



Guidance for Developing a National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants

2017

**Secretariat of the Basel, Rotterdam and Stockholm
Conventions**

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Abbreviations and acronyms

Alpha-HCH	Alpha hexachlorocyclohexane
Beta-HCH	Beta hexachlorocyclohexane
BAT and BEP	Best available techniques and best environmental practices
CIEN	Chemicals Information Exchange Network
ESM	Environmentally sound management
FAO	Food and Agriculture Organization of the United Nations
GEF	Global Environment Facility
GHS	Globally Harmonized System of Classification and Labelling of Chemicals
HBCD	Hexabromocyclododecane
HCB	Hexachlorobenzene
HCBD	Hexachlorobutadiene
HexaBDE and heptaBDE	Hexabromodiphenyl ether and heptabromodiphenyl ether
IOMC	Inter-Organization Programme for the Sound Management of Chemicals
IPM/IVM	Integrated pesticide/vector management approaches
MEA	Multilateral environmental agreement
NCC	National coordinating committee
NIP	National implementation plans
NLA	National lead agency
NPC	National project coordinator
NTE	National technical expert
PeCB	Pentachlorobenzene
PCP	Pentachlorophenol and its salts and esters
PCNs	Polychlorinated naphthalenes
PCU	Project coordination unit
PCDD	Polychlorinated dibenzo-p-dioxins
PCDF	Polychlorinated dibenzofurans
PIC	Prior Informed Consent
PFOS	Perfluorooctane sulfonic acid
PFOSF	Perfluorooctane sulfonyl fluoride
POP-PBDEs	Polybrominated diphenyl ethers
POPRC	Persistent Organic Pollutants Review Committee
SDGs	Sustainable Development Goals
TetraBDE and pentaBDE	Tetrabromodiphenyl ether and pentabromodiphenyl ether
WEEE	Waste electrical and electronic equipment

1. Introduction

1.1 The Stockholm Convention

The Stockholm Convention on Persistent Organic Pollutants, which was adopted in May 2001 and entered into force in May 2004, has the objective of protecting human health and the environment from persistent organic pollutants (POPs). The full text of the Convention and its annexes¹ is available on the Stockholm Convention website (www.pops.int). Parties to the Stockholm Convention are required to develop national implementation plans (NIPs) to demonstrate how the obligations of the Convention will be implemented, and to review and update their NIPs, as appropriate, periodically and to address new obligations under the Convention.

1.2 About this document

The first edition of this guidance was prepared by the World Bank and UNEP Chemicals, and issued in 2003, as part of a project funded by the Global Environment Facility (GEF) and supported by UNEP Chemicals to assist 12 countries² with the development of their NIPs and to strengthen national capacities for managing POPs and meeting their obligations under the Convention. The first edition guidance was developed with the financial support of Danish Cooperation for Environment and Development (DANCED) and was reviewed by an international panel composed of representatives of the United Nations Environment Programme (UNEP), United Nations Institute for Training and Research (UNITAR), United Nations Development Programme (UNDP), Food and Agriculture Organization of the United Nations (FAO), United Nations Industrial Development Organization (UNIDO), World Bank, World Wildlife Fund (WWF), World Chlorine Council (WCC), and the Governments of Chile, Denmark, Sweden, Switzerland, and Zambia.

The document was developed to provide guidance to countries and assist them in the process of developing a NIP. The Convention makes it clear that NIPs should be developed to address the specific needs of each Party and the first edition guidance was offered only as one way of meeting the requirement to develop a NIP, as appropriate. It was therefore not intended to be prescriptive and should be used, in whole or in part, when a Party feels it will contribute to the successful development of a NIP. The guidance was drafted with special attention to the needs of developing countries requiring specific guidance to start implementing the Convention and its amendments.

A second edition was issued in May 2005, to include specific guidance relevant to the implementation of the Rotterdam Convention. While there are differences between the Rotterdam and Stockholm Conventions, there are also close complementarities between them. Because the listing process under the Rotterdam Convention flows in part from final regulatory actions by Parties, it may be expected that at least some of the chemicals listed under the Stockholm Convention will be listed first under the Rotterdam Convention. Many chemicals are already listed under both Conventions. In national actions to implement the two Conventions, it will be important to consider these closely related sets of obligations and procedures in an integrated manner to ensure complementarity and avoid duplication and overlap. Countries are therefore encouraged to consider their obligations under the Rotterdam Convention when developing their NIPs for the Stockholm Convention. To facilitate this, references were inserted in the relevant sections of the second edition.

In May 2012, as part of the GEF-support project “Development of the Guidelines for updating of National Implementation Plans (NIPs) under the Stockholm Convention taking into account the new POPs added to the Convention” (executed by UNIDO, UNITAR, in collaboration with the Secretariat of the Stockholm Convention), a third edition was developed and retitled *Guidance for Developing, Reviewing, and Updating a National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants*.

Upon the request of the Conference of the Parties at its seventh meeting, this latest edition complements the earlier editions by addressing the review and updating of a NIP and, in particular, taking into account the need to do so due to changes in the obligations arising from amendments to the Convention in May 2013 and May 2015 to include 10 new chemicals in its Annexes A, B, and C. It also strengthens linkages with the Basel Convention and broader national chemicals management efforts. In response to Decision SC-7/10 with the request made by the Parties to continue updating of the guidance including on the basis of the comments received from Parties and others, thanks to the generous financial support from the European Union, the current guidance document was revised and

1 The Convention was amended at the first meeting of the Conference of the Parties to add a new Annex G on arbitration and conciliation procedures. The Convention text was also amended in 2009, 2011, 2013 and 2015 to include 14 new POPs to its Annexes A, B and C.

2 Barbados, Bulgaria, Chile, Ecuador, Guinea Conakry, Lebanon, Malaysia, Mali, Micronesia, Papua New Guinea, Slovenia, and Zambia.

updated incorporating such inputs. The guidance will continue to be revised as needed to take into account of issues arising during its use in the field.

1.3 Timeline

Each Party must transmit its NIP to the Conference of the Parties (COP) within two years of the date on which the Convention enters into force for the Party. For changes in obligations arising from amendments to the Convention or its annexes, including the addition of chemicals to Annex A, B, or C, a Party must review and update its NIP and transmit it to the COP within two years of the entry into force of the amendment for it. The process described in this document is designed to be completed within two years, although it may be completed in a shorter period.

1.4 Structure and use of this document

Chapter 1 of this document gives basic background information. Chapter 2 sets out general principles that help to guide the development, revision, and/or updating of the NIP. Chapter 3 sets out the basic obligation under the Stockholm Convention to develop a NIP. Chapters 4 to 9 describe the phases of the NIP development, review, and updating process, giving guidance on the objectives of each phase, the outcomes, the tasks to be undertaken, and the method applied, and summarizing available guidance material that may be useful.

Throughout the text, “hyperlinks”³ are used to take the reader to more detailed information on elements of the process or details of particular aspects of the technical work required. Each section lists guidance and reports that may be useful in compiling, reviewing, or updating a NIP. Where guidance reference is not yet available, countries should contact the Convention Secretariat or visit the website (www.pops.int) to check for any additional guidance that becomes available.

2. General Principles

This guidance has been compiled taking account of the following issues, which are considered important to the successful development, review, and updating of a NIP:

- A NIP should be tailored to meet the needs of the Party developing it, should be suitable for use by the Party to meet the obligations of the Stockholm Convention, and must be submitted to the COP.
- The development, review, and updating of a NIP should build on existing work and assessments where they are available and should not “reinvent the wheel”. This may include, for example, previous NIPs, national profiles, national Strategic Approach to International Chemicals Management (SAICM) implementation plans, national action plans for the implementation of the Rotterdam Convention, national Globally Harmonized System of Classification and Labelling of Chemicals (GHS) implementation strategies, waste management and other chemicals management implementation efforts.
- NIPs should not be developed, reviewed, or updated in isolation but should take due account of the aims of sustainable development in the sense of socially, economically, and environmentally appropriate policies and actions to maximize the overall benefits they produce. (For example, a NIP should be well integrated with national environmental action plans or environmental strategies.) They should be linked to related initiatives where possible to ensure maximum efficiency and reduce duplication of effort.
- In view of the synergies decisions —aspects of the Rotterdam Convention, for example, concerning the import and export of chemicals, and the Basel Convention, for example, concerning the environmentally sound management and disposal of hazardous wastes — countries are encouraged to consider the requirements of, and possible synergies with, the Rotterdam and Basel Conventions when developing, reviewing, or updating their NIP.
- It is important to see the NIP as a living document that will enable Parties to respond, inter alia, to the listing of new chemicals for which a Party would assume obligations.
- This guidance should be used in conjunction with the Stockholm Convention text and its annexes and does not substitute for a legal interpretation of the text or a point-by-point analysis of the measures required in a particular country.

³ Hyperlinks automatically link to other parts of this document or to electronic resources on the Internet, when the document is viewed on a computer.

3. National Implementation Plans

The Stockholm Convention requires the development, review, and updating of national implementation plans as detailed below.

3.1 Obligation – contained in Article 7 of the Convention

Article 7 of the Convention states:

“1. Each Party shall:

- (a) Develop and endeavour to implement a plan for the implementation of its obligations under this Convention;
 - (b) Transmit its implementation plan to the Conference of the Parties within two years of the date on which this Convention enters into force for it; and
 - (c) Review and update, as appropriate, its implementation plan on a periodic basis and in a manner to be specified by a decision of the Conference of the Parties.
2. The Parties shall, where appropriate, cooperate directly or through global, regional and subregional organizations, and consult their national stakeholders, including women’s groups and groups involved in the health of children, in order to facilitate the development, implementation and updating of their implementation plans.
3. The Parties shall endeavour to utilize and, where necessary, establish the means to integrate national implementation plans for persistent organic pollutants in their sustainable development strategies where appropriate.”

3.2 Identification of the need to review and update national implementation plans pursuant to Article 7

A number of factors can lead to a need to review and update the NIP. Each Party should regularly assess whether it is affected by any external or internal factors, such as those referred to in paragraphs 4 and 5 of the annex to decision SC-1/12:

External factors:

- (a) Changes in obligations arising from amendments to the Convention or its annexes, including the addition of chemicals to Annexes A, B or C;
- (b) Decisions of the Conference of the Parties that may affect how Parties implement Convention obligations, including adoption of guidance or guidelines;
- (c) Changes in the availability of technical or financial assistance; and
- (d) Changes in access to infrastructure external to the Party (e.g. disposal facilities).

Internal factors:

- (d) Reporting under Article 15 of the Convention indicating that the Party’s implementation plan is not adequate;
- (e) A change in national priorities;
- (f) A significant change in national circumstances (e.g. infrastructure or institutional arrangements); and
- (g) Inventories of persistent organic pollutants, after improvement or updating, indicating a change in the scope of the problem to be addressed.

