management evaluation development, providing information, comments etc.
- Review the draft risk management evaluation in preparation for the upcoming session of the Committee
- Participate, as appropriate in the intersessional ad hoc working groups and in the Committee meeting

4.4.3 Committee decision on the risk management evaluation and recommendations to the Conference of the Parties

Article 8, paragraph 9, 1st sentence

The Committee shall, based on the risk profile referred to in paragraph 6 and the risk management evaluation referred to in paragraph 7 (a) or paragraph 8, recommend whether the chemical should be considered by the Conference of the Parties for listing in Annexes A, B and/or C.

At the POPRC meeting where the risk management evaluation will be discussed, the practice has been that the President of the Committee invites the chair of the ad hoc working group for that substance to briefly present the risk management evaluation (RME) report and highlight issue to be further discussed. Members are invited to comment and ask questions for clarification etc. After discussion in the plenary a contact group open to both members and observers is set up to address the comments raised and to revise the RME as appropriate. When the contact group has finished its discussion it is turned into a drafting group with only members of the Committee that prepares a draft decision for the Committee. The draft decision could contain a recommendation to the Conference of the Parties to list the substance in Annexes A, B and/or C under the convention.

The draft decision and the risk management evaluation are then discussed in plenary and the Committee then decides whether to recommend the substance to be considered by the Conference of the Parties for listing in Annexes A, B and/or C in the Convention. The Committee decision forms a part of the meeting report and is also distributed to all Parties.

A substance could be recommended for listing in any of the Annexes. An intentionally produced substance that meets the Convention criteria could be recommended for Annex A, elimination; with some specific exemptions, or in Annex B, restriction; with some specific exemptions/acceptable purposes, as the case might be. Similarly, an unintentionally produced substance that meets the Convention criteria could be recommended for listing in Annex C, unintentional production. There are also cases when a substance might be recommended for listing in more than one Annex, e.g. substances that are both intentionally produced and which appear in releases and emissions from industrial processes.

The risk management evaluation differs in several aspects from the risk profile. For the risk profile scientific data in the open literature play a critical role. While it is important to have the broadest possible input of information from all Parties and observers, in principle the relevant data for the risk profile, in the absence of input from Parties and observers, may be obtained by the intersessional working group by searching the open literature. For the risk management evaluation information from Parties and observers are critical. In order to formulate adequate recommendations to the Conference of the Parties the Committee needs detailed information on all uses of a substance from various parts of the world and from developed and developing countries. It also needs information on measures taken and their costs and benefits, on alternatives and on social and other impacts of measures. Such information is normally not available in the open literature but must be obtained from those who regulate chemicals, i.e. governments, and from those who produce and use them, i.e. different sectors of industry and society at large. It is therefore crucial first of all that the request for information reaches all concerned and, second, that as many stakeholders as possible submit responses to the Committee through the Secretariat..

From experience:

Eight of the nine substances recommended for listing by the Committee are intentionally produced substances only and the Committee decision for seven of them has been to recommend listing in Annex A. For one substance, the Committee has recommended listing in Annex A or B. The final decision will be taken by the Conference of the Parties. The ninth substance, which has been proposed for listing in Annexes A and C, is intentionally produced but may also be produced unintentionally from various combustion processes and other diffuse sources.

Output of the risk management decision:

- Decision to recommend to the Conference of the Parties whether the substance should be considered for listing in Annex A, B and/or C of the Convention
- Decision communicated to all Parties and observers by the Secretariat
- Parties invited to consider the implications of listing the substance

What Parties should do:

- Consider the implications of listing the substance as recommended by the Committee by reviewing their production and uses of the substance in consultation with stakeholders
- Consider the need for exemptions or, as appropriate, acceptable purposes

What observers could do:

- Consider the implications of listing the substance as recommended by the Committee and providing further information to Parties on the production and uses of the substance

4.4.3-4 Decision by the Conference of the Parties

Article 8, paragraph 9, 2nd sentence

The Conference of the Parties, taking due account of the recommendations of the Committee, including any scientific uncertainty, shall decide, in a precautionary manner, whether to list the chemical, and specify its related control measures, in Annexes A, B and/or C.

The recommendation from the Committee to list a substance in Annexes A, B or C of the Convention is a proposal for an amendment of the Convention. It must therefore be communicated to all Parties six months in advance of the session of the COP where it will be discussed. This time period has been set to allow for Parties to prepare themselves adequately for the discussion and eventual decision. Parties should also use this period to try to identify to the greatest extent possible the social, economical and other consequences of listing the substance. The dates for the meetings of the Committee are set such that any recommendation from the Committee to list a substance can be distributed to Parties meeting the six months deadline.

The Conference of the Parties is sovereign in deciding on the listing of substances. However, it has set up the Committee and entrusted it to come with recommendations to itself with a purpose, namely that it would have an evaluation of the possible control actions that encompass the full range of options, including management and elimination from a technical body with all the necessary expertise. To assist the Conference of the Parties the recommendations of the Committee should therefore contain all the necessary details of different control measures.

No decisions to list a substance have yet been taken by the Conference of the Parties. The interpretation of the second sentence of Article 8, paragraph 9 (*see box above*) has therefore not yet been agreed by the Conference of the Parties.

What Parties should do:

- Review again their production and uses of the substance and consider the need for specific exemptions and/or acceptable purposes
- Consult, as appropriate, other Parties in their region and elsewhere e.g, those exporting the substance to the Party or those to which the Party exports the substance

4.5. Appeals against Committee decisions on the screening criteria and the risk profile for a substance

Article 8, paragraph 4(b)

If the Committee decides that:

...

- (b) It is not satisfied that the screening criteria have been fulfilled, it shall, through the Secretariat, inform all Parties and observers and make the proposal and the evaluation of the Committee available to all Parties and the proposal shall be set aside.

Article 8, paragraph 5

Any Party may resubmit a proposal to the Committee that has been set aside by the Committee pursuant to paragraph 4. The resubmission may include any concerns of the Party as well as a justification for additional consideration by the Committee. If, following this procedure, the Committee again sets the proposal aside, the Party may challenge the decision of the Committee and the Conference of the Parties shall consider the matter at its next session. The Conference of the Parties may decide, based on the screening criteria in Annex D and taking into account the evaluation of the Committee and any additional information provided by any Party or observer, that the proposal should proceed.

Article 8, paragraph 7 (b)

If, on the basis of the risk profile conducted in accordance with Annex E, the Committee decides:

...

- (b) That the proposal should not proceed, it shall, through the Secretariat, make the risk profile available to all Parties and observers and set the proposal aside.

Article 8, paragraph 8

For any proposal set aside pursuant to paragraph 7 (b), a Party may request the Conference of the Parties to consider instructing the Committee to invite additional information from the proposing Party and other Parties during a period not to exceed one year. After that period and on the basis of any information received, the Committee shall reconsider the proposal pursuant to paragraph 6 with a priority to be decided by the Conference of the Parties. If, following this procedure, the Committee again sets the proposal aside, the Party may challenge the decision of the Committee and the Conference of the Parties shall consider the matter at its next session. The Conference of the Parties may decide, based on the risk profile prepared in accordance with Annex E and taking into account the evaluation of the Committee and any additional information provided by any Party or observer, that the proposal should proceed. If the Conference of the Parties decides that the proposal shall proceed, the Committee shall then prepare the risk management evaluation.

There are two steps in the process where the Committee may decide that a substance does not meet the criteria for being listed under the Convention. The first is at the screening stage, where the properties of the substance are being assessed against the criteria listed in Annex D. If the Committee decides that the proposed substance does not meet the Annex D criteria it may decide to set the substance aside. This means that the substance will not be further considered by the Committee. Any Party may resubmit a proposal for the substance to the Committee. Additional considerations or new data may be added to support the case. If the Committee still decides that in its view the screening criteria are not fulfilled it may set the substance aside again. The resubmitting Party then has the possibility to raise the issue at the level of the Conference of the Parties. The Conference of the Parties may then decide that the proposal should proceed. This possibility to appeal against the decision of the Committee has been added to give any Party the opportunity to state its case before the Conference of the Parties. For the risk profile stage a Party may request the Conference of the Parties to instruct the Committee to invite additional information and then reconsider the information for the risk profile. If the Committee again sets the

proposal aside the Party may challenge the decision at the Conference of the Parties and the Conference of the Parties may decide that the proposal shall proceed.

The appeals procedure puts a burden on the resubmitting Party to provide information that might change the Committee decision. Since to date the POPRC has neither set aside proposals at the Annex D criteria screening stage nor the Annex E risk profile stage, no information on the POPRC's and/or the COP's implementation of the relevant provisions is available.

4.6. Conflict of interest issues

The decisions of the Committee affect the future of substances that have been or are being manufactured and used by various sectors of society. There are also social and economic impacts on individuals and/or on economic interests of the bans and restrictions the Committee might recommend. It is crucial that the decisions of the Committee are widely respected for their integrity and impartiality to such interests.

At the same time, the individual members of the Committee might have in their present or past life come across situations where they have had financial or other interests in private enterprises affected by Committee decisions, or where e.g. as scientists they have received financial support from such entities. Every member of the Committee therefore has to sign a declaration of conflict of interest according to Decision SC-1/8 by the Conference of the Parties. The conflict could be direct e.g. holding shares in a company that manufactures the substance, or indirect, e.g. receiving research grants from industry foundations related to the substance or advising non-governmental organizations set up by industry or co-authoring of research papers on a substance.

Declaring a conflict of interest for a specific substance does not mean that the member needs to resign from the Committee. Conflict of interest situations arise in many committees across society, e.g. research councils, executive boards etc. and are resolved in various ways. The conflict of interest should always be openly declared by the member before the issue comes up. A common solution in such cases could be that the member who has a conflict of interest with an item on the agenda declares it when the item is opened for discussion. He/she could then abstain from participating in the decision and also in the discussion leading up to the decision. In some cases the member might be invited to leave the room while the decision is taken.

So far no conflict-of-interest issues have been formally resolved by the Committee.

4.7. Roles and responsibilities of members, Parties and observers

At a typical POPRC meeting there are two different types of participants. First of all there are the members of the Committee. They have been mandated by the Conference of the Parties according to the ToR to perform the functions assigned to it by the Conference. They have the right to speak at meetings, to draft and participate in decisions, and to vote when needed. They should seek consensus whenever possible and work together for the efficiency and effectiveness of the Committee. Members are always nominated by Parties to the Convention.

All non-member participants at a Committee meeting are treated as observers according to the rules of procedure of the COP. This includes Parties to the Convention who are not members of the Committee, non-Parties, Intergovernmental Organisations (IGOs), NGOs and experts invited by the Committee. Pursuant to Rule 7 of the Rules of Procedure of the COP, observers may, upon invitation of the President, participate without the right to vote in the proceedings of any meeting in matters of direct concern to the body or agency they represent, unless at least one third of the Parties present object.

It has been common practice during plenary meetings of the Committee that the President invites observers to speak only after all members who wish to do so have taken the floor and to restrict the discussion leading up to a decision of the Committee only to members. Similarly, observers have been invited to limit themselves to providing relevant technical formation, to abstain from arguing for one or the other of the options before the Committee or to interact with members of the Committee during plenary meetings. Proposals from observers have not been addressed by the Committee unless supported by a member of the Committee. In contact and working groups observers may participate more actively and contribute to the discussions in addition to providing information or data that would inform the discussion in the contact or working group. When a contact group turns into a drafting group during a meeting of the Committee to prepare a draft decision for the Committee only members of the Committee can participate and observers are invited to leave the room. Outside the meeting rooms observers are free to interact with members of the Committee.

4.8. Implications of listing a chemical under the Convention

4.8.1 Adoption and amendment of annexes

There are different ways in which a substance may be regulated under the Convention. Listing in Annex A means Parties must take measures to *eliminate* the production and use of the chemicals subject to the provisions of that Annex.. Specific exemptions for use or production are listed in the Annex and apply only to Parties that register for them in accordance with Article 4. Listing in Annex B means that Parties must take measures to *restrict* the production and use of the chemicals in accordance with that Annex, and in light of any applicable acceptable purposes and/or specific exemptions listed in the Annex. Measures to restrict import and export must also be taken for of substances listed in Annex A or B, in accordance with Article 3 paragraph 2.

Specific exemptions are given for a period of five years and may be extended for another period of up to five years by a decision of the Conference of the Parties. Annex C is intended for substances that are unintentionally released from anthropogenic sources e.g. industrial or other processes, many of which involve combustion and/or elevated temperatures.

When the Conference of the Parties has decided to amend Annex A, B and/or C by listing a substance in one or several of the Annexes the decision enters into force after one year from communicating the amendment to the depositary for all Parties, except for those Parties that have notified the depositary, in writing, within one year from the date of the communication by the depositary that they are unable to accept it (Article 22 paragraph 3(b)), or that with respect to it, any amendment to Annex A, B or C shall enter into force only upon the deposition of its instrument of ratification, acceptance, approval or accession (Article 25, paragraph 5). At present (February 2008), 15 Parties out of 162 have made use of this provision (Argentina, Australia, Bahrain, Bangladesh, Botswana, Canada, China, India, Mauritius, Moldova, Micronesia, Slovakia, Slovenia, Vanuatu and Venezuela). Even Parties that accept the amendment without any further action from their side are thus given one year to adapt it to their legislation and take any other action needed. Some of the actions are given by the Convention itself e.g. for substances listed in Annex A or B to take the measures in Article 3, paragraphs 2 and 3; for a substance listed in Annex C to prepare an action plan according to Article 5; to include the new substance(s) listed in Annex A or B in the reporting to the Secretariat according to Article 15, paragraph 2; and for substances listed in Annexes A, B and/or C to include them in the arrangements to provide the COP with comparable monitoring data for the effectiveness evaluation according to Article 16, paragraph 2. Parties may also wish to undertake activities related to information exchange; public information, awareness and education; and research, development and monitoring (Articles 9, 10 and 11) to facilitate the implementation of the amendment.