As part of NIP review and update, Parties should also evaluate the efficacy of the adopted action plans, strategies, and measures included in their first or last updated NIPs. For example, Article 5 of the Convention (Measures to reduce or eliminate releases from unintentional production) specifically calls for a review, every five years, of related strategies and their success in meeting Convention obligations.

3.3 Outputs

A NIP that meets the obligations of the Stockholm Convention in a manner consistent with the needs and priorities of the Party and resources available to the Party.

Since the NIP will reflect the circumstances found in each country, it is not possible to specify exactly the level of detail needed in every case. This document, however, proposes an outline of recommended NIP elements (see [annex 10](#)) that may be used by Parties as a basis for the preparation, review, and updating of a NIP that is tailored to their needs and suitable for submission to the COP. The identification of needs through NIP development, revision or updating constitutes, for example, an important part of the assessment of needs required by developing country Parties and Parties with economies in transition to implement the Convention. The COP in decision SC-5/22 invited Parties to provide information on resources used and future funding needs using the reporting format available in annex 11 of this document. Furthermore the COP also requested parties to include executive summaries, identifying critical substantive and financial issues pertinent to their national implementation plans, in their submissions on funding needs to the COP. Assessments of funding needs, as an input of the COP to the negotiations on the replenishment of the Trust Fund of the GEF, are to be undertaken every four years starting at the sixth meeting of the COP. In developing the assessment of funding needs, the work will draw primarily upon information provided by Parties in the national implementation plans and reports submitted by parties pursuant to Article 15 of the Convention. Furthermore, these assessments of funding needed will include an estimation of baseline and agreed full incremental costs of activities described primarily in national implementation plans and required to implement parties' obligations under the Convention.

3.4 Primary responsibility

A national lead agency would be designated to take responsibility for setting up the structure and mechanisms to develop, review, and update the NIP. In the structure outlined in this document (see chapter 5), the national lead agency would set up a national multi-stakeholder coordinating committee and an executing body, which would draw on experts and task teams to complete the work. Experts might be from the country or other countries.

This structure and mechanisms established should include institutionalising regular review and updating of the NIP, and stocktaking of progress on NIP implementation, irrespective of an external trigger. Enhanced coordination at the national level to resolve issues and obstacles to progress should also be integrated. A plan for regular NIP review should be part of the NIP itself (see annex 10).

3.5 Stakeholders – who and why

The POPs issue impacts on many sectors, including policy-making, law-making, environmental protection, agriculture, public health, industry and the private sector, the public, and various interest groups. To develop, review, or update and implement an effective and successful NIP, a wide range of stakeholders must be involved and engaged in the process. The following list indicates some of the main groups to consider:

- Government policy makers (ministers/politicians/heads of departments or ministries): needed to ensure that the POPs issue is accorded appropriate priority and adequate resourcing.
- Government officials: key staff from Government departments and agencies able to coordinate necessary input and responsible for actions included in the NIP.
- Government officials responsible for the Rotterdam and Basel Conventions or other relevant multilateral environmental agreements (MEAs): as a means of ensuring coordination.
- Non-governmental organizations: relevant environmental and nature conservation organizations, academics, social organizations, women's groups, and industrial, commercial, agricultural, and labour organizations such as trade unions, all of which may play a role in or be affected by the use, manufacture, and trade of POPs and alternative chemicals.
- Regional economic integration zone partners: since POPs can have effects across boundaries and measures to regulate POPs may affect trade or need to be coordinated with other countries.
- International environmental organizations: to provide guidance and assistance (e.g. GEF implementing agencies responsible for NIP development, review, and updating, where applicable, i.e. UNEP, UNDP, the World Bank; and, for the purpose of enabling activities under the Stockholm Convention, also UNIDO, FAO, and the World Health Organization (WHO)).

In many cases, national inter-ministerial or multi-stakeholder coordination mechanisms for chemicals management may already exist and therefore NIP development, review, and updating (and implementation) activities could be included in the mandates of these existing mechanisms. Countries without a national coordination mechanism for chemicals management, however, may wish to consider establishing one as part of their NIP development activities and ensuring that it continues to function beyond the NIP project. Such a mechanism could address, for example, future NIP review and updating, as well as other new or ongoing processes for chemicals management, such as

national-level implementation of other chemicals-related MEAs, GHS, and SAICM, and linking these, where applicable, to broader frameworks such as national processes working on broader environment and health issues.

4. NIP Development, Review, and Updating – Summary of Phases

The process of developing, reviewing, and updating a NIP can be subdivided into five phases:

1. Establishment of a coordinating mechanism and organization process
2. Establishment of POPs inventories and assessment of national infrastructure and capacity
3. Priority assessment and objective setting
4. Formulation of the NIP
5. Endorsement and submission of the NIP

The following sections of this document consider each phase, detailing a possible series of objectives, tasks, and actions to be taken by identified individuals and groups to complete each phase of the process. A [schematic diagram of the process](#) is provided in annex 12.

The five phases of the NIP development, review, or updating process may be particularly useful for developing countries and countries with economies in transition to assist them in their efforts to prioritize their financial and technical assistance needs as well as in getting organized to meet the obligations of the Convention. Annex 10 (Recommended elements for consideration in outline of NIP) may be relevant to all countries in preparing comparable plans).

This approach is also in line with the elaborated process of reviewing and updating NIPs contained in the annex to decision SC-2/7.

5. Phase I – Establishment of Coordinating Mechanism and Organization Process

The successful development, review, or updating of a NIP requires that an effective project planning and management structure be put in place. Success is likely to depend on both an effective executing body responsible for the development, review, or updating of the NIP as well as a means to engage with a wider group of stakeholders. Phase I lays out steps and one possible mechanism to provide a firm base from which to develop, review, or update the NIP.

If a Party is preparing its first NIP, in some cases, national coordination mechanisms for chemicals management may already exist and could be adapted/used for NIP development. For NIP reviewing and updating, making use of mechanisms and structures already established for developing the initial NIP should facilitate and accelerate this phase of the process.

5.1 Objectives

- To raise awareness within Government departments, ministries, and agencies of the POPs issue, the Stockholm Convention, new POPs added to the Convention, and the need to develop, review, or update a NIP.
- To begin or continue the process of raising awareness of POPs issues with stakeholders outside Government.
- To achieve sufficient political commitment to enable the successful development, review, or updating of the NIP, including institutionalising regular NIP review and updating, as well as stocktaking of progress on NIP implementation, irrespective of an external trigger.
- To establish a structure and mechanisms for planning, managing, and supervising the development, review, or updating of the NIP consisting of an effective executing body and a mechanism to involve all relevant stakeholders, in particular building on work with other MEAs such as the Rotterdam and Basel Conventions.
- To produce a detailed project plan for the development, review, or updating of the NIP and gain the commitment of necessary expertise, resources, and facilities to successfully establish and maintain NIP “task teams” (see [annex 1](#)).
- To plan, initiate, and sustain an information dissemination campaign.

5.2 Outputs and outcomes

- Input obtained from all relevant Government departments for the creation of the executing body and review groups responsible for development, review, and updating of the NIP.
- Mechanism for NIP development, review, and updating and stakeholder involvement established, including committees and tasks teams to address particular aspects of the NIP development, review, and updating process as necessary (see [annex 1](#)).
- Agreement on plan for NIP development, review, and updating with responsibilities and resources assigned.
- Mechanism put in place for information dissemination to stakeholders and public as needed.

5.3 Primary responsibility

The establishment, through the “national lead agency”, of a national multi-stakeholder coordination committee and an executing body would be the ultimate responsibility of politicians and officials responsible for policy on MEAs, in particular the national Stockholm Convention focal point and those involved in negotiating/ implementing the Stockholm Convention.

Project planning and implementation would be the responsibility of a project coordination unit (PCU).

5.4 Stakeholders – who and why

Politicians/ministers with responsibility for MEAs must be involved to encourage coordinated implementation of the Stockholm Convention with other relevant MEAs such as the Rotterdam and Basel Conventions and to ensure appropriate high-level commitment. In addition, these stakeholders may need to seek further commitment from legislative bodies.

As appropriate, other government and non-governmental officials responsible for the implementation of chemicals-related MEAs, as well as the specific areas listed below, should be involved or consulted (also see [annex 1](#)):

- Environment: likely to have a leading role in overall management and coordination of the NIP and responsibility for environmental issues including waste management.
- Finance: necessary to secure the required financial commitment to development, review, updating, and implementation of the NIP and to take into account potential impacts on the economy.
- Agriculture: responsible for POPs pesticide use, in particular ensuring that the country is using the pesticides in accordance with the Convention specific exemptions and acceptable purposes.
- Industry: affected by regulations on production/disposal of waste and articles containing POPs as well as by-product releases.
- Import and export: required to adequately control POPs flows into and out of the country and as a possible source of information on articles containing POPs on the national market.
- Public health: particularly those involved in malaria vector control and control of head lice and scabies (to ensure DDT and lindane are addressed respectively) and issues of exposure to POPs.
- Trade: for issues that refer to the control of transboundary movements of POPs and POPs waste.
- Transport: for safe transport of chemicals.
- Waste disposal and recycling: affected by regulations on the disposal of POPs and the recycling and disposal of articles containing POPs.

Non-governmental:

- Representatives from industry and commerce such as trade associations and professional bodies: examples are chemical manufacturers; importers; exporters; end users; plastics industry; electrical and electronic equipment industry; furniture, textiles, and packaging material industry; waste management industry; power sector; and other industrial concerns affected by possible controls on intentional and unintentional production. POPs issues will impact many parts of the economy.
- Environmental, public health, and other civil society groups concerned with POPs: POPs can impact public and environmental health.
- Health and safety groups: workplace exposure is an important area for POPs management.

- Community representatives: including representatives of youth and women's groups and groups involved in the health of children and aboriginal groups, to ensure that their communities' concerns are taken into account.
- Academic and research institutions: the issue of POPs can be highly technical and may require specialist knowledge.

A general approach to establishing a coordinating mechanism and organizational structure is presented here and elaborated on in [annex 1](#). Other mechanisms or modifications to this approach might be used depending on what suits a country best. In some cases, national coordination mechanisms for chemicals management may already exist and could be adapted/used for the NIP development, review, or updating process.

The approach outlined in this document consists of a national coordinating committee (NCC), which would serve as a multi-stakeholder body responsible for overseeing (and ensuring stakeholder involvement in) NIP development, review, and updating; and a national lead agency (NLA) and a project coordination unit (PCU), which includes a national project coordinator (NPC), task teams, and experts, responsible for executing NIP development, review, and updating. A diagram of this proposed structure is presented in [annex 1](#).