4.8.2 Implication of amendments

Since the implications of listing a substance under the Convention may be quite far-reaching, in particular for substances that are being manufactured and used it is important that Parties prepare themselves for a possible listing early in the process. Parties that have some means of knowing which substances are used in their country, whether by a PRTR or a registry of substances or other means have an advantage in that they may foresee the consequences of listing a substance much better than others. Having some knowledge of all substances on the market in a country also gives the Party an opportunity to identify possible POPs, their uses and possible alternatives. It is also crucial to have a good understanding of who the different stakeholders are for a substance. Some Parties have through the process for the development of their National Implementation Plan established cross-sectoral committees or similar entities including all stakeholders involved in POPs. Such committees could be used to identify at an early stage all possible stakeholders, all uses of a nominated substance and the implications of substituting it with other substances, processes or techniques.

Ideally, as soon as a substance has been nominated by a Party, all Parties should make a first check on whether that substance is used in their own country, what the different uses are, which sectors of society are affected and to what extent etc. As the substance progresses through the screening, risk profile and risk management evaluation stages Parties should prepare themselves for the different possibilities if a substance is listed, i.e. whether the substance may be banned or restricted or its releases should be limited or eliminated. If a Party is aware of critical uses in its country it should provide that information through the Secretariat to the ad hoc working group for the substance and further to the Committee so that this may be taken into account in the Committee decision. They should also be prepared to come to the meeting of the Conference of the Parties where the substance will be discussed with requests for specific exemptions or acceptable purposes, as the case might be.

For a substance that has been listed in Annex A, in general, Parties must take measures to eliminate production and use, subject to the provisions of Annex A including any specific exemptions the Party is registered for. They must also take measures to ensure that import and export of the substance is imported and exported only in limited circumstances, as described in paragraph 2 of Article 3. To avoid creating specific legislation for each new substance under the Stockholm Convention, Parties might find it useful to establish a framework legislation that could handle bans and other measures in a generic way. If such legislation also contains means to get an overview of substances on the market in a country Parties have a much better possibility to predict in advance the national impact of listing a substance under the Convention.

Substances may be listed in Annex A or B with specific exemptions. These have usually been identified in the risk management evaluation process. Specific exemptions are given for a period of five years. After that period, if requested, the Conference of the Parties may decide to extend the period for up to five years. States that need the specific exemptions for a substance, if any are available, should notify the Secretariat upon becoming Parties (Article 4, paragraph 3). The National Implementation Plan might need to be updated to include the new substance and the substance would also be included in the annual reporting through the Secretariat to the Conference of the Parties.

For a substance listed in Annex B, normally there would be some critical acceptable purposes or specific exemptions for which it might still be produced and used. As evidenced by the Annex B listing for DDT, such acceptable purposes or specific exemptions could be time limited with specific deadlines or to be reviewed at regular intervals. As evidenced by the listing for DDT Parties might need to notify the Secretariat if they want to avail themselves of an acceptable purpose or specific exemption and, as appropriate update their National Implementation Plan and their reporting.

For Annex C substances the implications associated with listing are different. Since such substances are not intentionally produced or used, there is no mechanism for banning their production and use. Instead, at a minimum, certain measures in Article 5 must be taken to reduce the total releases derived from anthropogenic sources of each of the chemicals listed on Annex C, with the goal of continuing minimization and, where feasible, ultimate elimination. The Guidelines for Best Available Techniques and Provisional Guidelines for Best Environmental Practices prepared by an expert group and adopted by the third session of the Conference of the Parties (Decision SC-3/5) should be implemented, as appropriate. The action plans for Annex C substances e.g. polychlorinated dibenzo-*p*-dioxins and dibenzofurans, Polychlorinated Biphenyls (PCBs) and Hexachlorobenzene (HCB) prepared by a Party as part of its National Implementation Plan should be updated to include new Annex C substances.

5. Lessons learnt from the work of the Committee

The sections below are based on the experience gathered by the Committee during its first four sessions and might need to be revisited and updated as further experience is collected.

5.1. Generic issues

The POPRC has so far met once a year and in the latter half of the year, normally October or November, to allow for sufficient time for POPRC decisions to be translated and distributed to Parties in advance of sessions of the COP. This is particularly important when the POPRC recommends substances proposed by Parties for inclusion in Annexes A, B or C, since such a recommendation constitutes a proposal for an amendment of the Convention and must be distributed to Parties at least six months in advance of the meeting where it will be considered for adoption. However, one consequence of this meeting schedule is that experts become members of the POPRC in May when the intersessional work is already ongoing. To compensate for this the POPRC has invited those that will become members of the POPRC in May a certain year to come to the POPRC meeting the preceding year in order to get acquainted with the workings of the Committee and to sign up for intersessional working groups, in which they will become full members the following May.

Since its first meeting in November 2005 the Committee has received twelve nominations for substances to be included under the Convention. All nominations have been screened by the Secretariat for completeness according to paragraph 2 of Article 8 and found to contain the necessary information for screening by the Committee. At the screening stage, one of them was deferred to be discussed at a later meeting at the request of the nominating Party due to the need to clarify issues related to confidentiality in the background documentation and another was deferred due to late distribution of documents. Altogether eleven substances out of twelve examined by the Committee have been found to fulfil the requirements of Annex D and thus successfully passed the screening assessment by the Committee.

This means that the Committee's time and resources have on the whole been usefully spent in that no "spam" nominations, i.e. with insufficient or inadequate data, have come forward. For one substance the opinion of the Committee was divided on whether it fulfilled the criteria in Annex D or not and a vote had to be taken to allow it to move forward to the risk profile stage. This was not due to the lack of the data on the substance but to the differing interpretation of those data.

Overall, the fact that most nominations were found to fulfil the requirements of Annex D may be interpreted in two ways, both positive for the future work of the Committee. First of all, the criteria in Annex D seem on the whole to be precise enough to avoid doubtful or spurious nominations. Secondly,

Parties have exercised judgment in nominating substances and have been careful to submit the nominations together with sufficient background data.

For nine of the ten substances for which risk profiles have been prepared, the Committee has agreed that they are likely, as a result of their long-range environmental transport to lead to significant adverse human health and/or environmental effects such that global action is warranted. One substance has been deferred for further discussion at a future meeting. For the other nine substances the Committee has decided that the proposal shall proceed. Again, this shows that Parties have as a rule nominated substances that are likely to be considered as POPs by the Committee and would proceed through the risk management phase to be recommended to the Conference of the Parties for inclusion in the Convention.

An evaluation of the nine risk profiles agreed so far shows that they appear to be building on existing national or international hazard or risk assessments. A substantial number of references have been used in the POPRC risk profiles, many adding data from recent peer reviewed publications. The POPRC risk profiles currently prepared appear to be making appropriate use of new science. A focus on the best and most recent data will provide the POPRC with the best opportunity to decide whether or not a substance warrants global control under the terms of the Convention at this time.

The risk profiles for the ten substances were produced by the ad hoc working groups and nine of them were finally evaluated and agreed to by the Committee. The process was run with very limited support from invited experts. Overall, this indicates that the expertise in the Committee, facilitated by the input from observers, has been adequate to handle the screening and risk profile stage.

So far, the Committee has performed a risk management evaluation for nine substances. All nine have been successfully evaluated and the Committee has recommended them to be considered by the Conference of the Parties for listing in Annexes A, B and/or C of the Convention. During the risk management evaluation the Committee has had access to the expertise of a couple of invited experts to facilitate its task. The input of observers, in particular from the manufacturing or user industry for some still or recently produced substances has been valuable in making the risk management evaluations comprehensive and up to date. Still, the limited input to the risk management evaluation from many regions leaves some uncertainties as to the continued use of some of the substances in different parts of the world.

During the risk management discussions and in particular in formulating the decisions and subsequent recommendations to the Conference of the Parties the Committee has several times come up against the problem of defining the specific substances that should be listed. In most cases, the Committee has developed a recommendation that, while being specific to the substance in question, takes into account how other proposed substances have been defined. The recurring issue of defining the substance(s) to be listed indicates that great care should be taken by the nominating Party for a substance to define exactly which substance or substances it would like to see listed in the Convention.

The Committee has performed most of the work intersessionally by creating open ended ad hoc working groups for each substance with participation from members, Parties, non-Parties and other observers. The working groups have also continued to function during the meetings as contact groups for the substances. This way of working has proved to be very productive, interactive and has greatly facilitated the participation of observers in the work of the Committee. In addition, the inclusiveness of the process has in most cases contributed to the acceptance of the Committee's decisions and products e.g. the risk profiles and risk management evaluations.

The sessions of the Committee have all had very long agendas and have used the available time to the full, including evening sessions with contact groups, in one case not finishing until very late in the evening (11 p.m.) on the last day. The third session was particularly difficult in that it had to address five

risk management evaluations and four risk profiles. The inclusion of pre-sessions with the ad hoc working groups meeting face to face the day before the session opens to sort out remaining issues has helped to ease the work load during the meeting but not eliminated it. With a limited number of substances in the pipeline, at present one at the screening stage and two at the risk profile stage, the Committee may not be so overloaded at its next sessions.

Overall, progress to date shows that the Committee has, with substantial efforts, been able to handle all the nominations received within its work plan without being forced to make priorities between them and to manage screening assessments, assessment of risk profiles and risk management evaluations for individual substances at the same meeting. The Committee has, with the widely acknowledged assistance of Parties, non-Parties and other observers, been able to process a substantial number of substances at different stages in the process with very limited external support. The outputs of the Committee, in the form of the reports from its meetings, the screening assessments and the revised risk profiles and risk management evaluations are documents of high quality that should be of great use to Parties and others that wish to follow and understand the Article 8 listing process and the associated role of the POPRC.

5.2. Specific issues

Article 8 only describes in generic terms how the Committee should go about assessing a nominated substance at the screening and risk profile stage. The Terms of Reference for the Committee area also silent on how to perform the screening and risk profile assessment. Even if all nominated substances should fulfil the POPs criteria they might do this to a varying degree and present specific problems in their assessment. Each of the substances nominated so far has presented issues for the Committee during their assessment. Some of these issues are briefly presented below. For some of them the Committee has proposed a way forward on how to address them and, as appropriate, sought the advice and/or endorsement of the Conference of the Parties on their proposal. Further information may be found in the reports of the Committee and the Conference of the Parties.

5.2.1 Naming of commercial mixtures

Among the first ten substances two nominations, pentabromodiphenyl ether and octabromodiphenyl ether were actually for certain substances, which are components of commercial mixtures of brominated diphenyl ethers. The individual component substances are not manufactured as such; it is the mixtures that are manufactured. This raised the issue of how to name substances or products in mixtures for listing in the Convention and how to evaluate them. Of the different options before the Committee most members expressed a preference for an approach, which provided for the naming of specific components of concern in a mixture or all components with a specified degree of substitution, which balanced simplicity and transparency with comprehensiveness. In general, the Committee recognized a need for care in naming mixtures by class or classes of substances, as it might unintentionally include congeners not found in the nominated mixture...

For the OBDE the Committee noted (Decision 4-1) that commercial octabromodiphenyl ether is a mixture of brominated diphenyl ether congeners in which the main components are heptabromodiphenyl ethers (Chemicals Abstracts Service (CAS) number 68928-80-3) and octabromodiphenyl ethers (CAS number 32536-52-0), which have the highest concentration by weight with respect to the other components of the mixture and decided that the hexa- and heptabromodiphenyl ether components of the commercial octabromodiphenyl ether were likely, as a result of long range environmental transport, to lead to significant adverse human health and/or environmental effects such that global action is warranted. In addition the Committee decided, taking into account that a lack of full scientific certainty should not prevent a proposal to list a chemical in the annexes of the Convention from proceeding, that the octa- and nona bromodiphenyl ether components of the commercial octabromodiphenyl ether are likely, as a result of long-range environmental transport, to lead to significant adverse human health and/or environmental effects such that global action is warranted.

5.2.2 Approach to isomers of nominated substances

For a nominated substance, lindane or γ -hexachlorocyclohexane (γ -HCH), the Committee noted that it had two isomers that are produced in significant quantities during the manufacture of lindane, namely α - and β -hexachlorocyclohexane (α - and β -HCH). These were not included in the original nomination. After discussions at two subsequent meetings the Committee recommended and the Conference of the Parties agreed on an approach for considering isomers or groups of isomers. In brief, when considering a substance the Committee could identify any important isomers with individual commercial uses and, where appropriate, urge any Party to consider proposing the isomer or isomers for listing. Providing occasional references to other isomers in the original proposal would not be sufficient for their full consideration. If appropriate, the Committee may consider the information related to all the proposed isomers in an integrated risk profile, regardless of when they were proposed and by which Party. It should be noted that Mexico, in addition to nominating γ -HCH (lindane) also submitted nominations for the α - and β -isomers of the HCH.