The NLA, possibly a ministry or Government department of equivalent level, would be officially assigned the primary responsibility for Stockholm Convention implementation and be given the authority to establish or activate a national multi-stakeholder coordinating committee, provide it with administrative support, and ensure the integration of substantive work, as appropriate. The day-to-day work would be ensured by the PCU.

5.5 Tasks

Establishment of a project coordinating unit and national coordinating committee

The NLA should:

- Identify or confirm the NPC, who will be responsible for project management and managing the work of the PCU.
- Organize the membership of the PCU, which will take executive responsibility for the development, review, and updating of the NIP.
- Prepare a preliminary list of key stakeholders inside and outside Government who should be engaged in the NCC or alternative mechanism for stakeholder engagement.
- Develop terms of reference for the PCU, NPC, and consultants to be engaged in the process (suggested terms of reference are given in [annex 1](#)).
- Develop mechanisms for members of the PCU and NCC to communicate, transmit information, agree assignments, and receive feedback.
- Establish the PCU and commence project planning.

When reviewing and updating the NIP to address Convention requirements that are specific to new POPs, consideration should be given to bringing in additional stakeholders as appropriate. For example, regarding the 2009, 2011, 2013 and 2015 amendments to the Convention to include the 14 new POPs added to its Annexes A, B and C, and because certain POPs such as polybrominated diphenyl ethers (POP-PBDEs), perfluorooctane sulfonic acid (PFOS) and HBCD occur in a wide variety of articles, requirements regarding the presence of POPs in articles and the management of these articles have become more relevant. It may therefore be necessary to invite additional stakeholders to join the NCC and to establish additional task teams with expertise specific to the new POPs. (Issues related to the new POPs pesticides, however, may be to a large extent similar to those related to the initial POPs pesticides.)

Project plan and organization

The PCU would:

- Formulate a project plan that assigns responsibilities, resources, and budgets required for NIP development, review, and updating; and identify training and capacity-building needs for the tasks to be undertaken. This guidance and the outline of recommended NIP elements (see [annex 10](#)) can help to define the elements of the project plan.
- Finalize the structure for NIP development, review, or updating including procedures for coordination of the core team, and wider stakeholder involvement, as appropriate; and a mechanism for identifying and responding to needs in terms of internal capacity-building and external assistance.
- Identify and establish "task teams" (see [annex 1](#)) to take the lead on technical tasks in phase II.
- Identify existing programmes and initiatives that may be linked to the POPs issue (e.g. obsolete pesticides management

programme, Rotterdam and Basel Convention implementation efforts, integrated vector control programme, emission inventory initiatives, sustainable development programme). Ensure that links are made to these programmes and initiatives to coordinate with the POPs programme.

Public information and awareness raising

Direct or indirect cooperation with national stakeholders is required, where appropriate, by Article 7, paragraph 2, of the Convention. Once established, the NCC would be responsible for planning how public and stakeholder awareness should be raised, how stakeholders will be consulted, how information should be communicated and how questions and concerns should be managed.

Consideration should be given to involving all stakeholders, including non-governmental organizations and independent experts having experience in outreach campaigns on chemical risk prevention; and to ensuring free access to information to all interested parties, taking language-specific considerations into account. Where appropriate, a dedicated information system could be established.

5.6 Method and approach

- Initiate a “planning and inception meeting” of key Government departments and agencies to establish the PCU and identify the NPC. Circulate beforehand a briefing document on the Stockholm Convention, commitments, background on issues and assessment of POPs issues in the country, a suggested list of stakeholders to be considered for inclusion, and a suggested format for stakeholder input. The outcomes of this meeting would be the expected membership of the PCU, a clear idea of the NPC, an agreed strategy for stakeholder involvement and project supervision, and an outline of an initial NCC, including its composition and chair.
- Finalize membership of the PCU and assemble preparatory documents and information for members, including a draft agenda and expected results of the first PCU meeting, and basic ground rules for the operation of the PCU.
- Convene the first PCU meeting to set out and agree rules for the development of the NIP, outline technical aims and objectives, assign responsibilities for areas of NIP assessment and development, agree a mechanism for stakeholder involvement, initiate establishment of the NCC, develop a project plan, and estimate related resources required and key players that must be involved.
- Hold first NCC meeting to brief stakeholders on the Convention and its information requirements, rationale, and objectives. Present the project plan for NIP development. Gather feedback on composition of the NCC, interests, and aims of stakeholders and issues that need to be addressed and suggest a mechanism for receiving additional inputs.
- Get agreement on the proposed project plan for the development of the NIP, consulting with all members of the PCU and, if necessary, convening a second meeting to finalize the plan. Communicate the plan to the NCC and wider stakeholder group as appropriate.
- Develop a mechanism to engage stakeholders throughout the development and implementation of the NIP. If appropriate, produce outreach information on the POPs issue for distribution to potential stakeholders and organize a point of contact for anyone seeking information on the development of the NIP. Consider setting up a mechanism to respond to requests for information on POPs from the public, industry, and others.
- For reviewing and updating the NIP, revisit the above as appropriate.

5.7 Available guidance documents

- [Ridding the world of POPs: A guide to the Stockholm Convention on Persistent Organic Pollutants](#) (Secretariat of the Stockholm Convention, 2010)
- [The 9 new POPs](#) (Secretariat of the Stockholm Convention, 2010)
- [The New POPs Risk Management Evaluations 2005-2008 \(POPRC1 - POPRC4\)](#) (Secretariat of the Stockholm Convention)
- [Prevention and Disposal of Obsolete Pesticides \(FAO, 2009\)](#)
- [Protecting Human Health and the Environment: A Guide to the Rotterdam Convention on trade in hazardous chemicals and pesticides](#) (UNEP/FAO, 2004)
- [Overview of the Rotterdam Convention](#) (UNEP/FAO, 2008)
- [Developing and Sustaining an Integrated National Programme for the Sound Management of Chemicals](#) (UNITAR/IOMC, 2004)
- [Guidance for Developing SAICM Implementation Plans](#) (UNITAR/SAICM Secretariat/IOMC, 2009)

- Guidance on Action Plan Development for Sound Chemicals Management (UNITAR, 2009),⁴annexed to [Guidance on Calculation of Action Plan Costs for Specific Persistent Organic Pollutants](#) (Secretariat of the Stockholm Convention, 2012)
- For guidance on accessing chemicals-related information, resources, and training materials on the Internet and on creating an information exchange network, see the Chemical Information Exchange Network (<http://www.exchangenetwork.net/>) or contact UNEP (<http://www.unep.fr>)

6. Phase II – Establishment of POPs Inventories and Assessment of National Infrastructure and Capacity

6.1 Objectives

- To obtain, review and summarize information on the sources, use, and production of POPs, including gathering information on presence in stockpiles and wastes, and determine the baseline situation.
- To identify gaps in resources, capacity, and knowledge that prevent the complete assessment of the status of POPs.
- To identify whether the current situation meets the requirements of the Stockholm Convention, and other chemicals and waste conventions if possible, and identify areas where it does not.
- To fulfil reporting obligations under the Stockholm Convention.
- To identify technical and financial assistance needed to complete NIP development, review, or updating as well as implementation.
- To facilitate coordination and integration with national sustainable development, chemicals management, and pollution control policies.
- To facilitate coordination, as appropriate, with activities addressing other MEAs, e.g. Rotterdam and Basel Conventions.

6.2 Outputs and outcomes

- Baseline data to support assessment of the POPs issue in the country. Some of the following suggested information may be provided where feasible and available:
 - Relevant country background.
 - The manufacture, import, export, distribution, use, and management of POPs chemicals.
 - Institutional setting and infrastructure assessment for POPs management, regulation, and enforcement.
 - The health and environmental impacts of POPs.
 - Preliminary inventory of POPs pesticides or update of existing one.
 - Preliminary inventory of PCB-containing equipment, or update of existing one.
 - Preliminary inventory of industrial chemicals and POPs in articles, or update of existing one.
 - Preliminary inventory of releases of unintentionally produced POPs, or update of existing one.
 - Summary of relevant data on environmental contamination and exposure.
 - Review of legal and enforcement mechanisms.
 - Analysis of the socio-economic aspects of POPs use.

Regarding the new POPs, Parties may conduct a preliminary inventory of the presence of these POPs within the country, and then decide which ones need a national inventory. Task teams with expertise in specific areas, such as POPs pesticides and industrial chemicals, would be responsible for conducting the assessment. The preliminary inventory aims at providing the information on the following:

- Types of processes using new POPs, including concentrations of those substances used in such processes.
- Types and quantities of articles containing new POPs.

⁴ In particular, see Annex D, “Principles for Cooperation with Stakeholders in Policy Development and Programme Implementation”.

- Types of articles containing new POPs that are recycled, the extent of recycling, the types of articles produced from recycling, the options for the environmental management of recycling operations, and releases or potential releases resulting from recycling operations.
- Types of alternatives identified at the international level used in products and processes at the national level.
- Types and quantities of new POPs stockpiles.
- Options used for the management of wastes containing new POPs, including products and articles that become waste.
- Location of contaminated sites potentially contaminated with new POPs.

Where possible, data on new POPs should be obtained through a review of existing information.

Due to the complexity of POP-PBDE inventories, countries should adopt a tiered approach to collecting data, as explained in the [POP-PBDE Inventory Guidance](#) (Secretariat of the Stockholm Convention, 2015). The first tier—the “initial assessment”—involves a desk study to become familiar with POP-PBDE-containing articles: (i) getting an overview of the former uses of POP-PBDEs in articles; (ii) collecting information about existing past and present national data on the import and use of POP-BDEs and articles containing POP-BDEs (and alternatives); (iii) and evaluating and verifying this information, if possible, and undertaking a gap analysis of the data. The second, more advanced tier—the “preliminary inventory”—involves site visits, desk research, and surveys to further estimate the national data that were identified as missing information in the initial assessment. The third tier—the “in-depth inventory”—may be undertaken when the preliminary inventory concludes that POP-PBDEs could pose high human health and environmental risks in the country and more accurate data are needed to prioritize risk reduction measures and estimate their costs. This tier could include the following activities: site inspections; screening using X-ray fluorescence (XRF); and measurements of samples using liquid chromatography (LC) mass spectrometry (MS) LC/MS/MS.

Similarly for the inventories of PFOS and HBCD, countries should consider a tiered approach as outlined in the [PFOS Inventory Guidance](#) (Secretariat of the Stockholm Convention, 2015) and the [HBCD Inventory Guidance](#) (Secretariat of the Stockholm Convention, 2015), respectively. The first tier—the “initial assessment”—involves a desk study, consultations with stakeholders, and obtaining information from customs. The second tier—the “preliminary inventory”—involves more in-depth data collection from identified stakeholders. The third tier—the “in-depth inventory”—includes site visits and sampling. Guidance documents on inventory development for PCP, PCN and HCB are currently under preparation and expected to be made available to Parties during 2017.

6.3 Primary responsibility

Under the guidance and supervision of the NCC, the PCU would be responsible for coordinating and managing the development of background information and options for defined areas, using task teams and other expert assistance from outside, as appropriate. For example, a country may decide that it requires task teams on POPs pesticides, PCBs, POP-PBDEs, PFOS, unintentional POPs, and contaminated sites. Other tasks could be undertaken by the PCU, nominated members of the PCU, or external experts under supervision of the PCU.

6.4 Stakeholders – who and why

For this phase of NIP development, review, or updating, the input of stakeholders with specific knowledge and factual information is particularly important. It would be important to identify those groups and individuals who hold key information and to work closely with them. These might include, for example, actual users of POPs pesticides, to aid understanding of the extent of the needs (real or perceived) and the way that such substances are used and stored; and industry representatives, who could provide realistic information relevant to assessing likely sources of unintentionally produced POPs as well as the presence of POPs in articles and wastes and details regarding their management.

6.5 Tasks

The suggested list of areas that need to be considered to provide a suitable baseline for NIP development, review, and updating are summarized in the outline of recommended NIP elements contained in annex 10. These and the descriptions of tasks given below should be read together.

- Review tasks required for this phase and consider whether training or external assistance is required to ensure maximum effectiveness of the task teams carrying out the assessments.
- Assemble simple, summary information to complete/update the descriptive sections of the NIP (possible section headings are provided in the outline of recommended NIP elements in annex 10). This might come from the previous

NIP, an existing national profile on chemicals management, SAICM implementation plan, or other similar pre-existing summaries.

- If a National Profile has not been prepared, then consider whether it should be initiated and integrated with NIP development, review, or updating. See [Preparing a National Profile to Assess Infrastructure and Capacity Needs for Chemicals Management. Guidance Document. Second Edition 2012](#) (UNITAR, 2012) and the POPs-related supplement [Preparing/Updating a National Profile as Part of a Stockholm Convention National Implementation Plan](#) (UNITAR/UNEP 2003).
- Review other information that may be available, for example, through POPs Social, a Social Networking Platform of the Stockholm Convention Clearing House Mechanism. POPs Social (<http://networking.pops.int>) provides a platform for open debate and direct expert-to-expert exchange on issues related to the Stockholm Convention. Information can be shared on Events, Blogs, Documents, and Forums. Also, the Chemicals Information Exchange Network (CIEN), at <http://jp1.estis.net/communities/cien>, can be used as it provides a mechanism that helps networking and collaboration among various stakeholders related to chemicals management.
- Initiate/update the assessments of “intentionally produced” chemicals as they are defined in the Convention. For the purposes of this guidance document, the assessments for this group of chemicals are split into the following sections: “Assessment of POPs pesticides” (see [annex 2](#)), “Assessment of PCBs” (see [annex 3](#)), “Assessment of POP-PBDEs and HBB” (see [annex 4](#)), “Assessment of PFOS, its salts and PFOSF” (see [annex 5](#)), “Assessment of HBCD” (see [annex 6](#)), “Assessment of HCB” (see [annex 7](#)) and “Assessment of PCN” (see [annex 8](#)).
- Initiate/update the “Assessment of releases of unintentionally produced chemicals” (see [annex 9](#))
- Conduct preliminary inventories of the presence of the new POPs within the country, and then decide on which ones need a national inventory.
- Conduct a national survey, as appropriate. National surveys may be conducted as an additional mechanism to fill in data gaps on the presence of new POPs in a country. A survey can target a specific sector or group of users of new POPs. It can be useful to find out the impacts of control measures on the production or use of the new POPs. Members of the NCC can assist in identifying which sectors are likely to use the new POPs and should be surveyed. For conducting the survey, carefully designed questionnaires should be sent to potential stakeholders. The forms used to compile information according to Annex E and F of the Stockholm Convention can serve as guidance for the design of such questionnaires. These forms are found in the [Handbook for Effective Participation in the Work of the POPs Review Committee](#). A sample questionnaire that may be used for a preliminary inventory of the use of PFOS in specific industrial sectors is contained in the [PFOS Inventory Guidance](#) (Secretariat of the Stockholm Convention, 2015). The questionnaire can be adapted to survey other sectors that are of relevance in a country.
- As some POPs appear in more than one category, ensure that all relevant information is considered for these chemicals. It is important to note, for example, that hexachlorobenzene (HCB) and pentachlorobenzene (PcCB) may be considered a POPs pesticide and an industrial chemical and can also be an unintentionally produced POP. PCBs, HCB and PCNs are industrial chemicals that also occur as unintentionally produced POPs. Alpha hexachlorocyclohexane and beta hexachlorocyclohexane (alpha- and beta-HCH) are pesticides and also occur as unintentionally produced POPs.
- Review and evaluate the legal framework and institutional infrastructure with reference to meeting the requirements of the Stockholm Convention. In addition, an assessment should be done of the framework and infrastructure in place and needed to implement other MEAs, such as the Rotterdam and Basel Conventions, and whether these might be applicable. When strengthening/developing the necessary infrastructure for the Stockholm Convention consideration should be given to simultaneously addressing the relevant needs for implementation of the Rotterdam and Basel Conventions. When updating a NIP, it is also important to reflect changes in the legal framework and institutional infrastructure pertaining to the management of POPs that may have occurred since the NIP was first developed or last updated. See [Developing National Legal Frameworks to Implement the Stockholm Convention on Persistent Organic Pollutants – A Guide](#) (Secretariat of the Stockholm Convention, 2011).
- Review the status of import decisions taken under the Prior Informed Consent (PIC) procedure of the Rotterdam Convention for those chemicals that are also subject to the Stockholm Convention as a means of defining national objectives regarding these substances.
- Clearly identify gaps, such as in available information, deficiencies in technical expertise, and enforcement capacity, as they become apparent.
- Formulate a list of priority areas or areas of great concern that have been uncovered during the process of the assessments and summarize the state of knowledge, known impacts, and likely risks as well as possible remedial actions.
- Assemble and summarize available data on levels of POPs chemicals in the environment and human exposure. It is

valuable to collect any relevant data on concentrations of POPs in environmental media – air, soil, water, sediment, plants, and animals. In addition, any work on human or ecosystem exposure should be reviewed and summarized. The resulting summary should contain details of measurements that have been taken, any programmes that are in place or have been conducted, international studies (such as the WHO contamination of breast milk studies⁵), and the types of samples included. Ensure that links are made, when appropriate, to relevant national initiatives to eliminate duplication or conflict and maximize efficiency (e.g. chemicals management, waste management and disposal, pollution control, MEA implementation, sustainable development).

- Identify and evaluate any relevant regional, subregional, and international agreements (including Rotterdam and Basel Conventions) and note any appropriate linkages to the development, review, or updating of the NIP.⁶
- Take into consideration linkages between chemicals management at the national level and the implementation of SDGs, including goals and targets on sustainable consumption and production patterns.
- Plan for, facilitate, and engage in information exchange with other Parties as detailed in Article 9 of the Convention. The PCU may find valuable information to assist with NIP development, review, or updating through such information exchange.
- Continue to address the need for public information, awareness raising, and education in accordance with Article 10 of the Convention and in line with the project plan.
- Consider research, development, and monitoring aspects in accordance with Article 11 of the Convention.
- Drawing on the knowledge gained in the course of carrying out the above tasks, consider the socio-economic effects, including negative aspects for workers and local communities, of POPs use, elimination, replacement, and reduction as well as the commercial infrastructure for introducing benign alternatives. Some notes relevant to a [socio-economic assessment](#) are included in annex 11 of this document, [Draft Guidance on Socio-Economic Assessment for National Implementation Plan Development and Implementation under the Stockholm Convention](#) (Secretariat of the Stockholm Convention, 2007), and [Technical Guidance Document on the Use of Socio-Economic Analysis in Chemical Risk Management Decision Making](#) (OECD, 2002).

6.6 Method and approach

This phase of the NIP development, review, or updating process is likely to be one of the major steps and requires strong technical input and thorough investigation of the situation. To successfully manage the process, it will be important to have good communication between the NPC and members of the PCU, as well as between the task teams and individuals responsible for specific assessments and drafting tasks.

It is expected that the main effort for data collection, generation, and assembly will be the responsibility of the task teams. Periodic briefings and meetings of the PCU could be used to ensure that all members are aware of the progress being made and to review the aims and findings of the tasks as they progress. The NCC should be kept involved with the developments in line with the mechanism agreed previously.

6.7 Available guidance documents

- [Guidance Document for the Collection, Assembly and Evaluation of Data on Sources, Environmental Levels and Impacts of Persistent Toxic Substances](#) (UNEP Chemicals, 2000)
- [Toolkit for Identification and Quantification of Dioxins, Furans and Other Unintentional POPs](#) (Secretariat of the Stockholm Convention, 2013)
- [Guidance for the Inventory of Perfluorooctane Sulfonic Acid \(PFOS\) and related Chemicals listed under the Stockholm Convention on POPs](#) (Secretariat of the Stockholm Convention, 2015)
- [Guidance for the Inventory of Polybrominated Diphenyl Ethers \(PBDEs\) listed under the Stockholm Convention on POPs](#) (Secretariat of the Stockholm Convention, 2015)
- [Guidance for the inventory, identification and substitution of Hexabromocyclododecane \(HBCD\)](#) (Secretariat of the Stockholm Convention, 2015)
- [Information and programmes](#) on obsolete pesticides:

⁵ See http://www.who.int/foodsafety/areas_work/chemical-risks/pops/en/index1.html . Also see [Fourth WHO-Coordinated Survey of Human Milk for Persistent Organic Pollutants in Cooperation with UNEP: Guidelines for Developing a National Protocol](#) (WHO, 2007).