5.2.3 Precursors

Another substance, perfluorooctane sulphonate, or PFOS, mainly occurs incorporated in derivatives e.g. salts, amides, and others and is supposed to be released as a result of their degradation. The original nomination for PFOS acid had included 96 derivatives one of which was perfluorooctane sulphonate fluoride (PFOSF) but the Committee had examined only a few of them specifically during the screening for Annex D criteria. The Annex E and F information request, however, covered all such substances. The Committee evaluated PFOS and its salts and PFOSF and concluded that there was sufficient information to conclude that these substances satisfied the screening criteria in Annex D and to evaluate them against Annex E. The Committee agreed that, given that PFOSF was a common precursor for PFOS derivatives and in view of its rapid degradation rate, listing PFOSF along with the PFOS acid and salts would be an effective measure to reduce PFOS contamination of the environment.

In the discussion to reach this conclusion several different views were expressed e.g. that PFOS precursors should be grouped together and that when there was evidence that they would convert to PFOS in the environment they should be listed in the Convention; or that precursors should only be

nominated for inclusion in the Convention if they had properties similar to PFOS itself, or that each precursor should be evaluated for degradation and listed (UNEP/POPS/POPRC/3/20, paragraphs 20-21)

5.2.4 Substances no longer produced or used

Two nominated substances, chlordecone and hexabromobiphenyl, had not been manufactured or used for a long time. In discussing these substances concern was raised in the Committee about the lack of monitoring data in the draft risk profile, in particular from remote areas. However, lack of data did not necessarily mean the non-existence of the chemical and the potential of the chemical for long range environmental transport might be deduced from the results of studies into environmental fate properties. Considering whether to list a chemical which was thought to be no longer used or produced and for which there was little evidence of long-range transport, the Committee noted that it was difficult to determine whether a chemical was no longer used or produced prior to receiving information requested under Annex F and there was also the risk that its production might recommence unless there was global ban through the Convention. For hexabromobiphenyl there was also the risk that, because other brominated fire-retardants were being phased out at the same time and demand for such products was increasing, hexabromobiphenyl production or use of stocks might occur. (UNEP/POPS/POPRC/2/17, paragraphs 52-64).

For pentachlorobenzene, production and use of the substance has also stopped some years ago, although it is still used in some parts of the world as an intermediate in the production of quintozene, a fungicide.

In relation to pentachlorobenzene there was considerable discussion in the Committee related to the possible use of risk quotients and comparisons of levels of toxicity determined in laboratory animal species and determining what was likely happening to different species in the environment. Comparisons between inbred laboratory species and the environment was considered by some members of the Committee as being difficult to make as only parts of the environment were sampled and a risk calculation was made on those selected parts only without knowing the extent of environmental contamination. Assessment methods for substances that are persistent and bioaccumulating are still under discussion and no consensus has yet emerged. Inclusion of text from one NGO in the working group draft risk profile also caused concern since the concepts on which the NGO's calculations were based were not universally accepted (UNEP/POPS/POPRC/3/20, paragraph 91).

5.2.5 Consideration of data for the bioaccumulation criterion in Annex D

The question of how to consider data on bioaccumulation has followed the Committee since its first meeting. In the discussion of whether lindane fulfilled the screening criteria in Annex D, one expert pointed out that, although the weight of evidence for bioaccumulation was deemed sufficient, the numerical bioaccumulation criterion was not met as there was insufficient evidence that the bioconcentration factor or bioaccumulation factor in aquatic species for the chemical was greater than 5,000 or that the log Kow was greater than 5. At the second meeting it was noted that, although lindane did not quite fulfil all the quantitative criteria for listing, the draft risk profile and recent studies had demonstrated the chemical's persistence and potential for bioaccumulation and its status as a persistent organic pollutant.

At the third meeting of the Committee the Chair recalled that at the second meeting of the Committee and the third meeting of the Conference of the Parties it had been requested that the Committee give due consideration to the full range of screening criteria listed in Annex D of the

Convention. In response to that request the Committee addressed the issue of assessing bioaccumulation potential when a substance did not quite fulfil the quantitative criteria listed in subparagraph 1 (c) (i) of Annex D. A paper related to the assessment of bioaccumulation data under Annex D of the Convention was presented and revised. The Committee took note of the document as a useful aid to its work, with the understanding that it was a living document that could be further revised at any future meeting in the light of experience.

As an outcome of its first four sessions, although six of the eleven chemicals nominated and screened so far had not fully met the quantitative bioaccumulation threshold in subparagraph 1(c) (i) of Annex D, the Committee has in each case considered that these substances have met the bioaccumulation criterion taking all information in subparagraphs 1 (c) (i), (ii), and (iii) (i.e., high bioaccumulation in other species and indication of bioaccumulation potential in biota) into account in an integrative and balanced manner as stated in Article 8, paragraph 3 of the Convention. Past recommendations on the interpretation of data related to environmental bio-accumulation and bio-magnification should be revisited during the drafting of future risk profiles.

5.3. Issues for further consideration

While the Committee has been able to reach at least a provisional agreement with regard to some of the issues above such agreements are to be considered as work in progress and should be reviewed as the need arises. There are several issues where the Committee has not yet gathered enough experience to try to solidify its experience into writing.

There are e.g. cases where there is either very limited data for some of the screening criteria or where one of the numerical criteria in Annex D, 1(b)(i) or (c)(i) are not fully met, while other data e.g. monitoring in different compartments in the environment and in biota strongly indicate that the substance is both persistent and bioaccumulating. There is also the case when e.g. the bioaccumulation factor is below the numerical value in Annex D, 1(c) (i) but the substance has high toxicity (c) (ii) or is present in the environment at locations distant from sources (c)(iii). The general guidance for how to handle such situations is given by Article 8, paragraph 3, and so far consensus has been achieved on how to interpret paragraph 3 in the individual cases. The discussion to date also shows that members of the Committee attach different weight to numerical data on persistence and bioaccumulation as compared to other supporting data e.g. monitoring data. There is also the question on how to proceed when there is little data on levels in distant locations or from monitoring and fate properties or models might need to be used.

The completeness of the risk profile has been discussed for several substances, in particular for those which fulfil the criteria of Annex D, but are no longer manufactured or used. In some cases, data on presence in the environment that could be evidence of on-going long-range environmental transport is either limited, out of date, or missing. Other issues are related to e.g. whether the risk profile should be a full monograph of all effects and properties of the substance coming close to a full risk assessment or whether the focus should be on the assessment of the substance as a POP.

The ‘Synthesis of Information’ and ‘Concluding Statement’ of a Risk Profile are critical parts of the summary rationale for why global action on a nominated chemical is warranted. In the nine risk profiles agreed so far by the Committee, most had comprehensive summary rationales which drew on the critical data elements contained within the body of the report and linked them into an overall weight of evidence. However, not all summary rationales made full use of the data in the body of the report. The logic applied and described in the ‘Synthesis of Information’ and ‘Concluding Statement’ of a Risk Profile is likely to be the most carefully examined text in each report. Parties and observers to the Convention will need to be convinced that the case is strong. For the future the Committee may consider the data element

listed in Table 1 as a check list for developing the ‘Synthesis of Information’ and ‘Concluding Statement’ of a Risk Profile to ensure that they have considered all the available data in the profile and linked it convincingly.

Similarly, the adequacy and completeness of the risk management information has been the subject of discussion. Here the problem is not so much related to the assessment of the substance as to whether there has been sufficient information on uses etc. from Parties and observers from all regions so that a true global picture of the use can be obtained, as well as a realistic assessment of the implications of listing the substance in Annexes A, B and/or C of the Convention.

Due to the small number of substances it is still too early to develop formal approaches for each of these issues but as the Committee gathers more experience it is hoped that a policy will emerge that can be solidified into written guidance.

6. Linkages to other international processes

The Stockholm Convention is the latest addition to a number of multilateral environmental agreements that address chemicals e.g. the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides and International Trade and the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal and at the regional level the UNECE Convention on Long Range Transboundary Air Pollution and its POPs Protocol. There are several substances and groups of substances that are addressed by more than one of the four conventions. Some of the substances listed in the Stockholm Convention are also listed in the Rotterdam Convention, while the Basel Convention has developed technical guidelines for several types of POPs waste. The Stockholm Convention covers production, use, import and export of POPs, and also covers waste issues related to POPs. The Rotterdam Convention covers import and export of certain types of substances, while the Basel Convention addresses the control of transboundary movements of hazardous wastes and their disposal.

The structure of the Rotterdam Convention is similar to the Stockholm Convention in that it has a subsidiary body, the Chemicals Review Committee, which reviews nominations for additional substances and makes recommendations to the Conference of the Parties. The POPs Review Committee has benefitted greatly from the working experience gathered in the Chemicals Review Committee, in particular with respect to structuring the work of the Committee in and between sessions. It should be noted, though, that there is a difference in that the Chemicals Review Committee does not make chemicals health and environment assessments.

The Conferences of the Parties to the Basel, Rotterdam and Stockholm Conventions by separate decisions agreed to establish an ad hoc joint working group (the “AHJWG”) to prepare joint recommendations on enhanced cooperation and coordination among the three conventions for submission to the Conference of the Parties of all three conventions. The third and final meeting of the AHJWG has agreed on a recommendation to the next sessions of the Conferences of the Parties of the three conventions, starting with the Basel Convention in June 2008, the Rotterdam Convention in October 2008 and the Stockholm Convention in May 2009. The recommendations cover a variety of issues e.g. organizational issues in the field, technical issues, information management and public awareness issues, and administrative issues. The recommendations of the AHJWG have been endorsed by the 9th session of the Basel Convention COP in June 2008 and the 4th session of the Rotterdam Convention COP in October 2008 and will be considered by the 4th session of the Stockholm Convention COP in May 2009.

The Strategic Approach to International Chemicals Management (SAICM) was mandated by the United Nations Environment Programme (UNEP) and endorsed by the Johannesburg World Summit on Sustainable Development in 2002 and the New York World Summit in September 2005. It has been developed by a multi-stakeholder Preparatory Committee, co-convened by UNEP, the Intergovernmental Forum on Chemical Safety (IFCS) and the Inter-Organization Programme for the Sound Management of Chemicals (IOMC). The first session of the International Conference on Chemicals Management (ICCM1) held in Dubai in February 2006 adopted the three basic documents of SAICM, the Dubai Declaration on International Chemical Management, the Overarching Policy Strategy and the Global Action Plan. With regard to the Stockholm Convention the Declaration states *i.a.*: “We are determined to implement the applicable chemicals management agreements to which we are Party, strengthen the coherence and synergies that exist between them and work to address, as appropriate, existing gaps in the framework of international chemicals policy.” SAICM can be seen as an overarching policy framework for managing chemicals, including POPs to ensure that in the words of the Johannesburg Plan of Implementation, paragraph 23, “aiming to achieve, by 2020, that chemicals are used and produced in ways that lead to the minimization of significant adverse effects on human health and the environment”. A Quick Start Programme with a voluntary fund supported by donor countries has been set up to promote the implementation of SAICM during the first five years.

The support that the SAICM process might give to the implementation of the Stockholm Convention lies mainly in assisting countries to develop generic legislation on chemicals that also covers persistent, bioaccumulating and toxic substances. As part of such legislation, measures to get an overview of the chemicals on the market, e.g. PRTRs, substance or product registries, might facilitate work in the POPRC, particularly in the risk management evaluation phase.

7. Concluding remarks

Although the Committee has only worked for a limited time it has performed an enormous amount of work in a short time. It has submitted a big output in the form of recommendations on nine substances to be listed under the Convention for the Conference of the Parties at its fourth session in 2009. The Committee has thus so far fulfilled its mandate and exceeded expectations. The concerns voiced by some Parties that the Committee would rapidly be overloaded with work, and would have to make priorities on which substances to address first, have in general proved to be overstated. The Committee has not been forced to make priorities and with exception of the third meeting of the Committee, it has as a whole not been overloaded with work. The Committee has also, with two exceptions, taken its decisions by consensus. The work plans for preparing risk profiles and risk management evaluations have been very tight, with no room for mistakes, but so far, all working groups have been able to submit their documents in time for consideration at the subsequent meeting. The expertise of the Committee has been adequate to handle most of the issues raised in the process and the concern that the Committee would be overloaded with invited experts has proved to be exaggerated.

8. References

Stockholm Convention on Persistent Organic Pollutants, UNEP, 2001
www.pops.int ; www.pic.int ; www.basel.int ; <http://www.chem.unep.ch/saicm/>
http://kemi.se/templates/Page_2859.aspx
<http://toxnet.nlm.nih.gov/cgi-bin/sis/htmlgen?TOXLINE>
http://www.oecd.org/linklist/0,3435,en_2649_34365_2734144_1_1_1_1,00.html
<http://webnet3.oecd.org/echempportal/>

Appendix 1: Relevant articles in the Stockholm Convention

Article 1

Objective

Mindful of the precautionary approach as set forth in Principle 15 of the Rio Declaration on Environment and Development, the objective of this Convention is to protect human health and the environment from persistent organic pollutants.

Article 3

Measures to reduce or eliminate releases from intentional production and use

1. Each Party shall:

- (a) Prohibit and/or take the legal and administrative measures necessary to eliminate:
 - (i) Its production and use of the chemicals listed in Annex A subject to the provisions of that Annex; and
 - (ii) Its import and export of the chemicals listed in Annex A in accordance with the provisions of paragraph 2; and
- (b) Restrict its production and use of the chemicals listed in Annex B in accordance with the provisions of that Annex.