⁶ For assistance please contact the Secretariat of the Stockholm Convention at ssc@pops.int.

http://www.fao.org/WAICENT/FAOINFO/AGRICULT/AGP/AGPP/Pesticid/Disposal/guides_en.htm

- [Guidance to Designated National Authorities on the Operation of the Rotterdam Convention](#) (UNEP/FAO, 2006)
- [Decision Guidance Documents](#) (DGDs) for the individual chemicals subject to the Prior Informed Consent (PIC) procedure under the Rotterdam Convention
- [PIC Circulars](#)
- [FAO training manual for inventory taking of obsolete pesticides, FAO Pesticide Disposal Series 10](#) (FAO, 2001)
- [Guidelines for the Identification of PCBs and Materials Containing PCBs](#) (UNEP, 1999)
- [PCB Inventory Form – Inventory of PCB-Containing Equipment](#) (UNEP, 2002)
- [Identification of PCB-containing capacitors – an information booklet for electricians and electrical contractors](#) (Australian and New Zealand Environment and Conservation Council, 1997, Revised 2005)
- [PCBs. A Compilation of Information Derived from HELCOM Recommendations, EU-Directives, UN-ECE-LRTAP, UNEP and OSPAR, and Analysis of Appropriate Measures Aiming at Safe Handling and Reduction of Releases of PCB from PCB-Containing Equipment in Use](#) (HELCOM, 2001)
- [PCBs. A Compilation and Evaluation of the Information Given by the Contracting Parties with the Focus on Legislative Situation, Current Uses, Stockpiles and Releases](#) (HELCOM, 2001)
- [Framework for the Management of PCBs](#) (IFCS, 2002)
- [PCB Transformers and Capacitors – From Management to Reclassification and Disposal](#) (UNEP, 2002)
- [PCB and PAH Releases from Incineration and Power Generation Processes, R&D Technical Report P4-052/TR](#) (Environment Agency (England And Wales), 2002)
- [Fourth WHO-Coordinated Survey of Human Milk for Persistent Organic Pollutants in Cooperation with UNEP: Guidelines for Developing a National Protocol](#) (WHO, 2007)
- [Preparing a National Profile to Assess Infrastructure and Capacity Needs for Chemicals Management. Guidance Document. Second Edition 2012](#) (UNITAR, 2012)
- [Preparing/Updating a National Profile as Part of a Stockholm Convention National Implementation Plan](#) (UNITAR/UNEP 2003)
- [Technical Guidance Document on the Use of Socio-Economic Analysis in Chemical Risk Management Decision Making](#) (Environment Directorate, OECD, 2002)
- [Startup guidance on the 9 new POPs](#) (Secretariat of the Stockholm Convention, 2010)
- [Guidance on Calculation of Action Plan Costs for Specific Persistent Organic Pollutants](#) (Secretariat of the Stockholm Convention, 2012)
- [Draft Guidance on Socio-Economic Assessment for National Implementation Plan Development and Implementation under the Stockholm Convention](#) (Secretariat of the Stockholm Convention, 2007)
- [Technical Guidance Document on the Use of Socio-Economic Analysis in Chemical Risk Management Decision Making](#) (OECD, 2002)
- [Guidance on the Global Monitoring Plan for Persistent Organic Pollutants](#), version 2013 (Secretariat of the Stockholm Convention, 2015)
- [Developing National Legal Frameworks to Implement the Stockholm Convention on Persistent Organic Pollutants – A Guide](#) (Secretariat of the Stockholm Convention, 2011)
- [Guidance for Strengthening the Regulatory Framework to Enable Regular Monitoring of Products and Articles that may Contain New POPs](#) (Secretariat of the Stockholm Convention, 2012)
- For guidance on accessing chemicals-related information, resources, and training materials on the Internet and on creating an information exchange network, see the Chemical Information Exchange Network (<http://jp1.estis.net/communities/cien>) or contact UNEP (<http://www.unep.fr>)

7. Phase III – Priority Assessment and Objective Setting

7.1 Objectives

- To develop country-specific criteria for prioritizing health and environmental impacts of POPs.
- To assess the available information from phase II to identify priority areas for attention.
- To identify data and other gaps in the information available that prevent a full priority assessment from being carried out.
- When undertaking NIP review and updating, to reassess national priorities (e.g. new priorities due to new POPs, initial priorities in the first developed or last updated NIP) and make adjustments accordingly.
- To set appropriate short- and long-term objectives, goals and measurable indicators for the management of POPs in compliance with the Stockholm Convention as well as using the Rotterdam and Basel Conventions as a means for the identification and proactive/preventive action to effectively manage chemicals with POPs-like characteristics.

7.2 Outputs and outcomes

- A set of country-specific criteria for prioritizing health and environmental impacts of POPs.
- A priority assessment of issues to address in the management of POPs for the country (and identification of data gaps and deficiencies preventing a full assessment), including the identification of potential donor institutions and financial mechanisms.
- A series of national objectives, goals and measurable indicators that guide the development, review, and updating of the NIP and the development of preliminary country activities for POPs management in compliance with the Stockholm Convention.
- Understanding of the possible links to the Rotterdam and Basel Conventions and opportunities for synergy – collaborative action between the three Conventions.

7.3 Primary responsibility

The PCU would undertake the development of criteria and review of the work done to establish/update the baseline situation. External expertise may be required from consultants, other Government departments or others. Preliminary recommendations made by the PCU would be reviewed by the NCC to help formulate the priorities for the country and to help set objectives.

To help ensure that the work done under the Rotterdam and Basel Conventions is given full consideration the designated national authority identified under these Conventions should be involved.

7.4 Tasks

- Develop criteria or indicators that would help to show whether findings from data gathering and other POPs-related information indicate the likely existence of a significant problem. The criteria should take into account health, environmental, and socio-economic impacts and availability of alternatives.
- Carry out a review of the findings of the Assessment of [POPs pesticides \(annex 2\)](#), Assessment of PCBs ([annex 3](#)), Assessment of POP-PBDEs and HBB (see [annex 4](#)), Assessment of PFOS, its salts and PFOSF ([annex 5](#)), Assessment of HBCD ([annex 6](#)), Assessment of HCBD (see [annex 7](#)), Assessment of PCN (see [annex 8](#)), and the Assessment of releases of [unintentionally produced chemicals](#) ([annex 9](#)), and other information gathered against the criteria developed above.
- Review the findings of the legislative review carried out in phase II against the requirements of the Stockholm Convention to identify those areas where changes are required, the nature of the changes needed, and the timetable over which to implement the changes consistent with a Party's obligations under the Convention. Also, building on phase II, review the legal requirements and obligations arising from other national, regional, and international agreements (e.g. national policies on chemicals management, regional agreements that address POPs, or relevant provisions of the Basel and Rotterdam Conventions) and identify shortcomings in institutional, legal, and environmental situations relevant to these.
- Review the institutional framework to identify possible priority areas requiring strengthening and improvement.
- Based on the review, formulate priorities for actions to meet the country's obligations under the Stockholm Convention, giving due attention to Convention Articles 3, 4, and 5 and their associated annexes. In the case of NIP review and

updating, reassess national priorities (e.g. new priorities due to new POPs, initial priorities in the first developed or last updated NIP) and make adjustments accordingly.

- Carry out an initial objective-setting exercise (or in the case of NIP review and updating, reassess NIP objectives taking into account new POPs and accomplishments since the first developed or last updated NIP). The PCU should provide background information on the current situation, including data gaps and deficiencies, and an outline of possible objectives related to POPs management. The NCC might work with a wider stakeholder group or through a process of workshops, for example, to discuss suitable short- and longer-term objectives. These preliminary objectives could be used to inform the next phase of NIP development and would be subject to review and updating as additional information became available.

7.5 Method and approach

The PCU would develop a list of possible criteria for assessing the priority of POPs-related issues. This list could be cross-checked against criteria used in other countries and reviewed by international organizations or experts. The PCU should consider a review by the NCC before finalizing the criteria.

The PCU would initiate reviews of the data gathered in phase II as described above and provide an initial assessment of the key areas and priorities using the criteria developed. These would be presented to the NCC for its input.

Based upon the requirements of the Stockholm Convention, the assessment of changes required to implement them, and the identified priorities, the PCU would draw up a list of possible objectives for POPs management and implementation of the Convention. The NCC would review the possible objectives and set out preliminary objectives for the short and longer term for POPs management and the development of the NIP.

7.6 Available guidance documents

- [Guidance on Action Plan Development for Sound Chemicals Management](#) (UNITAR, 2009), annexed to [Guidance on Calculation of Action Plan Costs for Specific Persistent Organic Pollutants](#) (Secretariat of the Stockholm Convention, 2012)
- [Guidance for Developing SAICM Implementation Plans](#) (UNITAR/SAICM Secretariat/IOMC, 2009)
- [Developing a Risk Management Plan for a Priority Chemical](#) (UNITAR, 2001)

8. Phase IV – Formulation of National Implementation Plan

8.1 Objectives

- To identify and gather information on possible options for management of POPs to meet obligations under the Stockholm Convention (and relevant obligations under the Rotterdam and Basel Conventions) with an indication of the scope of application, limitations, costs, and benefits of each.
- To prioritize the options available and actions necessary to meet the requirements of the Stockholm Convention and country objectives.
- To draw up an initial or updated draft NIP suitable for the country to meet the needs of the Stockholm Convention and its country-specific objectives and priorities, coordinated with national activities on sustainable development and related goals, where appropriate.
- To identify requirements for assistance in the completion of additional assessments and information gathering to complete and implement the NIP.

8.2 Outputs and outcomes

- Review of options available to meet the obligations of the Stockholm Convention (and where relevant the Basel and Rotterdam Conventions) as well as country objectives for POPs management.
- An initial or updated draft NIP suitable for submission to the COP providing an appropriate and detailed roadmap plan (drawing together action plans addressing aspects of POPs management with supporting information as needed) for the implementation of the Stockholm Convention and meeting country objectives for POPs management, with responsibilities clearly assigned and implementing mechanisms well defined.
- Identification of needs for capacity-building and external assistance to meet obligations under the Convention and if possible a portfolio of potential projects to implement.

8.3 Primary responsibility

Task teams with expertise on certain POPs would be responsible for identifying management options and drafting corresponding action plans, under the supervision of the PCU. The PCU could also draw on assistance from other consultants, external experts, and international organizations. The process would be reviewed and monitored by the NCC in accordance with the mechanisms that are in place.

8.4 Tasks

Assessment of options

Based on the results of the review carried out in phase III of the current situation in the country and identifying where this does not meet Convention obligations and country priorities and objectives, formulate a focused list of options and measures to take the country to the desired position. It may be helpful to consider each group of chemicals addressed (POPs pesticides, industrial chemicals/PCBs, and unintentionally produced POPs) and develop a series of steps with costs, resource needs, implications, and benefits/results evaluation. The options could then be reviewed in terms of their cost effectiveness and benefit-cost. It would also be useful to determine whether country objectives need to be modified in the light of the findings, available resources, and any changes in priorities.

[Guidance on Calculation of Action Plan Costs for Specific Persistent Organic](#) Pollutants (Secretariat of the Stockholm Convention, 2012), which includes details on Convention obligations (and related “Decision Trees”), possible associated activities, and guidance on action plan development, may also be useful. In addition, guidance on the use of one holistic approach to environmental technology assessment and a framework for environmental risk assessment is available in the [Technical Workbook on Environmental Management Tools for Decision Analysis](#) (UNEP, 2000).

NIP development, review, and updating – general issues

The Convention refers to the development of specific action plans and strategies, e.g. action plans on DDT and PFOS, a strategy to identify contaminated sites. Parties are encouraged to conduct an analysis of the Convention to determine the specific requirements or suggested elements for each. This guidance also recommends additional action plans and strategies that are not explicitly mentioned in the Convention, but may be helpful in organizing the activities and meeting a Party’s obligations to develop, review, or update a NIP (see annex 10 of this document).