2. Each Party shall take measures to ensure:

- (a) That a chemical listed in Annex A or Annex B is imported only:
 - (i) For the purpose of environmentally sound disposal as set forth in paragraph 1 (d) of Article 6; or
 - (ii) For a use or purpose which is permitted for that Party under Annex A or Annex B;
- (b) That a chemical listed in Annex A for which any production or use specific exemption is in effect or a chemical listed in Annex B for which any production or use specific exemption or acceptable purpose is in effect, taking into account any relevant provisions in existing international prior informed consent instruments, is exported only:
 - (i) For the purpose of environmentally sound disposal as set forth in paragraph 1 (d) of Article 6;
 - (ii) To a Party which is permitted to use that chemical under Annex A or Annex B; or
 - (iii) To a State not Party to this Convention which has provided an annual certification to the exporting Party. Such certification shall specify the intended use of the chemical and include a statement that, with respect to that chemical, the importing State is committed to:
 - a. Protect human health and the environment by taking the necessary measures to minimize or prevent releases;
 - b. Comply with the provisions of paragraph 1 of Article 6; and
 - c. Comply, where appropriate, with the provisions of paragraph 2 of Part II of Annex B.The certification shall also include any appropriate supporting documentation, such as legislation, regulatory instruments, or administrative or policy guidelines. The exporting Party shall transmit the certification to the Secretariat within sixty days of receipt.
- (c) That a chemical listed in Annex A, for which production and use specific exemptions are no longer in effect for any Party, is not exported from it except for the purpose of environmentally sound disposal as set forth in paragraph 1 (d) of Article 6;
- (d) For the purposes of this paragraph, the term “State not Party to this Convention” shall include, with respect to a particular chemical, a State or regional economic integration organization that has not agreed to be bound by the Convention with respect to that chemical.

3. Each Party that has one or more regulatory and assessment schemes for new pesticides or new industrial chemicals shall take measures to regulate with the aim of preventing the production and use of new pesticides or new industrial chemicals which, taking into consideration the criteria in paragraph 1 of Annex D, exhibit the characteristics of persistent organic pollutants.

4. Each Party that has one or more regulatory and assessment schemes for pesticides or industrial chemicals shall, where appropriate, take into consideration within these schemes the criteria in paragraph 1 of Annex D when conducting assessments of pesticides or industrial chemicals currently in use.
5. Except as otherwise provided in this Convention, paragraphs 1 and 2 shall not apply to quantities of a chemical to be used for laboratory-scale research or as a reference standard.
6. Any Party that has a specific exemption in accordance with Annex A or a specific exemption or an acceptable purpose in accordance with Annex B shall take appropriate measures to ensure that any production or use under such exemption or purpose is carried out in a manner that prevents or minimizes human exposure and release into the environment. For exempted uses or acceptable purposes that involve intentional release into the environment under conditions of normal use, such release shall be to the minimum extent necessary, taking into account any applicable standards and guidelines.

Article 8

Listing of chemicals in Annexes A, B and C

1. A Party may submit a proposal to the Secretariat for listing a chemical in Annexes A, B and/or C. The proposal shall contain the information specified in Annex D. In developing a proposal, a Party may be assisted by other Parties and/or by the Secretariat.
2. The Secretariat shall verify whether the proposal contains the information specified in Annex D. If the Secretariat is satisfied that the proposal contains the information so specified, it shall forward the proposal to the Persistent Organic Pollutants Review Committee.
3. The Committee shall examine the proposal and apply the screening criteria specified in Annex D in a flexible and transparent way, taking all information provided into account in an integrative and balanced manner.
4. If the Committee decides that:
 - (a) It is satisfied that the screening criteria have been fulfilled, it shall, through the Secretariat, make the proposal and the evaluation of the Committee available to all Parties and observers and invite them to submit the information specified in Annex E; or
 - (b) It is not satisfied that the screening criteria have been fulfilled, it shall, through the Secretariat, inform all Parties and observers and make the proposal and the evaluation of the Committee available to all Parties and the proposal shall be set aside.
5. Any Party may resubmit a proposal to the Committee that has been set aside by the Committee pursuant to paragraph 4. The resubmission may include any concerns of the Party as well as a justification for additional consideration by the Committee. If, following this procedure, the Committee again sets the proposal aside, the Party may challenge the decision of the Committee and the Conference of the Parties shall consider the matter at its next session. The Conference of the Parties may decide, based on the screening criteria in Annex D and taking into account the evaluation of the Committee and any additional information provided by any Party or observer, that the proposal should proceed.
6. Where the Committee has decided that the screening criteria have been fulfilled, or the Conference of the Parties has decided that the proposal should proceed, the Committee shall further review the proposal, taking into account any relevant additional information received, and shall prepare a draft risk profile in accordance with Annex E. It shall, through the Secretariat, make that draft available to all Parties and observers, collect technical comments from them and, taking those comments into account, complete the risk profile.
7. If, on the basis of the risk profile conducted in accordance with Annex E, the Committee decides:
 - (a) That the chemical is likely as a result of its long-range environmental transport to lead to significant adverse human health and/or environmental effects such that global action is warranted, the proposal shall proceed. Lack of full scientific certainty shall not prevent the proposal from proceeding. The Committee shall, through the Secretariat, invite information from all Parties and observers relating to the considerations specified in Annex F. It shall then prepare a risk management evaluation that includes an analysis of possible control measures for the chemical in accordance with that Annex; or

- (b) That the proposal should not proceed, it shall, through the Secretariat, make the risk profile available to all Parties and observers and set the proposal aside.
8. For any proposal set aside pursuant to paragraph 7 (b), a Party may request the Conference of the Parties to consider instructing the Committee to invite additional information from the proposing Party and other Parties during a period not to exceed one year. After that period and on the basis of any information received, the Committee shall reconsider the proposal pursuant to paragraph 6 with a priority to be decided by the Conference of the Parties. If, following this procedure, the Committee again sets the proposal aside, the Party may challenge the decision of the Committee and the Conference of the Parties shall consider the matter at its next session. The Conference of the Parties may decide, based on the risk profile prepared in accordance with Annex E and taking into account the evaluation of the Committee and any additional information provided by any Party or observer, that the proposal should proceed. If the Conference of the Parties decides that the proposal shall proceed, the Committee shall then prepare the risk management evaluation.
9. The Committee shall, based on the risk profile referred to in paragraph 6 and the risk management evaluation referred to in paragraph 7 (a) or paragraph 8, recommend whether the chemical should be considered by the Conference of the Parties for listing in Annexes A, B and/or C. The Conference of the Parties, taking due account of the recommendations of the Committee, including any scientific uncertainty, shall decide, in a precautionary manner, whether to list the chemical, and specify its related control measures, in Annexes A, B and/or C.

Article 19

Conference of the Parties

6. The Conference of the Parties shall, at its first meeting, establish a subsidiary body to be called the Persistent Organic Pollutants Review Committee for the purposes of performing the functions assigned to that Committee by this Convention. In this regard:
- (a) The members of the Persistent Organic Pollutants Review Committee shall be appointed by the Conference of the Parties. Membership of the Committee shall consist of government-designated experts in chemical assessment or management. The members of the Committee shall be appointed on the basis of equitable geographical distribution;
 - (b) The Conference of the Parties shall decide on the terms of reference, organization and operation of the Committee; and
 - (c) The Committee shall make every effort to adopt its recommendations by consensus. If all efforts at consensus have been exhausted, and no consensus reached, such recommendation shall as a last resort be adopted by a two-thirds majority vote of the members present and voting.

Annex D

INFORMATION REQUIREMENTS AND SCREENING CRITERIA

1. A Party submitting a proposal to list a chemical in Annexes A, B and/or C shall identify the chemical in the manner described in subparagraph (a) and provide the information on the chemical, and its transformation products where relevant, relating to the screening criteria set out in subparagraphs (b) to (e):
 - (a) Chemical identity:
 - (i) Names, including trade name or names, commercial name or names and synonyms, Chemical Abstracts Service (CAS) Registry number, International Union of Pure and Applied Chemistry (IUPAC) name; and
 - (ii) Structure, including specification of isomers, where applicable, and the structure of the chemical class;
 - (b) Persistence:
 - (i) Evidence that the half-life of the chemical in water is greater than two months, or that its half-life in soil is greater than six months, or that its half-life in sediment is greater than six months; or
 - (ii) Evidence that the chemical is otherwise sufficiently persistent to justify its consideration within the scope of this Convention;
 - (c) Bio-accumulation:
 - (i) Evidence that the bio-concentration factor or bio-accumulation factor in aquatic species for the chemical is greater than 5,000 or, in the absence of such data, that the log K_{ow} is greater than 5;
 - (ii) Evidence that a chemical presents other reasons for concern, such as high bio-accumulation in other species, high toxicity or ecotoxicity; or
 - (iii) Monitoring data in biota indicating that the bio-accumulation potential of the chemical is sufficient to justify its consideration within the scope of this Convention;
 - (d) Potential for long-range environmental transport:
 - (i) Measured levels of the chemical in locations distant from the sources of its release that are of potential concern;
 - (ii) Monitoring data showing that long-range environmental transport of the chemical, with the potential for transfer to a receiving environment, may have occurred via air, water or migratory species; or
 - (iii) Environmental fate properties and/or model results that demonstrate that the chemical has a potential for long-range environmental transport through air, water or migratory species, with the potential for transfer to a receiving environment in locations distant from the sources of its release. For a chemical that migrates significantly through the air, its half-life in air should be greater than two days; and
 - (e) Adverse effects:
 - (i) Evidence of adverse effects to human health or to the environment that justifies consideration of the chemical within the scope of this Convention; or
 - (ii) Toxicity or ecotoxicity data that indicate the potential for damage to human health or to the environment.
2. The proposing Party shall provide a statement of the reasons for concern including, where possible, a comparison of toxicity or ecotoxicity data with detected or predicted levels of a chemical resulting or anticipated from its long-range environmental transport, and a short statement indicating the need for global control.

3. The proposing Party shall, to the extent possible and taking into account its capabilities, provide additional information to support the review of the proposal referred to in paragraph 6 of Article 8. In developing such a proposal, a Party may draw on technical expertise from any source.

Annex E

INFORMATION REQUIREMENTS FOR THE RISK PROFILE

The purpose of the review is to evaluate whether the chemical is likely, as a result of its long-range environmental transport, to lead to significant adverse human health and/or environmental effects, such that global action is warranted. For this purpose, a risk profile shall be developed that further elaborates on, and evaluates, the information referred to in Annex D and includes, as far as possible, the following types of information:

- (a) Sources, including as appropriate:
 - (i) Production data, including quantity and location;
 - (ii) Uses; and
 - (iii) Releases, such as discharges, losses and emissions;

- (b) Hazard assessment for the endpoint or endpoints of concern, including a consideration of toxicological interactions involving multiple chemicals;

- (c) Environmental fate, including data and information on the chemical and physical properties of a chemical as well as its persistence and how they are linked to its environmental transport, transfer within and between environmental compartments, degradation and transformation to other chemicals. A determination of the bio-concentration factor or bio-accumulation factor, based on measured values, shall be available, except when monitoring data are judged to meet this need;

- (d) Monitoring data;

- (e) Exposure in local areas and, in particular, as a result of long-range environmental transport, and including information regarding bio-availability;

- (f) National and international risk evaluations, assessments or profiles and labelling information hazard classifications, as available; and

- (g) Status of the chemical under international conventions.

Annex F

INFORMATION ON SOCIO-ECONOMIC CONSIDERATIONS

An evaluation should be undertaken regarding possible control measures for chemicals under consideration for inclusion in this Convention, encompassing the full range of options, including management and elimination. For this purpose, relevant information should be provided relating to socioeconomic considerations associated with possible control measures to enable a decision to be taken by the Conference of the Parties. Such information should reflect due regard for the differing capabilities and conditions among the Parties and should include consideration of the following indicative list of items:

- (a) Efficacy and efficiency of possible control measures in meeting risk reduction goals:
 - (i) Technical feasibility; and
 - (ii) Costs, including environmental and health costs;

- (b) Alternatives (products and processes):
 - (i) Technical feasibility;
 - (ii) Costs, including environmental and health costs;
 - (iii) Efficacy;
 - (iv) Risk;
 - (v) Availability; and
 - (vi) Accessibility;

- (c) Positive and/or negative impacts on society of implementing possible control measures:
 - (i) Health, including public, environmental and occupational health;
 - (ii) Agriculture, including aquaculture and forestry;
 - (iii) Biota (biodiversity);
 - (iv) Economic aspects;
 - (v) Movement towards sustainable development; and
 - (vi) Social costs;

- (d) Waste and disposal implications (in particular, obsolete stocks of pesticides and clean-up of contaminated sites):
 - (i) Technical feasibility; and
 - (ii) Cost;

- (e) Access to information and public education;

- (f) Status of control and monitoring capacity; and

- (g) Any national or regional control actions taken, including information on alternatives, and other relevant risk management information.

Appendix 2: Decisions of the Conference of Parties

SC-1/7: Establishment of the Persistent Organic Pollutants Review Committee

The Conference of the Parties,

1. *Decides* to establish pursuant to paragraph 6 of Article 19 of the Convention a subsidiary body to be called the Persistent Organic Pollutants Review Committee for the purposes of performing the functions assigned to that Committee by the Convention;
2. *Adopts* the terms of reference of the Persistent Organic Pollutants Review Committee contained in the annex to the present decision.

Annex to decision SC-1/7

Terms of reference of the Persistent Organic Pollutants Review Committee

Mandate

1. The Persistent Organic Pollutants Review Committee (hereinafter referred to as the “Committee”) is a subsidiary body to the Conference of the Parties of the Stockholm Convention on Persistent Organic Pollutants established in accordance with paragraph 6 of Article 19 of the Convention. The Committee shall perform the functions assigned to it by the Convention.

Membership

2. The members of the Committee shall be appointed by the Conference of the Parties on the basis of equitable geographical distribution, taking into account gender and the need for a balance between different types of expertise.
3. The Committee shall consist of 31 members drawn from the regions identified in appendix I to the present terms of reference, as follows:

African States:	8
Asian and Pacific States:	8
Central and Eastern European States:	3
Latin American and Caribbean States:	5
Western European and other States:	7
4. Members of the Committee shall be government-designated experts in chemical assessment or management from Parties.
5. When designating experts, Parties within a region as defined in appendix I shall have due regard to a balance between different types of expertise and between genders, and ensure that expertise in health and environment is represented. Parties shall provide curricula vitae, to be submitted to the Conference of the Parties, for the designated experts.
6. The Governments listed in appendix II shall each formally designate one expert and, through the Secretariat, provide their names and relevant qualifications to the Conference of the Parties by 1 August 2005. Such experts shall serve as members of the Persistent Organic Pollutants Review Committee on an interim basis, pending formal confirmation of their appointment by the Conference of the Parties at its second meeting.
7. For the purposes of these initial appointments and in order to promote an orderly rotation of membership, one half of the members of each region shall be nominated for an initial term of two years, and the remaining members of each region shall be nominated for an initial term of four years, commencing from the date of the second meeting of the Conference of the Parties.¹
8. Subject to the provisions of paragraphs 6 and 7 above, each member shall serve for a term of four years from the date of appointment, and for no more than two consecutive terms.

¹ For those regions for which the number of members is an odd number, the phrase “one half of the members of such region” shall be interpreted to mean the nearest whole number less than one half of the number of members in that region. Accordingly, if a region has five members, one half of that number will be taken to mean two.

9. A new list of Governments to replace the list in appendix II shall be adopted, consistent with the provisions indicated in paragraph 2, at subsequent meetings of the Conference of the Parties so that vacancies created by outgoing members may be filled. Any vacancy arising during an intersessional period shall be filled in accordance with such procedure as the region concerned may determine and the qualifications of the new member shall be circulated to the Parties to the Convention through the Secretariat.

Invited experts

10. The Committee may invite no more than 30 experts who are not members of the Committee, with due consideration to the balance between developed and developing countries, to support it in its work. A roster of experts shall be established. Parties may designate experts for inclusion in that roster, noting their areas of expertise or specific substance knowledge.
11. The Committee shall establish and apply criteria, which shall be approved by the Conference of the Parties, for the selection of experts from the roster to provide needed expertise.
12. If no expert on the roster has specific expertise on a certain issue, the Committee may invite other experts to participate in the work of the Committee in accordance with the criteria referred to in paragraph 11.

Other participants

13. The meetings of the Committee shall be open to:
 - (a) Parties to the Convention, which shall be treated as observers in accordance with the rules of procedure of the Conference of the Parties for the purpose of their participation in the committee;
 - (b) Observers, in accordance with the rules of procedure of the Conference of the Parties.
14. The Committee shall invite any Party that has submitted a proposal for listing a chemical in annexes A, B or C of the Convention to its meetings where the chemical is discussed.

Conflict of interest

15. Each member of the committee as well as each invited expert shall sign a declaration of interest as set out in decision SC-1/8 prior to participating in the work of the committee.
16. The Conference of the Parties shall decide on individual cases of conflict of interest concerning members of the Committee.
17. The Committee shall decide on individual cases of conflict of interest concerning experts invited to take part in the work of the Committee.
18. For invited experts from industry and other non-governmental organizations, the Committee shall identify through conflict of interest procedures whether any potential conflict of interest exists in order to decide on their participation.

Confidentiality of data

19. The Committee shall establish confidentiality arrangements as a matter of priority. In handling confidential information and in establishing such arrangements, the Committee shall ensure that paragraph 5 of Article 9 of the Convention is respected.

Officers of the Committee

20. The Conference of the Parties shall elect the Chair of the Committee, and the Committee shall thereafter elect from among its members a Vice-Chair. Elections shall take into account geographical and gender balance among the officers.

Administrative and procedural matters

21. In addition to following the procedures in Article 8 and paragraph 6 of Article 19 of the Convention, the Committee shall apply, *mutatis mutandis*, the rules of procedure of the Conference of the Parties, unless otherwise provided in these terms of reference.
22. The Committee may establish such arrangements as are necessary to facilitate its work.
23. The Chair and the Vice-Chair of the Committee may exercise the right to vote.

Work plans

24. The Committee shall work in an efficient and timely manner and shall set priorities on chemicals, having regard to its work load. For each chemical under consideration, the Committee shall establish a work plan

with time frames. Work plans shall be flexible and take into account the work load and the need to acquire sufficient information from relevant stakeholders. The Committee shall submit its work plans to each ordinary meeting of the Conference of the Parties.

Meetings

25. The Secretariat, in consultation with the officers of the Committee, shall prepare a provisional agenda for each meeting of the Committee. The provisional agenda shall be communicated to all Parties and observers at least six weeks before the opening of the Committee meeting.
26. The Committee should meet at least once a year, subject to availability of funds and work requirements. Meetings shall take place between meetings of the Conference of the Parties and be scheduled so that proposals for listing chemicals can go forward to the next meeting of the Conference of the Parties for consideration.
27. Technical documents shall be distributed at least three months in advance of meetings. Other documents shall be distributed at least six weeks in advance of meetings.
28. The Committee shall prepare for its meetings the risk profiles and risk management evaluations required by Article 8 of the Convention. Members of the Committee may lead the preparation of such documents, drawing in the first instance upon existing peer-reviewed material. The nominating Party or Parties may facilitate the process by submitting a proposal for listing of a chemical together with a draft risk profile and a draft risk management evaluation.
29. The Committee may establish ad hoc working groups, such as chemical-specific groups, to work during meetings and intersessionally. Such groups shall be chaired by at least one member of the Committee and may consist of members of the Committee as well as invited experts and observers. The establishment of formal subcommittees should be avoided.

Language of meetings

30. For the effective conduct of meetings, simultaneous interpretation will be provided into the six official languages of the United Nations.
31. For practical reasons, only the major resource documents for a meeting² will be translated into the six official languages of the United Nations.
32. Unless agreed otherwise by the Conference of the Parties, meetings of the Committee shall take place only at the seat of the Secretariat to the Convention.

Recommendations and reports to the Conference of the Parties

33. The Committee shall make recommendations to list chemicals in Annexes A, B or C of the Convention to the Conference of the Parties. Any such recommendation from the Committee shall provide reasons as well as any dissenting views and relevant supporting documents.
34. The Committee may make recommendations to the Conference of the Parties on these terms of reference and the organization and operation of the Committee.
35. Decisions, recommendations and meeting reports of the Committee shall be available as meeting documents of the Conference of the Parties in the six official languages of the United Nations. Reports by the Committee shall be publicly available and easily accessible.

Budget

36. Financial support, i.e., travel and daily subsistence allowance, shall be made available to Committee members and invited experts from developing countries and countries with economies in transition for participation in meetings of the Committee according to United Nations practice. When considering the invitation of experts, the Committee shall take into account the availability of resources.

² The term “major resource documents” shall mean the summary of the proposal for adding a chemical to the POPs list, the risk profile and any report and recommendation from the meeting.

SC-1/8: Rules of procedure for preventing and dealing with conflicts of interest relating to activities of the Persistent Organic Pollutants Review Committee

The Conference of the Parties,

1. Decides that it is essential to safeguard confidence in the integrity of the process of work of the Persistent Organic Pollutants Review Committee while encouraging experienced and competent persons to accept membership in the Committee by:
 - (a) Establishing an appropriate code of conduct;
 - (b) Establishing clear rules with respect to conflicts of interest during and after service as a member;
 - (c) Minimizing the possibility of conflicts arising between the private interests and public duties of members;
 - (d) Establishing appropriate procedures for preventing and dealing with conflicts of interest relating to the activities of the Persistent Organic Pollutants Review Committee;
2. Decides, without prejudice to the obligations incumbent upon the individual members of the Persistent Organic Pollutants Review Committee as set out in paragraphs 3 and 4 below, that Governments have primary responsibility in ensuring compliance with the present decision and that, to this effect, when considering designating experts in relevant fields for appointment by the Conference of the Parties, Governments shall exercise due diligence in order to prevent potential or actual situations of conflict of interest;
3. Decides that, in carrying out their duties, the members of the Persistent Organic Pollutants Review Committee shall:
 - (a) Perform their official duties and arrange their private affairs in such a manner that public confidence and trust in the integrity, objectivity and impartiality of the Persistent Organic Pollutants Review Committee are preserved and enhanced;
 - (b) Act in a manner that will bear the closest public scrutiny, an obligation that is not fully discharged by simply acting within the law of any country;
 - (c) Act in good faith for the best interest of the process;
 - (d) Exercise the care, diligence and skill that a reasonably prudent person would exercise in comparable circumstances;
 - (e) Not give any preferential treatment to anyone or any interest in any official manner related to the Persistent Organic Pollutants Review Committee;
 - (f) Not solicit or accept gifts, hospitality, or other benefits from persons, groups or organizations having or likely to have dealings with the Persistent Organic Pollutants Review Committee;
 - (g) Not accept transfers of economic benefit, other than customary hospitality or other benefits of nominal value, unless the transfer is pursuant to an enforceable contract or property right of a member;
 - (h) Not depart from their role as members to assist other entities or persons in their dealings with the Persistent Organic Pollutants Review Committee where such actions would result in preferential treatment to any person or group;
 - (i) Not knowingly take advantage of, or benefit from, information that is obtained in the course of their duties and responsibilities as members of the Persistent Organic Pollutants Review Committee and that is not generally available to the public;
 - (j) Not act, after expiry of their terms of office as members of the Persistent Organic Pollutants Review Committee, in such a manner as to take improper advantage of their previous office;
4. Decides that, to avoid the possibility or appearance that members of the Persistent Organic Pollutants Review Committee might receive preferential treatment, members shall not seek preferential treatment for themselves or third parties or act as paid intermediaries for third parties in dealings with the Persistent Organic Pollutants Review Committee;
5. Decides that members of the Persistent Organic Pollutants Review Committee shall disclose activities, including business or financial interests, which might call into question their ability to discharge their

duties and responsibilities objectively. The members of the Persistent Organic Pollutants Review Committee must annually disclose their activities. In addition, they must disclose any financing from a company engaged in commercial or industrial activities for their participation in the Committee. To this effect, the Conference of the Parties adopts the declaration of interests as set out in the annex to the present decision for consideration in connection with the designation, appointment and review of the status of experts to the Persistent Organic Pollutants Review Committee;

6. Decides that, in assessing potential or actual situations of conflict of interest, the criteria set out in paragraph 1 of the declaration of interests should be applied by all concerned in a consistent manner, on a case by case basis, with regard to all relevant circumstances involved in each particular case;
7. Decides to adopt the following procedure for the implementation of the declaration of interests:

Review process prior to appointment

- (a) When considering designating an expert to the Persistent Organic Pollutants Review Committee, the Government concerned shall inform the expert that he or she shall be requested by the Secretariat to fill in a declaration of interests;
- (b) Prior to the designation of an expert by a Government, or concurrently with the process for that designation, the Secretariat shall request the expert, through the Government, to fill in a declaration of interests. The declaration of interests shall be submitted by the designating Government to the Secretariat;
- (c) Should the Secretariat require further clarification as to the suitability of an expert, the Secretariat shall discuss the matter with the designating Government and the prospective expert, through the Government, as appropriate. Depending on the outcome of these discussions, the Secretariat may refer the matter to the Bureau of the Conference of the Parties. The Bureau shall review the matter and make a recommendation to the concerned Government;
- (d) Should a Government be in disagreement with a recommendation by the Bureau, that Government may request that the matter be considered by the Conference of the Parties;

Review process after appointment

- (e) All appointed experts shall be required to inform the Secretariat, through the Government that designated them, of any change in the information provided in a declaration of interests previously submitted;
- (f) In the course of the mandate of an expert, should the Secretariat be of the opinion that a situation of conflict of interest could arise or has arisen, the Secretariat shall discuss the matter with that expert and, where deemed appropriate, with the designating Government. The Bureau of the Conference of the Parties may recommend to the Conference of the Parties the temporary suspension of the participation of the expert in some or in all of the activities of the Persistent Organic Pollutants Review Committee. A decision on the matter shall be taken by the Conference of the Parties at its next session;

General provisions

- (g) Subject to the provisions of the present decision, the Secretariat shall take all necessary measures to safeguard the restricted character of the information provided in the declaration of interests. To the extent necessary for the implementation of the present decision, this information may be provided to the Conference of the Parties and its Bureau and subsidiary bodies, as deemed appropriate;
 - (h) Where the objectivity of a particular meeting has been called into question, the Conference of the Parties shall define the conditions for the disclosure of all relevant information in addition to that which is provided for in paragraph 7 (g) above;
 - (i) The Conference of the Parties shall consider any issue that is not covered by the present decision;
 - (j) The Conference of the Parties shall keep under review the implementation of the present decision and, not later than five years after its adoption, carry out a comprehensive assessment of its implementation with a view to making such amendments thereto as may be required;
8. Decides that any designation of experts to serve in the Persistent Organic Pollutants Review Committee shall be subject to the relevant provisions of paragraph 7 of the present decision.

Annex to decision SC-1/8

Declaration of interests

Measures need to be taken to ensure that the best possible assessment of scientific evidence is achieved in an independent atmosphere free of either direct or indirect pressures. Thus, to ensure the technical integrity and impartiality of the work of the Persistent Organic Pollutants Review Committee, it is necessary to avoid situations in which financial or other interests might affect the outcome of that work.