In developing action plans and strategies for the Stockholm Convention, there may be considerable benefit in overall effectiveness and efficiency in coordinating activities with the Basel and Rotterdam Conventions. Linkages with the key elements of the Basel and Rotterdam Conventions are therefore highlighted within this document. Opportunities for cooperative action with the implementation of the Basel and Rotterdam Conventions are identified in the more detailed guidance on individual action plans to be developed under the Stockholm Convention. Linkages between the Conventions are further described in a document entitled [The Hazardous Chemicals and Wastes Conventions](#) (UNEP, 2002). Parties may, where necessary and appropriate, also wish to link NIP action plans and strategies with existing country programmes on sustainable development, in particular, programmes on chemicals management, integrated pest and disease management, environmentally sound waste management, and industrial pollution control.

As each action plan/strategy is developed, it will be useful to consider the administrative requirements for implementation of the Convention, addressing mechanisms for adoption into local law, secretariat functions and responsibilities, and any assignment of responsibilities for implementation. Note should be taken of any institutional and regulatory strengthening measures required (drawing on the findings of the background work and action plan development). It will also be important to identify requirements for exemptions as well as a mechanism to ensure exemptions are updated as needed. Lastly, consideration should also be given to identifying (and applying) suitable measures of performance – or indicators – to be used to determine the effectiveness of the actions taken so that these can be included in the NIP.

Regarding NIP review and updating, the COP, at its first meeting, adopted guidance that identifies changes in obligations arising from amendments to the Convention or its annexes, including the addition of chemicals to Annexes A, B, or C as an external factor that triggers the need for a Party to review and update its NIP (also see section 3.2).

Therefore, when reviewing and updating their NIP, Parties should take into account the need to implement the following measures with respect to newly listed POPs:

- Develop and implement action plans for unintentionally produced chemicals (Article 5).

- Develop and implement strategies for identifying stockpiles, products and article in use, and wastes with POPs (Article 6).
- Implement control measures to reduce or eliminate releases from intentional production and use (Articles 3 and 4).
- Include the new chemicals in the programme for the effectiveness evaluation (Article 16).
- Include the new chemicals in the reporting (Article 15).

Each section of the initial NIP or last updated version should be reviewed to identify areas that will need to be updated. Some areas may require minor updates only; for example, the country profile section may have changed only slightly since the NIP was first drafted/last updated. The sections on the assessment of the POPs issue in the country will need to be updated to reflect the findings obtained in phases II and III during the NIP review and updating process. It may be helpful to consider each of the new POPs and develop action plans for implementing management options under consideration. This approach will also allow the identification of areas where assistance is required for conducting additional assessments to complete and implement the NIP. Whenever possible, action plans for new POPs should establish linkages and synergies with activities that are contained in the initial/last updated NIP, making sure to avoid duplication of efforts.

NIP development, review, and updating – specific action plans and elements

POPs pesticides: In developing an action plan for POPs pesticides, the IOMC document [Reducing and Eliminating the use of Persistent Organic Pesticides: Guidance on alternative strategies for sustainable pest and vector management](#) (IOMC, 2002) and the FAO document [International Code of Conduct on the Distribution and Use of Pesticides](#) (FAO, 2003) may be useful in integrating measures on POPs pesticides with broader objectives of sustainable crop management. The FAO series of documents and guidelines⁷ related to the sound management of pesticides as well as obsolete stocks can provide a framework for addressing stockpiles and working to ensure that problems do not recur. Work in this area should be linked to and coordinated with the part of the NIP addressing POPs as wastes.

DDT: Countries that are using or may need to use DDT are encouraged to develop and implement action plans specifically addressing the elements listed in Part II of Annex B of the Convention. Account should be taken of the guidance referred to above as well as specific WHO recommendations and guidance on DDT use, including the documents [The Use of DDT in Malaria Vector Control: WHO position statement on DDT, WHO/HTM/GMP/2011](#) (WHO, 2011) and [Manual for Indoor Residual Spraying: Application of Residual Sprays for Vector Control – Third edition, WHO/CDS/NTD/WHOPES/GCDPP/2007.3](#) (WHO, 2011).

PCBs: It will be necessary to propose options for the management of PCBs to meet the obligations of the Convention (in particular, see Annex A, Part II of the Convention) as well as earlier elimination and phase-out of PCBs and identify constraints, costs, benefits, and potential risks of the different options (e.g. availability of disposal and related costs, equipment replacement costs, availability of alternatives, assessment of potential environmental contamination from leakage, identification of sensitive areas). An action plan for PCBs should be developed/updated building on the findings of the preliminary assessment on PCB uses and addressing the need to identify and remove from use PCB-containing equipment as detailed in the Convention. In addition, these activities should promote measures to reduce exposure and risk. Measures for PCB disposal and handling of waste PCBs should be linked to strategies on stockpiles and wastes, and to the Basel Convention where appropriate.

HexaBDE and heptaBDE, tetraBDE and pentaBDE (POP-PBDEs): In accordance with Annex A, Part IV and Part V of the Convention, registered Parties are allowed to use recycled articles that contain or may contain hexabromodiphenyl ether and heptabromodiphenyl ether (hexaBDE and heptaBDE) and tetrabromodiphenyl ether and pentabromodiphenyl ether (tetraBDE and pentaBDE), respectively. Action plans should address the need to identify articles containing these chemicals and their presence in the recycling and waste streams.

If appropriate technology is not available in the country, accessing such technology can be included as an area in which assistance is required for NIP implementation. The listed POP-PBDEs have been widely used in manufacturing electrical and electronic equipment. Parties should therefore consider coordinating their actions on POP-PBDEs with their programmes on the management of electronic wastes. In developing action plans, Parties may wish to consider the recommendations of the POPRC on the elimination of POP-PBDEs from the waste stream. The [POP-PBDEs BAT/BEP Guidelines](#) (Secretariat of the Stockholm Convention, 2017) may also assist in developing/updating the action plan.

HBB: Due to the early and relatively small production and use of HBB, the chemical is of minor relevance for the inventory process and action plan development since most HBB-containing materials have already been disposed of decades ago. This minor relevance is also reflected in the low HBB/PBB levels in food and the related low exposure,

⁷ <http://www.fao.org/agriculture/crops/obsolete-pesticides/resources0/zh/>

e.g. in European countries (having used PBB to some extent in the past) HBB/PBBs were mostly below detection levels in food (EFSA, 2010).

PFOS, its salts and PFOS-F: Annex B, Part III, of the Convention addresses specific requirements for perfluorooctane sulfonic acid (PFOS), its salts, and perfluorooctane sulfonyl fluoride (PFOS-F). Action plans should be developed building on the preliminary inventory of PFOS uses and acceptable purposes and specific exemptions for the production and use of PFOS for which a Party has registered.

Parties should take into account the [evaluation by the COP in 2015](#), on the continued need for these chemicals for the various acceptable purposes and specific exemptions (Decision SC-7/5). It is therefore important to propose, when possible, strategies towards the elimination of PFOS, its salts and PFOS-F, including action plans for evaluating and phasing in the use of alternatives to these chemicals. In considering alternatives, [the consolidated guidance on alternatives to PFOS \(2016\)](#) may be useful, as well as other guidance to assess alternatives to PFOS in open applications being developed by the POPRC. In developing action plans, Parties may wish to consider the recommendations of the POPRC on risk reduction for PFOS, its salts, and PFOS-F. The [PFOS BAT/BEP Guidelines](#) (Secretariat of the Stockholm Convention, 2015) may also assist in developing/updating the action plan.

Endosulfan: Annex A, Part I of the Convention addresses specific exemptions for production of endosulfan as allowed for the parties listed in the Register of Specific Exemptions and/or for use on crop-pest complexes as listed in accordance with the provisions of Annex A, Part VI. Action plans should address, where relevant, cancelling registration of endosulfan for pesticide, enforcing a production ban, enforcing an import/export (illegal trade) and use ban for non-registered use, eliminating registered use, managing stockpiles and wastes in an environmentally sound manner, and cleaning up contaminated sites.

PCP and its salts and esters: Annex A, Part I of the Convention addresses specific exemptions for production of PCP as allowed for the parties listed in the Register of Specific Exemptions for use in utility poles and cross-arms complexes as listed in accordance with the provisions of Annex A, Part VIII. Action plans should address, where relevant, cancelling registration of PCP for pesticide use, enforcing a production ban, enforcing an import/export (illegal trade) and use ban for non-registered use, eliminating registered use, managing stockpiles and wastes in an environmentally sound manner, and cleaning up contaminated sites. Parties shall also take measures to ensure that utility poles and cross-arms containing PCP can be easily identified by labelling or other means throughout their life cycles. Articles treated with PCP should not be reused for purposes other than those exempted.

HBCD: Annex A, part VII of the Convention addresses specific exemptions for production of HBCD as allowed for the Parties listed in the Register for Specific Exemptions for use in expanded polystyrene and extruded polystyrene in buildings in accordance with the provisions of Annex A. Action plans should be developed to prepare a preliminary inventory of HBCD and to address, where appropriate, specific exemptions for the production and use of HBCD for which the Party has registered.

HCBD: Listed in Annex A, part I of the Convention without specific exemptions This chemical is not known to be currently intentionally produced or used and therefore of minor relevance for the inventory process and action plan development. All applications seemed to have ceased, which indicates that substitution has taken place and that alternatives are available and in use (POPRC, 2013). Control measures targeting unintentional production as an unwanted waste by-product should be addressed by BAT/BET practices and relevant guidelines for POPs wastes under the Basel Convention.

PCNs: According to the POPRC (2013), intentional production of PCNs is assumed to have ended, and releases of PCNs can be expected to be mostly from past uses and products not yet disposed, and from thermal processes namely waste incineration and PCB containing devices still in use. As listed in Annex A of the Stockholm Convention, with specific exemptions for production and use as intermediates in the production of polyfluorinated naphthalenes, including octafluoronaphthalene, action plans should be developed to prepare a preliminary inventory of these group of substances and to address, where appropriate, specific exemptions for the production and use for which the Party has registered.

Unintentional production: A specific action plan for POPs releases from unintentional production should be developed in accordance with Article 5 of the Convention. This can be developed, as appropriate, on a national, subregional or regional level. The action plan should address the need to evaluate and update emission estimates, building on the UNEP inventory toolkit, and should be integrated with other national activities on inventories or pollutant release registries (e.g. pollutant release and transfer registers (PRTRs)). It should also have specific activities to promote related education, training, and awareness of the action plan measures and a mechanism for evaluation of their effectiveness. Actions on the use of best available techniques (BAT) and best environmental practices (BEP) to reduce releases from unintentional production in accordance with the Convention may be assisted by the [Guidelines on best available techniques and provisional guidance on best environmental practices relevant to](#)

[Article 5 and Annex C](#) (Secretariat of the Stockholm Convention, 2008). Such guidance could build upon the principles outlined in Part V of Annex C to the Convention.