Each expert is therefore asked to declare any interests that could constitute a real, potential or apparent conflict of interest with respect to his or her involvement in the meeting or work, between, on the one hand, commercial entities and the participant personally, and, on the other hand, commercial entities and the administrative unit with which the participant has an employment relationship. In this context “commercial entity” refers to any company, association (e.g., trade association), organization or any other entity whatsoever, with commercial interests.

1. What is a conflict of interest?

“Conflict of interest” means that the expert or his or her partner, or the administrative unit with which the expert has an employment relationship, has a financial or other interest that could unduly influence the expert’s position with respect to the subject matter being considered. An apparent conflict of interest exists when an interest would not necessarily influence the expert but could result in the expert’s objectivity being questioned by others. A potential conflict of interest exists with respect to any interest which any reasonable person could be uncertain as to whether or not it should be reported.

Different types of financial or other interests, whether personal or with the administrative unit with which the expert has an employment relationship, can be envisaged and the following list, which is not exhaustive, is provided for your guidance. For example, the following types of situations should be declared:

- (a) A current proprietary interest in a substance, technology or process (e.g., ownership of a patent), to be considered in – or otherwise related to the subject matter of – the meeting or work;
- (b) A current financial interest, e.g., shares or bonds, in a commercial entity with an interest in the subject matter of the meeting or work (except shareholdings through general mutual funds or similar arrangements where the expert has no control over the selection of shares);
- (c) An employment, consultancy, directorship, or other position held during the past four years, whether or not paid, in any commercial entity which has an interest in the subject matter of the meeting or work, or an ongoing negotiation concerning prospective employment or other association with such commercial entity;
- (d) Performance of any paid work or research during the past four years commissioned by a commercial entity with interests in the subject matter of the meetings or work;
- (e) Payment or other support covering a period within the past four years, or an expectation of support for the future, from a commercial entity with an interest in the subject matter of the meetings or work, even if it does not convey any benefit to the expert personally but which benefits his or her position or administrative unit, e.g., a grant or fellowship or other payment, e.g., for such purposes as the financing of a post or consultancy.

With respect to the above, a commercial interest in a competing substance, technology or process, or an interest in or association with, work for or support by a commercial entity having a direct competitive interest must similarly be disclosed.

2. How to complete this declaration

Please complete this declaration and submit it to your Government for transmission to the Secretariat. Any financial or other interests that could constitute a real, potential or apparent conflict of interest should be declared: first, with respect to yourself or partner; and, second, with respect to any administrative unit with which you have an employment relationship. Only the name of the commercial entity and the nature of the interest is required to be disclosed and no amounts need to be specified (although they may be, if you consider this information to be relevant to assessing the interest). With respect to points (a) and (b) in section 1 above, the interest should only be declared if it is current. With respect to points (c), (d) and (e), any interest during the past four years should be declared. If the interest is no longer current, please state the year when it ceased. With respect to point (e), the interest ceases when a financed post or fellowship is no longer occupied, or when support for an activity ceases.

3. Assessment and outcome

The information submitted by you will be used to assess whether the declared interests constitute an

appreciable real, potential or apparent conflict of interest in accordance with the provisions of decision SC-1/8 of the Conference of the Parties of the Stockholm Convention.

Information disclosed on this declaration shall reside within the Secretariat and shall be made available to the Conference of the Parties, its Bureau and subsidiary bodies, as deemed appropriate.

4. Declaration

Have you or your partner any financial or other interest in the subject matter of the meeting or work in which you will be involved, which may be considered as constituting a real, potential or apparent conflict of interest?

Yes: No: If yes, please give details in the box below.

Do you have, or have you had during the past four years, an employment or other professional relationship with any entity directly involved in the production, manufacture, distribution or sale of chemicals or pesticides or directly representing the interests of any such entity?

Yes: No: If yes, please give details in the box below.

1. Type of interest, e.g. patent, shares, employment, association, payment (including details on any compound, work, etc.)	2. Name of commercial entity	3. Belongs to you, partner or unit?	4. Current interest? (or year ceased)

Is there anything else that could affect your objectivity or independence in the meeting or work, or the perception by others of your objectivity and independence?

I hereby declare that the disclosed information is correct and that no other situation of real, potential or apparent conflict of interest is known to me. I undertake to inform you of any change in these circumstances, including if an issue arises during the meeting or work itself.

Signature

Date

Name

Government

I hereby declare that I shall regulate my conduct in accordance with the provisions of paragraphs 3 and 4 of decision SC-1/8 of the Conference of the Parties of the Stockholm Convention.

Signature

Name

Appendix 3: Forms for submission of information specified in the Convention upon request by the Committee

(1) Form for submission of information specified in Annex E of the Stockholm Convention pursuant to Article 8 of the Convention

Introductory information	
Name of the submitting Party/observer	
Contact details (name, telephone, e-mail) of the submitting Party/observer	
Chemical name as used by the POPS Review Committee (POPRC)	
Date of submission	

(a) Sources, including as appropriate (provide summary information and relevant references)	
(i) Production data: Quantity Location	
Other	
(ii) Uses	
(iii) Releases: Discharges Losses Emissions Other	

(b) Hazard assessment for endpoints of concern, including consideration of toxicological interactions involving multiple chemicals (provide summary information and relevant references)	

I Environmental fate (provide summary information and relevant references)	
Chemical/physical properties	
Persistence	
How are chemical/physical properties and persistence linked to environmental transport, transfer within and between environmental compartments, degradation and transformation to other chemicals?	
Bio-concentration or bio-	

accumulation factor, based on measured values (unless monitoring data are judged to meet this need)	
---	--

(d) Monitoring data (provide summary information and relevant references)

(e) Exposure in local areas (provide summary information and relevant references)	
general	
- as a result of long-range environmental transport information regarding bio-availability	

(f) National and international risk evaluations, assessments or profiles and labelling information and hazard classifications, as available (provide summary information and relevant references)

(g) Status of the chemical under international conventions

(2) Form for submission of information specified in Annex F of the Stockholm Convention pursuant to Article 8 of the Convention

Chemical name (as used by the POPs Review Committee (POPRC))	
---	--

Explanatory note:

1. This chemical is undergoing a risk management evaluation. It has already satisfied the screening criteria set out in paragraph 4 (a) of Article 8 of the Convention. A risk profile has also been completed for this chemical in accordance with paragraph 6 of Article 8 and with Annex E to the Convention.

Introductory information	
Name of the submitting Party/observer	
Contact details (name, telephone, e-mail) of the submitting Party/observer	
Date of submission	

Additional Annex E information	
(i) Production data, including quantity and location	
(ii) Uses	
(iii) Releases, such as discharges, losses and emissions	

Explanatory note:

2. This information was requested for preparation of the risk profile in accordance with Annex E of the Convention. The POPRC would like to collect more information on these items. If you have additional or updated information, kindly provide it.

A. Efficacy and efficiency of possible control measures in meeting risk reduction goals (provide summary information and relevant references):	
(i) Describe possible control measures	
(ii) Technical feasibility	
(iii) Costs, including environmental and health costs	

Explanatory notes:

3. If relevant, provide information on uses for which there may be no suitable alternative or for which the analysis of socio-economic factors justify the inclusion of an exemption when considering listing decisions under the Convention. Detail the negative impacts on society that could result if no exemption were permitted.
4. "Risk reduction goals" could refer to targets or goals to reduce or eliminate releases from intentional production and use, unintentional production, stockpiles, wastes, and to reduce or avoid risks associated with long-range environment transport.
5. Provide the costs and benefits of implementing the control measure, including environmental and health costs and benefits.
6. Where relevant and possible "costs" should be expressed in US dollars per year.

B. Alternatives (products and processes) (provide summary information and relevant references):	
(i) Describe alternatives	
(ii) Technical feasibility	
(iii) Costs, including environmental and health costs	
(iv) Efficacy	

(v) Risk	
(vi) Availability	
(vii) Accessibility	

Explanatory notes:

7. Provide a brief description of the alternative product or process and, if appropriate, the sector(s), use(s) or user(s) for which it would be relevant.
8. If several alternatives could be envisaged for the chemical under consideration, including non-chemical alternatives, provide information under this section for each alternative.
9. Specify for each proposed alternative whether it has actually been implemented (and give details), whether it has only reached the trial stage (again, with details) or whether it is just a proposal.
10. The evaluation of the efficacy should include any information on the performance, benefits, costs, and limitations of potential alternatives.
11. Specify if the information provided is connected to the specific needs and circumstances of developing countries.
12. The evaluation of the risk of the alternative should include any information on whether the proposed alternative has been thoroughly tested or evaluated in order to avoid inadvertently increasing risks to human health and the environment. The evaluation should include any information on potential risks associated with untested alternatives and any increased risk over the life-cycle of the alternative, including manufacture, distribution, use, maintenance and disposal.
13. If the alternative has not been tried or tested, information on projected impacts may also be useful.
14. Information or comments on improving the availability and accessibility of alternatives may also be useful.

C. Positive and/or negative impacts on society of implementing possible control measures (provide summary information and relevant references):	
(i) Health, including public, environmental and occupational health	
(ii) Agriculture, including aquaculture and forestry	
(iii) Biota (biodiversity)	
(iv) Economic aspects	
(v) Movement towards sustainable development	
(vi) Social costs	

Explanatory notes:

2. Socio-economic considerations could include:
 - Any information on the impact (if any), costs and benefits to the local, national and regional economy, including the manufacturing sector and industrial and other users (e.g., capital costs and benefits associated with the transition to the alternatives); and impacts on agriculture and forestry;
 - Any information on the impact (if any) on the wider society, associated with the transition to alternatives, including the negative and positive impacts on public, environmental, and occupational health. Consideration should also be given to the positive and negative impacts on the natural environment and biodiversity.
 - Information should be provided on how control measures fit within national sustainable development strategies and plans.

D. Waste and disposal implications (in particular, obsolete stocks of pesticides and clean-up of contaminated sites) (provide summary information and relevant references):	
(i) Technical feasibility	
(ii) Costs	

Explanatory note:

16. Specify if the information provided is connected to the specific needs and circumstances of developing countries.

E. Access to information and public education (provide summary information and relevant references):

Explanatory note:

17. Please provide details here of access to information and public education with respect to both control measures and alternatives.

F. Status of control and monitoring capacity (provide summary information and relevant references):

Explanatory note:

18. With regard to control capacity, the information required is on legislative and institutional frameworks for the chemical under consideration and their enforcement. With regard to monitoring capacity, the information required is on the technical and institutional infrastructure for the environmental monitoring and monitoring of the chemical under consideration, not monitoring capacity for alternatives.

G. Any national or regional control actions already taken, including information on alternatives, and other relevant risk management information:

Explanatory notes:

19. Actions or measures taken could include prohibitions, phase-outs, restrictions, cleanup of contaminated sites, waste disposal, economic incentives, and other non-legally binding initiatives.
20. Information could include details on whether these control actions have been cost-effective in providing the desired benefits and have had a measurable impact on reducing levels in the environment and contributed to risk reduction.

H. Other relevant information for the risk management evaluation:

Explanatory notes:

21. The above list of items is only indicative. Any other relevant information for the risk management evaluation should also be provided.

I. Other information requested by the POPRC:
[Note to the Secretariat]

Appendix 4:

Set of forms to support holders of the information to provide the data required for Annex E

1. Identification of National sources of information.

Information requested	Sources of information							
	1		2		3		4	
	Source	Contact details ¹	Source	Contact details ¹	Source	Contact details ¹	Source	Contact details ¹
Uses								
Production								
Import								
Releases								
Hazard assessment (e.g. for receptors)								
Environmental fate								
Monitoring data								
Exposure data								
National risk assessments								
International risk assessments								
Regulation of the chemical under other international conventions								

¹ Include name, telephone and e-mail.

2. Use

Product name ¹	Amount ²	Units ³	Type of use ⁴	Year ⁵	References ⁶	Comments ⁷

¹ Provide the commercial name of the product.

² Indicate the amount used per year of the product.

³ Report the units using preferably the metric system (i.e. kilograms, liters). For instance, kg/year, l/year, etc.

⁴ For instance, industrial, livestock, agricultural uses.

⁵ Provide the year on which the product was used.

⁶ Provide details of the information source such as the name and year of the database, company's name, citation, among other.

⁷ Include some additional information to extend or clarify an issue derived from the data presented.

3. Production

Product's name ¹	Name of the manufacture or production process ²	Amount ³	Units ⁴	Year ⁵	References ⁶	Comments ⁷

¹ Provide the commercial name of the product.

² Provide the common name of the manufacture or production process used, or a brief description of the process.

³ Provide the amount produced per year of the product.

⁴ Report the units using preferably the metric system (i.e. kilograms, liters). For instance, kg/year, l/year, etc.

⁵ Provide the year on which the product was produced.

⁶ Provide details of the information source such as the name and year of the database, company's name, citation, among other.

⁷ Include some additional information to extend or clarify an issue derived from the data presented.

4. Import

Product name ¹	Amount ²	Units ³	Year ⁴	References ⁵	Comments ⁶

¹ Provide the commercial name of the imported product.

² Provide the amount imported per year of the product.

³ Report the units using preferably the metric system (i.e. kilograms, liters). For instance, kg/year, l/year, etc.

⁴ Provide the year on which the product was imported.

⁵ Provide details of the information source such as the name and year of the database, company's name, citation, among other.

⁶ Include some additional information to extend or clarify an issue derived from the data presented.

5. Releases

Type of release	Source ¹	Volume ²	Units ³	Year ⁴	References ⁵	Comments ⁶
Discharge						
Emissions						
Waste generation ⁷						

¹ Indicate source's name of the emission, discharge or generation of waste of the chemical under review.

² Indicate the volume or amount of the releases of the chemical per year.

³ Report the units using preferably the metric system (i.e. kilograms, liters). For instance, kg/year, l/year, etc.

⁴ Provide the year on which the releases were reported.

⁵ Provide details of the information source such as the name and year of the database, company's name, citation, among other.

⁶ Include some additional information to extend or clarify an issue derived from the data presented.

⁷ It includes chemical's stockpiles.

6. Analysis and evaluation of danger for receptors

Study or report title ¹	Main findings ²	References ³	Comments ⁴

¹ Provide the name or title of the study or report on analysis and evaluations of danger for receptors carried out for the chemical.

² Describe briefly the main findings of the study or report.

³ Provide the citation of the study or assessment.

⁴ Include some additional information to extend or clarify an issue derived from the data presented.

7. Environmental destination

Indicators	Value ¹	Units ²	Environmental compartment or target organism ³	References ⁴	Comments ⁵
Persistence					
Bioaccumulation					
Long range environmental transport					
Other					

¹ Provide the value of the indicator.

² Report the appropriate units for the indicator.

³ Indicate the environmental compartment (air, water, sediment, soil) or target organism (biota, biological fluids) evaluated.

⁴ Provide the citation of the study or assessment.

⁵ Include some additional information to extend or clarify an issue derived from the data presented.

8. Monitoring data

Environmental compartment	Data ¹	Units ²	References ³	Comments ⁴
Water				
Air				
Sediment				
Soil				
Biota				
Biological fluids				
Other				

¹ Provide summary data obtained of the monitoring.

² Indicate the appropriate units

³ Provide the citation of the study or assessment.

⁴ Include some additional information to extend or clarify an issue derived from the data presented.

9. Exposure data

Type of organism exposed ¹	Via of exposure ²	Exposure data ³	Units ⁴	References ⁵	Comments ⁶

¹ Indicate type of exposed organisms such as human beings, biota.

² This can be by inhalation, ingestion or dermal exposure.

³ Provide summary exposure data obtained of the study or report.

⁴ Indicate the appropriate units.

⁵ Provide the citation of the study or assessment.

⁶ Include some additional information to extend or clarify an issue derived from the data presented.

10. National and international risk evaluations

Study or report title ¹	Main findings ²	References ³	Comments ⁴

¹ Provide the title of the study or report on national and international evaluations carried out for the chemical.

² Describe briefly the main findings of the study or report.

³ Provide the citation of the study or assessment.

⁴ Include some additional information to extend or clarify an issue derived from the data presented.

11. Regulations on substances by other international conventions

Convention name ¹	Entry in force ²	Description of the provisions applying to the substance ³

¹ Provide the name of the convention and if apply the name of the protocol.

² Indicate the date in which the convention came in force.

⁴ Provide a brief description of the regulations applying to the chemical.

Appendix 5:
General format for the questionnaire proposed to compile the information for Annex F

SECTION A. GENERAL INFORMATION

A.1 Contact details of the sector/group/office (include name, telephone and e-mail):

A.2 Select the use given to the chemical:

-Fill a questionnaire for every use-

- | | | | |
|---|--|--|--|
| a) Agriculture <input type="checkbox"/> | b) Veterinary <input type="checkbox"/> | c) Livestock <input type="checkbox"/> | d) Pharmaceutical <input type="checkbox"/> |
| e) Forestry <input type="checkbox"/> | f) Urban <input type="checkbox"/> | g) Industrial <input type="checkbox"/> | h) Domestic <input type="checkbox"/> |
| i) Other <input type="checkbox"/> | Indicate the other use: | | |

A.3 List the commercial name of the products used containing the chemical:

SECTION B. POSSIBLE CONTROL MEASURES AND THEIR IMPACTS

Taking in account the use given to the chemical, indicate the technical and economic feasibility of the following possible control measures.

B.1 Prohibition of use

B.1.1 Considering the knowledge, expertise, data and information available for the chemical, indicate the technical feasibility to prohibit its use:

- a) High b) Medium c) Low d) Null

Provide data and/or relevant references to support the answer:

B.1.2 If the technical feasibility is low or null, mark out the possible causes from the following list:

- a) There are no alternatives to replace the use of the chemical
- b) Available alternatives are not efficient or effective
- c) Possible negative effects are similar or higher to those identified for the chemical
- d) There will be no control for human diseases of high risk
- e) There will be no control for plant or animal diseases of economic and environmental importance for the country.
- f)Other

Provide data and/or relevant references to support the answer:

B.1.3 Considering the knowledge, expertise, data and information available for the chemical, indicate the economic feasibility to prohibit its use:

- a) High b) Medium c) Low d) Null

Provide data and/or relevant references to support the answer (including data on the economic value or worth of the sector (i.e. number of employees, financial turnover):

B.1.4 If the economic feasibility is low or null, mark out the possible causes from the following list:

- a) Chemical use represents a high economic value and its prohibition would cause a negative impact on the economy of the country
- b) Increase in the number of cases of diseases caused by the chemical prohibition would cause a negative economic impact
- c) Prohibition of use and the lack of alternatives would cause a decrease in the agriculture and livestock production
- d)Other

Provide data and/or relevant references to support the answer:

B.1.5 Exemptions

B.1.5.1 If the chemical is listed in the Convention, would it be necessary to request an exemption for its use?

a) Yes b) No

Provide data and/or relevant references to support the answer:

B.1.5.2 What socioeconomic implications would be expected if no exemption were permitted? (provide data and relevant references to support the answer):

B.1. 6 Costs, benefits and detriments identified by the implementation of the possible control measures.

B.1.6.1 Complete tables B.1.1 and B.1.2 with estimates on costs, benefits or detriments by the implementation of possible control measures.

Table B.1.1 Estimated costs by use prohibition of the chemical

Aspect	Description of costs ¹	Costs ²	References ³
Environmental			
Health			
Economic			
Other			

¹ Describe how the costs were estimated and indicate the variables, activities or aspects that were covered.

² If available, specify the cost in US dollars/year.

³ Provide data and/or relevant references to support data.

Table B.1.2 Benefits and detriments identified by use prohibition of the chemical

Aspect	Benefits ¹		Detriments ²	
	Description of benefits	References	Description of detriments	References
Environmental ³				
Health ⁴				
Económico ⁵				
Social ⁶				
Sustainable development ⁷				
Other ³				

¹ Describe briefly the benefits identified by use prohibition of the chemical and provide the relevant references.

² Describe briefly the detriments identified by use prohibition of the chemical and provide the relevant references.

³ Include the effects to biological diversity.

⁴ Include public, environmental and occupational health.

⁵ Include any information on the impact (if any), costs and benefits to the local, national and regional economy, containing the manufacturing sector and industrial and other users (e.g. capital costs and benefits associated with the transition to the alternatives); and impacts on agriculture and forestry.

⁶ Include negative and positive impacts on society.

⁷ Information should be provided on how control measures fit within national sustainable development strategies and plans and their effects.

B.2 Prohibition of production

B.2.1 Considering the knowledge, expertise, data and information available for the chemical, indicate the technical feasibility to prohibit its production:

- a) High b) Medium c) Low d) Null

Provide data and/or relevant references to support the answer:

B.2.2 If the technical feasibility is low or null, mark out the possible causes from the following list:

- a) National and/or international demand of the product is high and there are no alternatives to replace its use
- b) The process and/or technology to produce the available alternatives would imply major changes to the company and modify the production of other products.
- c) Other

Provide data and/or relevant references to support the answer:

B.2.3 Considering the knowledge, expertise, data and information available for the chemical, indicate the economic feasibility to prohibit its production:

- a) High b) Medium c) Low d) Null

Provide data and/or relevant references to support the answer:

B.2.4 If the economic feasibility is low or null, mark out the possible causes from the following list:

- a) There are no available alternatives to cover the national and/or international demand of the product
- b) Costs from the production of alternatives are higher to those caused by the chemical's production, making the production of alternatives unviable
- c) The value of the chemical's production is considerably high
- d) Other

Provide data and/or relevant references to support the answer:

--

B.2.5 Complete tables B.2.1 and B.2.2 with estimates on costs, benefits or detriments by the implementation of possible control measures.

Table B.2.1 Estimated costs by production prohibition of the chemical

Aspect	Description of costs ¹	Costs ²	References ³
Environmental			
Health			
Economic			
Other			

¹ Describe how the costs were estimated and indicate the variables, activities or aspects that were covered.

² If available, specify the cost in US dollars/year.

³ Provide data and/or relevant references to support data.

Table B.2.2 Benefits and detriments identified by production prohibition of the chemical

Aspect	Benefits ¹		Detriments ²	
	Description of benefits	References	Description of benefits	References
Environmental ³				
Health ⁴				
Economic ⁵				
Social ⁶				
Sustainable development ⁷				
Other ⁸				

¹ Describe briefly the benefits identified by production prohibition of the chemical and provide the relevant references.

² Describe briefly the detriments identified by production prohibition of the chemical and provide the relevant references.

³ Include the effects to biological diversity.

⁴ Include public, environmental and occupational health.

⁵ Include any information on the impact (if any), costs and benefits to the local, national and regional economy, containing the manufacturing sector and industrial and other users (e.g. capital costs and benefits associated with the transition to the alternatives); and impacts on agriculture and forestry.

⁶ Include negative and positive impacts on society.

⁷ Information should be provided on how control measures fit within national sustainable development strategies and plans and their effects.

B.3 Prohibition of import

B.3.1 Considering the knowledge, expertise, data and information available for the chemical, indicate the technical feasibility to prohibit its import:

a) High b) Medium c) Low d) Null

Provide data and/or relevant references to support the answer:

--

B.3.2 If the technical feasibility is low or null, mark out the possible causes from the following list:

a) The chemical is not produced in the country, hence there is a strong dependence of its import, since there are no alternatives to replace its use

b) Other

Provide data and/or relevant references to support the answer:

B.3.3 Considering the knowledge, expertise, data and information available for the chemical, indicate the economic feasibility to prohibit its import:

a) High b) Medium c) Low d) Null

Provide data and/or relevant references to support the answer:

B.3.4 If the economic feasibility is low or null, mark out the possible causes from the following list:

a) Import of the chemical implies lower costs than import of alternatives

b) Other

Provide data and/or relevant references to support the answer:

B.3.5 Complete tables B.3.1 and B.3.2 with estimates on costs, benefits or detriments by the implementation of possible control measures.

Table B.3.1 Estimated costs by import prohibition of the chemical

Aspect	Description of costs ¹	Costs ²	References ³
Environmental			
Health			
Economic			
Other			

¹ Describe how the costs were estimated and indicate the variables, activities or aspects that were covered.

² If available, specify the cost in US dollars/year.

³ Provide data and/or relevant references to support data.

Table B.3.2 Benefits and detriments identified by import prohibition of the chemical

Aspect	Benefits ¹		Detriments ²	
	Description of benefits	References	Description of benefits	References
Environmental ³				
Health ⁴				
Económico ⁵				
Social ⁶				
Sustainable development ⁷				
Other ⁸				

¹ Describe briefly the benefits identified by import prohibition of the chemical and provide the relevant references.

² Describe briefly the detriments identified by import prohibition of the chemical and provide the relevant references.

³ Include the effects to biological diversity.

⁴ Include public, environmental and occupational health.

⁵ Include any information on the impact (if any), costs and benefits to the local, national and regional economy, containing the manufacturing sector and industrial and other users (e.g. capital costs and benefits associated with the transition to the alternatives); and impacts on agriculture and forestry.

⁶ Include negative and positive impacts on society.

⁷ Information should be provided on how control measures fit within national sustainable development strategies and plans and their effects.

B.4 Use restriction

B.4.1 Considering the knowledge, expertise, data and information available for the chemical, indicate the technical feasibility to restrict its use:

- a) High b) Medium c) Low d) Null

Provide data and/or relevant references to support the answer:

B.4.2 If the technical feasibility is low or null, mark out the possible causes from the following list:

- a) There are no alternatives to replace its use
- b) Other

Provide data and/or relevant references to support the answer:

B.4.3 Considering the knowledge, expertise, data and information available for the chemical, indicate the economic feasibility to restrict its use:

- a) High b) Medium c) Low d) Null

Provide data and/or relevant references to support the answer:

B.4.4 If the economic feasibility is low or null, mark out the possible causes from the following list:

a) High economic losses are expected due to the lack of alternatives to replace the use of the chemical

b) Other

Provide data and/or relevant references to support the answer:

B.4.5 Complete tables B.4.1 and B.4.2 with estimates on costs, benefits or detriments by the implementation of possible control measures.

Table B.4.1 Estimated costs by use restriction of the chemical

Aspect	Description of costs ¹	Costs ²	References ³
Environmental			
Health			
Economic			
Other			

- ¹ Describe how the costs were estimated and indicate the variables, activities or aspects that were covered.
² If available, specify the cost in US dollars/year.
³ Provide data and/or relevant references to support data.