Regarding NIP review and updating to address the 2009 and 2015 Convention amendments, the action plan on measures to reduce or eliminate releases from unintentional production in the initial or last updated NIP should be updated to address pentachlorobenzene (PeCB) and polychlorinated naphthalenes (PCNs). Parties should include elements to measure or estimate releases of PeCB and PCNs from source categories, such as those identified in Parts II and III of Annex C, and to prevent such releases.

According to the POPRC, for PeCB formed as unintentional by-products in combustion processes, there is a clear relation to HCB and PCDD/F releases such that most measures taken to reduce PCDD/F releases will lead to significant reduction of PeCB releases. For PeCB formed from diffuse sources, such as barrel burning of household wastes and degradation of quinzoline, abatement strategies may not be effective and release reduction measures might be obtained by legislation and/or providing information and education of stakeholders.

Regarding PCNs, also listed in Annex C of the Stockholm Convention, the POPRC identified that this group of substances are unintentionally generated with similar mechanisms as PCDD/F during other industrial processes and therefore should be subject to the measures under Article 5 of the Convention. Control measures should establish the goal of continuing minimization, and where feasible, ultimate elimination of unintentional releases of PCNs.

The following documents may assist in developing/updating the action plan: Guidance on Action Plan Development for Sound Chemicals Management (UNITAR, 2009), annexed to [Guidance on Calculation of Action Plan Costs for Specific Persistent Organic Pollutants](#) (Secretariat of the Stockholm Convention, 2012); the [Toolkit for Identification and Quantification of Releases of Dioxins, Furans and Other Unintentional POPs](#) (Secretariat of the Stockholm Convention (2013); and [Guidelines on best available techniques and provisional guidance on best environmental practices relevant to Article 5 and Annex C](#) (Secretariat of the Stockholm Convention, 2008).

Stockpiles and wastes: It will be necessary to develop strategies for reducing or eliminating releases from stockpiles and wastes in accordance with Article 6 of the Convention, coordinating the actions and measures with action plans for each of the groups of POPs. Countries should consider coordinating their actions on POPs with their wider programmes and initiatives on the management of hazardous chemicals and hazardous wastes. Guidance on management of stores and stockpiles is available in the FAO series on obsolete pesticides described above. Guidance on POPs as wastes is also available, including [Technical guidelines for the environmentally sound management of wastes consisting of, containing or contaminated with polychlorinated biphenyls \(PCBs\), polychlorinated terphenyls \(PCTs\) or polybrominated biphenyls \(PBBs\), including HBB](#) (Secretariat of the Basel Convention, 2015). Other relevant guidance and training manuals as well as more general [guidelines](#) on the management of hazardous wastes are provided on the Basel Convention website (<http://www.basel.int/>).

It will also be necessary to develop appropriate strategies for identifying and managing sites contaminated by POPs in accordance with Article 6 of the Convention. Some information to help identify sites contaminated by PCDD/PCDF is included in the inventory toolkit. Guidance on assessing and managing sites contaminated by pesticides is available in [Assessing soil contamination: A reference manual](#) (FAO, 2002).

Information exchange: Countries must also plan for, facilitate or continue ongoing information exchange with other Parties to the Convention (as described in Article 9 of the Convention). Relevant guidance may be found in [Information Exchange for Sound Chemicals Management](#) (UNITAR, 2001).

Public information, awareness and education: Each Party should, within its capabilities, also promote and facilitate public information, awareness raising, and education in accordance with Article 10 of the Convention.

Research, development and monitoring: Parties should also, within their capabilities, encourage and/or undertake appropriate research, development, monitoring and cooperation pertaining to POPs and formulate a reporting mechanism to evaluate progress and produce reports in accordance with Convention requirements.

Drafting of the NIP

Each Party should develop a detailed “road map” to show what measures will be required, what actors are needed, and what resources are necessary. The roles and responsibilities of key actors should be detailed, along with a mechanism for implementation. The role and inputs required of international organizations and financial and technical resources required should also be detailed. A logical framework matrix may be useful here to show clearly what steps must be taken and what actions and resources are needed to make them possible.

When drafting the NIP, the [outline](#) of recommended NIP elements provided in annex 10 of this document can be used as a guide to the areas that might be included. Also see Guidance on Action Plan Development for Sound Chemicals Management (UNITAR, 2009), annexed to [Guidance on Calculation of Action Plan Costs for Specific](#)

[Persistent Organic Pollutants](#) (Secretariat of the Stockholm Convention, 2012). The detail in any section will depend on the situation in each country, priorities set, country objectives, and scale of actions required to meet Convention obligations. For example, where chemicals are known for certain not to have been used historically or currently and where legislation that is enforced already exists to meet the requirements of the Convention, great detail would not be needed in the NIP.

Needs for assistance

It will be necessary to clearly identify those areas that may be a priority for assistance during implementation of the NIP. When appropriate, provide as much detail on the nature of the assistance required, the objectives that will be met, and the needs that are to be addressed with indications of the costs, resources, and expected outcomes. These might range from information needs, human and financial resources, training, and assessment through to investment projects. Any identified investment projects should be fully evaluated and assessed in conjunction with potential donors in accordance with good practice. Countries should identify those areas where they are making resources available for co-financing of activities. Identifying funding needed to implement the Convention is an important aspect for developing country Parties and Parties with economies in transition. On a periodical basis, the COP undertakes an assessment of such needs and invites Parties to report them using a specific format.⁸

When conducting a needs assessment exercise, countries could make use of a situation and problem analysis as a basis to identify the existing policy and management framework for POPs. A problem analysis is expected to facilitate the formulation of requirements based on data collected from the situation analysis phase. The needs assessment phase should look into policy needs, institutional framework, managerial needs and human, financial and technical resources required to effectively implement action plans for POPs management. [Capacity and needs assessment guidance for chemicals management](#) has been made available by the IOMC and may be used as reference when preparing a POPs needs assessment strategy.

8.5 Method and approach

Developing action plans, identifying and evaluating options, and drafting the NIP would be the responsibility of the task teams and individuals from the PCU, drawing on and supplemented by external expertise from within the country and, if required, from outside. Careful coordination would be required for common areas such as the legal and enforcement mechanism, import and export issues, and the identification, classification, and management of wastes.

8.6 Available guidance documents

- [Technical Workbook on Environmental Management Tools for Decision Analysis, International Environmental Technology Centre, Technical Publication Series 14](#) (UNEP, 1999)
- [Chemicals and Wastes Conventions](#) (UNEP, 2016)
- [Reducing and Eliminating the use of Persistent Organic Pesticides: Guidance on alternative strategies for sustainable pest and vector management](#) (IOMC, 2002)
- [Information and programmes on obsolete pesticides:](#)
http://www.fao.org/WAICENT/FAOINFO/AGRICULT/AGP/AGPP/Pesticid/Disposal/guides_en.htm
- [Assessing soil contamination: A reference manual](#) (FAO, 2002)
- [Guide on the Development of National Laws to Implement the Rotterdam Convention Secretariat of the Rotterdam Convention](#) (September 2004)
- UNITAR guides on PRTRs – covering principles and practical aspects of PRTR systems can be looked at the [Capacity Building Library](#), which includes a compilation of Resource Documents (UNITAR, 1997)
- [Resource Compendium of PRTR Release Estimation Techniques](#), (OECD, 2003-17)
- [PCB Transformers and Capacitors – From Management to Reclassification and Disposal](#) (UNEP, 2002)
- [PCBs. A Compilation of Information Derived from HELCOM Recommendations, EU-Directives, UN-ECE-LRTAP, UNEP and OSPAR, and Analysis of Appropriate Measures Aiming at Safe Handling and Reduction of Releases of PCB from PCB-Containing Equipment in Use](#) (HELCOM, 2001)
- [PCBs. A Compilation and Evaluation of the Information Given by the Contracting Parties with the Focus on Legislative](#)

⁸ The adopted format is available in Annex 11 and further information on needs assessment can be found on www.pops.int.

[Situation, Current Uses, Stockpiles and Releases](#) (HELCOM, 2001)

- [Technical guidelines for the environmentally sound management of wastes consisting of, containing or contaminated with polychlorinated biphenyls \(PCBs\), polychlorinated terphenyls \(PCTs\) or polybrominated biphenyls \(PBBs\), including HBB](#) (Secretariat of the Basel Convention, 2015)
- [Destruction and Decontamination Technologies for PCBs and Other POPs Wastes Under the Basel Convention: A Training Manual for Hazardous Waste Project Managers](#) (Secretariat of the Basel Convention, 2002)
- [Preparation of a National Environmentally Sound Management Plan for PCBs and PCB-Contaminated Equipment in the Context of the Implementation of the Basel Convention: Training Manual](#) (Secretariat of the Basel Convention, 2003)
- [Technical guidelines for the environmentally sound management of wastes consisting of, containing or contaminated with 1,1,1 trichloro 2,2 bis\(4 chlorophenyl\)ethane \(DDT\)](#) (Secretariat of the Basel Convention, 2006)
- [Technical guidelines on the environmentally sound management of wastes containing or contaminated with unintentionally produced PCDD, PCDF, HCB, PCB or PeCB](#) (Secretariat of the Basel Convention, 2015)
- [Technical guidelines on the environmentally sound management of wastes consisting of, containing or contaminated with the pesticides aldrin, alfa hexachlorocyclohexane, beta hexachlorocyclohexane, chlordane, chlordane, dieldrin, endrin, heptachlor, hexachlorobenzene \(HCB\), lindane, mirex, pentachlorobenzene, perfluorooctane sulfonic acid, technical endosulfan and its related isomers or toxaphene or with hexachlorobenzene as an industrial chemical](#) (Secretariat of the Basel Convention, 2015)
- [Guidance on Calculation of Action Plan Costs for Specific Persistent Organic](#) Pollutants (Secretariat of the Stockholm Convention, 2012)
- [Synergies Success Stories Enhancing cooperation and coordination among the Basel, Rotterdam and Stockholm conventions](#) (UNDESA/Secretariat of the Basel, Rotterdam and Stockholm Conventions, 2011)
- [Action Plan for the Reduction of Reliance on DDT in Disease Vector Control](#) (WHO, 2001)
- [The Use of DDT in Malaria Vector Control: WHO position statement on DDT, WHO/HTM/GMP/2011](#) (WHO, 2011)
- [Manual for Indoor Residual Spraying: Application of Residual Sprays for Vector Control – Third edition, WHO/CDS/NTD/WHOPES/GCDPP/2007.3](#) (WHO, 2011)
- [Guidelines on Best Available Techniques and Best Environmental Practices for Use of Perfluorooctane Sulfonic Acid \(PFOS\) and related Chemicals listed under the Stockholm Convention on POPs](#) (Secretariat of the Stockholm Convention, 2015)
- [Guidelines on the Best Available Techniques \(BAT\) and Best Environmental Practices \(BEP\) for the Recycling and Waste Disposal of Articles containing Polybrominated Diphenyl Ethers \(PBDEs\) listed under the Stockholm Convention on POPs](#) (Secretariat of the Stockholm Convention, 2015)
- [Guidance for the Control of the Import and Export of POPs](#) (Secretariat of the Stockholm Convention, 2012)
- [Guidance for Strengthening the Regulatory Framework to Enable Regular Monitoring of Products and Articles that may Contain New POPs](#) (Secretariat of the Stockholm Convention, 2012)
- [Labelling of Products or Articles that Contain POPs – initial considerations](#) (Secretariat of the Stockholm Convention, 2012)
- Developing a Capacity Assessment for the Sound Management of Chemicals and National SAICM Implementation-Guidance Document. (IOMC, 2007)