Table B.4.2 Benefits and detriments identified by use restriction of the chemical

Aspecto	Benefits ¹		Detriments ²	
	Description of benefits	References	Description of benefits	References
Environmental ³				
Health ⁴				
Economic ⁵				
Social ⁶				
Sustainable development ⁷				
Other ⁸				

- ¹ Describe briefly the benefits identified by use restriction of the chemical and provide the relevant references.
² Describe briefly the detriments identified by use restriction of the chemical and provide the relevant references.
³ Include the effects to biological diversity.
⁴ Include public, environmental and occupational health.
⁵ Include any information on the impact (if any), costs and benefits to the local, national and regional economy, containing the manufacturing sector and industrial and other users (e.g. capital costs and benefits associated with the transition to the alternatives); and impacts on agriculture and forestry.
⁶ Include negative and positive impacts on society.
⁷ Information should be provided on how control measures fit within national sustainable development strategies and plans and their effects.

B.5 Management and elimination of chemical's waste

B.5.1 Considering the knowledge, expertise, data and information available for the chemical, indicate the technical feasibility to manage and eliminate chemical's waste:

- a) High b) Medium c) Low d) Null

Provide data and/or relevant references to support the answer:

B.5.2 If the technical feasibility is low or null, mark out the possible causes from the following list:

- a) There is no available technology to eliminate the chemical's waste in the country
- b) Other

Provide data and/or relevant references to support the answer:

B.5.3 Considering the knowledge, expertise, data and information available for the chemical, indicate the economic feasibility to manage and eliminate chemical's waste:

- a) High b) Medium c) Low d) Null

Provide data and/or relevant references to support the answer:

B.5.4 If the economic feasibility is low or null, mark out the possible causes from the following list:

- a) Costs to manage and eliminate chemical's waste are considerable high
- b) Other

Provide data and/or relevant references to support the answer:

B.5.6 Complete tables B.5.1 and B.5.2 with estimates on costs, benefits or detriments by the implementation of possible control measures.

Table B.5.1 Estimated costs by managing or eliminating chemical's waste

Aspect	Description of costs ¹	Costs ²	References ³
Environmental			
Health			
Economic			
Other			

¹ Describe how the costs were estimated and indicate the variables, activities or aspects that were covered.

² If available, specify the cost in US dollars/year.

³ Provide data and/or relevant references to support data.

Table B.5.2 Benefits and detriments identified by managing and eliminating chemical's waste

Aspect	Benefits ¹		Detriments ²	
	Description of benefits	References	Description of benefits	References
Environmental ³				
Health ⁴				
Economic ⁵				
Social ⁶				
Sustainable development ⁷				
Other ⁵				

¹ Describe briefly the benefits identified by managing and eliminating chemical's waste and provide the relevant references.

² Describe briefly the detriments identified by managing and eliminating chemical's waste and provide the relevant references.

³ Include the effects to biological diversity.

⁴ Include public, environmental and occupational health.

⁵ Include any information on the impact (if any), costs and benefits to the local, national and regional economy, containing the manufacturing sector and industrial and other users (e.g. capital costs and benefits associated with the transition to the alternatives); and impacts on agriculture and forestry.

⁶ Include negative and positive impacts on society.

⁷ Information should be provided on how control measures fit within national sustainable development strategies and plans and their effects.

B.6 Cleaning up of contaminated sites

B.6.1 Considering the knowledge, expertise, data and information available for the chemical, indicate the technical feasibility to clean up contaminated sites with the chemical:

a) High b) Medium c) Low d) Null

Provide data and/or relevant references to support the answer:

B.6.2 If the technical feasibility is low or null, mark out the possible causes from the following list:

a) There is no available technology to eliminate the chemical's waste in the country

b) Other

Provide data and/or relevant references to support the answer:

B.6.3 Considering the knowledge, expertise, data and information available for the chemical, indicate the economic feasibility to clean up contaminated sites with the chemical:

- a) High b) Medium c) Low d) Null

Provide data and/or relevant references to support the answer:

B.6.4 If the economic feasibility is low or null, mark out the possible causes from the following list:

- a) Costs to manage and eliminate chemical's waste are considerable high
- b) Other

Provide data and/or relevant references to support the answer:

B.6.5 Complete tables B.6.1 and B.6.2 with estimates on costs, benefits or detriments by the implementation of possible control measures.

Table B.6.1 Estimated costs by cleaning up contaminated sites with the chemical

Aspect	Description of costs ¹	Costs ²	References ³
Environmental			
Health			
Economic			
Other			

- ¹ Describe how the costs were estimated and indicate the variables, activities or aspects that were covered.
² If available, specify the cost in US dollars/year.
³ Provide data and/or relevant references to support data.

Table B.6.2 Benefits and detriments identified by cleaning up contaminated sites with the chemical

Aspect	Benefits ¹		Detriments ²	
	Description of benefits	References	Description of benefits	References
Environmental ³				
Health ⁴				
Economic ⁵				
Social ⁶				
Sustainable development ⁷				
Other ³				

- ¹ Describe briefly the benefits identified by cleaning up contaminated sites with the chemical and provide the relevant references.
² Describe briefly the detriments identified by cleaning up contaminated sites with the chemical and provide the relevant references.
³ Include the effects to biological diversity.
⁴ Include public, environmental and occupational health.
⁵ Include any information on the impact (if any), costs and benefits to the local, national and regional economy, containing the manufacturing sector and industrial and other users (e.g. capital costs and benefits associated with the transition to the alternatives); and impacts on agriculture and forestry.
⁶ Include negative and positive impacts on society.
⁷ Information should be provided on how control measures fit within national sustainable development strategies and plans and their effects.

SECTION C. ALTERNATIVES (PRODUCTS AND PROCESSES)

C.1 Characterization of alternatives. Taking in account knowledge, data, studies and assessments on available alternatives to replace the chemical under consideration, complete the table C.1.1.

Table C.1.1 Characterization of alternatives

Alternative identification ¹	Description ²	Performance ³	Benefits ⁴	Limitations ⁵	Costs ⁶	References ⁷

¹ Provide the name of the alternative. If the alternative is a substance, indicate the chemical and/or common name. If it is a product, indicate its commercial name and the chemical name of the active ingredients, and if it a process, provide its common name.

² Provide a brief description of the alternative. If the alternative is a chemical, provide the relevant physicochemical properties. If it is a process, describe briefly its main phases and the chemical name of the substances involved in the process.

³ Provide data on the effectiveness and efficiency of the alternative.

⁴ Indicate any environmental, economic, social or health benefits reported by the use of the alternative.

⁵ Indicate any environmental, economic, social or health limitations reported by the use of the alternative.

⁶ Provide data on estimates obtained or reported on the costs derived from the use of the alternative. The costs can be environmental, health, social and/or economic.

⁷ Provide relevant references to support the information supplied.

C.2 Economic and technical feasibility of alternatives

C.2.1 What is the technical feasibility to replace the use of the products listed in the section A.3 by the alternatives listed in the table C.1.1?

a) High b) Medium c) Low d) Null

Provide data and/or relevant references to support the answer:

C.2.2 What is the economic feasibility to replace the use of the products listed in the section A.3 by the alternatives listed in the table C.1.1?

a) High b) Medium c) Low d) Null

Provide data and/or relevant references to support the answer:

C.4 Information on use of alternatives

C.4.1 Indicate on the table C.4.1 what alternatives, from those listed in the table C.1.1, have been used by the sector/office/group and at what scale?

Table C.4.1 Information on use of alternatives

Alternative identification ¹	Scale ²	Performance ³		Costs ⁴	References ⁵
		Efficiency	Effectiveness		

¹ Provide the name of the alternative reported on the table C.1.1

² Indicate the scale: pilot, experimental or commercial.

³ Provide additional data, if available, on the effectiveness and efficiency of the alternative.

⁴ Provide additional data, if available, on costs of the alternative.

⁵ Provide relevant references to support the information supplied.

C.4.2 Indicate the technical and economic feasibility to extend the use of the alternatives, reported in the table C.4.1 as used to experimental and pilot scale, to commercial scale. Mark out the feasibility in the table C.4.2

Table C.4.2 Technical and economic feasibility to extend the use of alternatives

Alternative identification	Technical feasibility				Economic feasibility			
	High	Medium	Low	Null	High	Medium	Low	Null

Provide relevant references to support the feasibility selected:

C.5 Identification of risks associated with the use of alternatives. Mark out on the table C.5.1 what risks (environmental, economic, etc.) have been identified or foreseen considering the lifecycle of the alternative.

Table C.5.1 Identification of risks associated with the use of alternatives.

Alternative identification	Type of risk	Lifecycle							References ²
		Manufacture	Formulation	Transport	Storage	Sale	Use	Treatment and/or final disposal	
	Environmental								
	Health								
	Economic								
	Social								
	Sustainable development ³								
	Environmental								
	Health								
	Economic								
	Social								
	Sustainable development ³								
	Environmental								
	Health								
	Economic								
	Social								
	Sustainable development ³								

² Provide relevant references that support the information supplied.

³ Risk that may affect national initiatives to the transition to sustainable development.

C.5.1 Describe the risks identified on the table C.5.1 including data and/or relevant references.

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SECTION D. ACCESS TO INFORMATION AND PUBLIC EDUCATION

D.1 List on the table D.1.1 sources of information (databases, websites, programmes, courses, workshops, etc.) related to the chemical and its alternatives.

Table D.1.1 Sources of information on the chemical and its alternatives.

Source of information ¹	Location ²	Type of access ³	Description ⁴

¹ Provide the name of the source.

² Provide the electronic or physical address of the source.

³ Indicate if the access is public or restricted.

⁴ Provide a brief description on the contents and use of the source.

SECTION E. STATUS OF CONTROL AND MONITORING CAPACITY

E.1 Complete table E.1.1. with information on the legislative framework of the chemical.

Table E.1.1 National legislative framework of the chemical

Regulation ¹	Description ²	Location ³

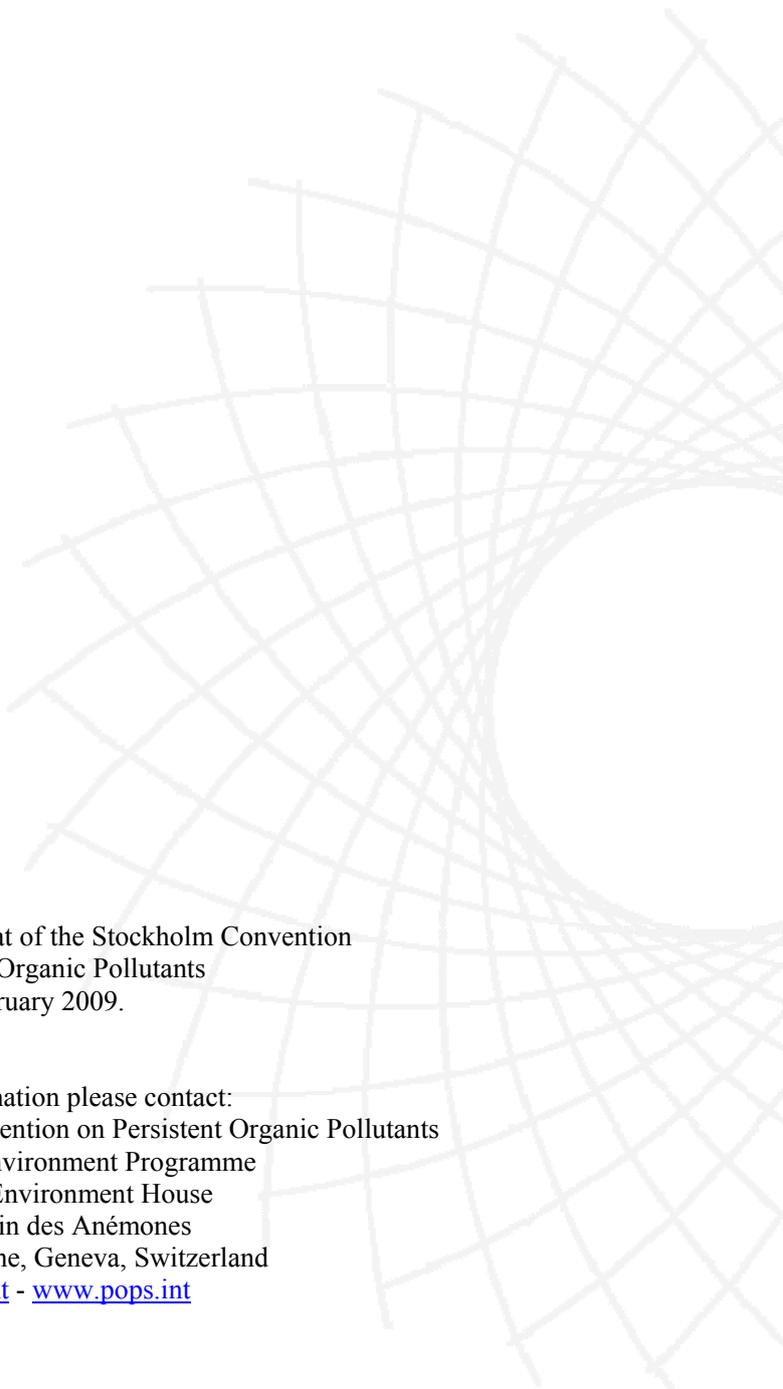
¹ Indicate the name of the most relevant national regulations (laws, acts, standards, etc.) applicable to the chemical.

² Describe briefly the regulation including the agency or office in charge of its implementation and enforcing.

³ Indicate the location in which the regulation can be consulted.

E.2 Describe the available infrastructure (laboratories, research centers, universities, etc., both public and private) to carry out an environmental monitoring and biomonitoring of the chemical (provide relevant references):

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For more information please contact:
Secretariat of the Stockholm Convention on Persistent Organic Pollutants
United Nations Environment Programme
International Environment House
11-13, chemin des Anémones
CH-1219, Châtelaine, Geneva, Switzerland
ssc@pops.int - www.pops.int