9. Phase V – NIP Endorsement and Submission

9.1 Objectives

- To communicate clearly the scope, need for, purpose, and value of the NIP.
- To consult with all stakeholders on the proposed NIP, as appropriate.
- To finalize the NIP, taking account of stakeholder input.
- To secure political support and endorsement by the relevant authorities for the NIP and its implementation.
- To transmit an agreed NIP to the COP of the Convention within two years of entry into force of the Convention for the

Party, or when the review and updating of a NIP has been undertaken in order to comply with changes in the obligations under the Convention occasioned by amendments to the Convention or its annexes, transmit an agreed revised and updated NIP to the COP within two years of the entry into force for that Party of the amendment.

- To establish and put into practice a mechanism for periodic updating and review of the NIP in accordance with Article 7 of the Convention.
- To establish a mechanism for reporting to the COP as required.
- To put in place the mechanism for implementation of the NIP.

9.2 Outputs and outcomes

- Nationally accepted NIP (with means to review, update, and report built in) completed and transmitted to the COP as required.
- Mechanism in place to carry forward implementation of the NIP.

9.3 Primary responsibility

The PCU, NCC, and politicians and officials with responsibility for international legal agreements and national environmental policy and sustainable development have the primary responsibility for this phase. Relevant authorities will need to endorse the final version of the NIP transmitted to the COP.

9.4 Tasks

- Produce suitable communication materials to convey the contents, intentions, and need for and benefits of the NIP for stakeholders.
- Establish a consultation system, with suitable commentary and explanation if necessary, to ensure that stakeholders within and outside Government are made aware of the NIP and that feedback is gathered and collated for assessment.
- Review the feedback from the consultation and adapt the NIP as appropriate.
- Ensure that the NIP includes mechanisms for periodic review and updating as needed and appropriate in accordance with Article 7 of the Convention.
- Submit the revised NIP to those who must endorse it and commit to its implementation (Government ministers, heads of departments, etc).
- Design and set up a mechanism and structure for implementation of the NIP.
- Submit the NIP to the COP as required.

9.5 Method and approach

- The PCU, with guidance from the NCC, should identify a mechanism to be used for consultation on the NIP and draft suitable background information to accompany the NIP to explain the reason for its development, its aims and implications, and the process of gathering feedback on the NIP.
- The PCU should carry out the consultation as agreed and gather and assess any resulting feedback.
- The PCU should amend the NIP, taking account of feedback where necessary, and present the revised NIP to the NCC.
- The PCU and NCC would agree a mechanism to secure the necessary endorsement for the NIP and measures needed to implement it. After the necessary endorsement, the PCU would ensure that the NIP is transmitted to the COP as required.
- The NIP must be transmitted through the Official Contact or through the country's ministry of foreign affairs with covering letter addressed to the head of the Secretariat.

9.6 Available guidance documents

No specific guidance, beyond information regarding stakeholder interaction previously noted, was identified for this phase of the work.

Annex 1: National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants – Suggested Model for Implementation Arrangements and Terms of Reference

Implementation arrangements

National lead agency

The national Government will appoint a national lead agency (NLA) and a national project director (NPD), who should be a high-level official of the NLA (e.g. minister, secretary, or general director). The NPD will be the certifying officer for the purpose of reporting on the progress of the NIP project to the GEF executing agency, where applicable. The NLA will be the legal entity responsible for executing the project. The NLA will establish a national coordination committee (NCC) and a project coordination unit (PCU) and will appoint a national project coordinator (NPC), whose selection should be discussed with the GEF executing agency, where applicable, and be endorsed by the PCU or the NCC, as appropriate. The NLA should provide the necessary scientific, technical, and administrative support to the work of the PCU, working in close cooperation with relevant Government agencies, the scientific community, and the public and private sectors. It should ensure that all documentation deriving from the project is consistent with the objectives.

National project coordinator

The NPC will act as secretary to the NCC and oversee overall project execution and coordination with the GEF executing agency, where applicable (also see suggested terms of reference below). He or she will be responsible for achievement of the objectives and outputs of the project, including NIP preparation.

The NPC will be responsible for setting up a project team and organizing the work of the PCU. The core of the project team will consist of the NPC and a project assistant, one to three national technical experts, and a financial officer. One or more international technical experts will assist the national project team. The technical experts will be responsible for the validity of technical reports and documents and for all technical work done for the project. The project team will be responsible for setting up task teams to fulfil specific project activities. The members of the project team and the task teams will be subject to approval by the PCU or the NCC. It is expected that country-based activities will be executed in a decentralized manner, with various governmental and/or non-governmental agencies being responsible for executing activities in their areas of expertise (e.g. the ministry of agriculture might be responsible for the pesticides inventory).

National coordinating committee

The NCC will oversee the project. In general, the NCC will facilitate coordination of project activities among national stakeholders, will be responsible for policy input, and will provide guidance and support for the execution of the project and to the NLA and NPC. Functional guidance will be provided, for example, through the review of regular reports and monitoring and evaluation activities. Individual members may be responsible for overseeing specific components of NIP development, review, or updating. Collectively, the NCC will contribute to final reviews of the NIP. It will also play an important role in further resource mobilization for the implementation of project results.

More specifically, the NCC will:

- Endorse the detailed work plan and schedule for the NIP development, review, or updating.
- Identify and recommend public information and awareness raising activities.
- Review and comment on sectoral task teams' composition and work plans.
- Recommend the elaboration and updating of supporting documents and efforts, such as the National Profile and necessary improvements to the current regulations to accord with the NIP.
- Review and comment on project reports, including action plans and strategy documents.
- Ensure that cross-sectoral issues are adequately tackled by sectoral working groups.

It is proposed that an already existing inter-sectoral committee, dealing with chemicals management issues, could form the core of the NCC, supplemented by representatives from other POPs-relevant institutions. The members of the NCC will be nominated by the respective institutions and appointed by the NLA. The NPD or a senior official of one of the member institutions will chair the NCC. The NCC may comprise up to 15 members including the main

actors in Government (ministries of environment, industry, agriculture, health, labour, and others as appropriate) and, as deemed necessary, representatives of industry and the civil society (environmental NGOs, academia, trade unions, etc.). (Also see “Potential stakeholders or information sources regarding the new POPs” below.) The NCC will hold regular quarterly meetings and extraordinary meetings will be convened whenever called for by the agreed quorum. A quorum shall be formed by 50 per cent of the membership.

Some countries may decide to have an NCC with executive functions and hence composed of only Government agencies. In such cases, it will be advisable to have a broader multi-stakeholder committee in order to provide a forum for representatives of non-governmental organizations, the labour sector, academia, research institutions, and industry organizations for becoming informed about, reviewing, and providing input to the NIP development, review, and updating process.

Potential stakeholders or information sources regarding the new POPs

The participation of key stakeholders in the consultation process is essential for obtaining reliable results. It is therefore important for tasks teams to identify those groups and individuals that hold realistic information on the new POPs. The inclusion of these stakeholders in the NCC will be useful in obtaining their commitment to Phase II of the NIP process. The table below provides information on potential stakeholders that may hold valuable information on new POPs.

Chemical	Potential stakeholders or information sources
Alpha hexachlorocyclohexane; Beta hexachlorocyclohexane; Chloredecone; Endosulfan Lindane; Pentachlorophenol and its salts and esters	Pesticides manufacturers, importers and distributors; pesticide registration agencies; farmers associations; pharmaceutical manufacturers, distributors and retailers (for lindane); drug licensing and administration agencies (for lindane).
Hexabromobiphenyl; Hexabromodiphenyl ether and heptabromodiphenyl ether; Tetrabromodiphenyl ether and pentabromodiphenyl ether; Hexabromocyclododecane	Plastics industry; electrical and electronic equipment industry; furniture, textiles and packaging material industry; automotive industry; construction industry; industry for the recycling of electrical and electronic equipment, plastics and PUR foam.
Hexachlorobutadiene	The most important known source of hexachlorobutadiene is due to the manufacture of chlorinated chemicals, followed by urban waste-water treatment plants. Parties are encouraged to identify relevant stakeholders from those specific sectors.
Pentachlorobenzene	Manufacturers and users of pentachloronitrobenzene (quintozone) (Pentachlorobenzene is also listed under Annex C of the Stockholm Convention; Parties are required to identify and address releases from unintentional sources. These include incineration of waste, barrel burning of household waste, waste streams from pulp and paper mills, iron and steel mills, petroleum refineries and activated sludge from wastewater treatment facilities.)
Perfluorooctane sulfonic acid, its salts a and perfluorooctane sulfonyl fluoride	Sectors related to the following applications: Fire fighting foams, carpets, leather/apparel, textiles/upholstery, paper and packaging, coatings and coating additives, industrial and household cleaning products, floor polishes, denture cleanser, shampoos, industrial and household cleaning products, hydraulic fluids, anti-erosion additives, anti-reflective coatings, surfactants, photography, photolithography, photomicroolithography, adhesion control, metal plating and termite and ant bait.
Polychlorinated naphthalenes	Manufacturers of polyfluorinated naphthalenes. Polychlorinated naphthalenes are also listed under Annex C of the Stockholm Convention; Parties are required to identify and address releases from unintentional sources. These include high-temperature industrial processes in the presence of chlorine and combustion (mainly waste incineration)

GEF executing agency

For countries developing, reviewing, or updating a NIP with the financial support of the GEF and the assistance of a GEF executing agency, the GEF executing agency can provide support to the NLA as needed during project implementation. In GEF-5, all eligible parties will have direct access to GEF resources to finance activities related to the review and updating of their NIPs to include the new POPs added to the Stockholm Convention at COP-4 as per their obligations under Article 7 of the Convention.

Thematic task teams

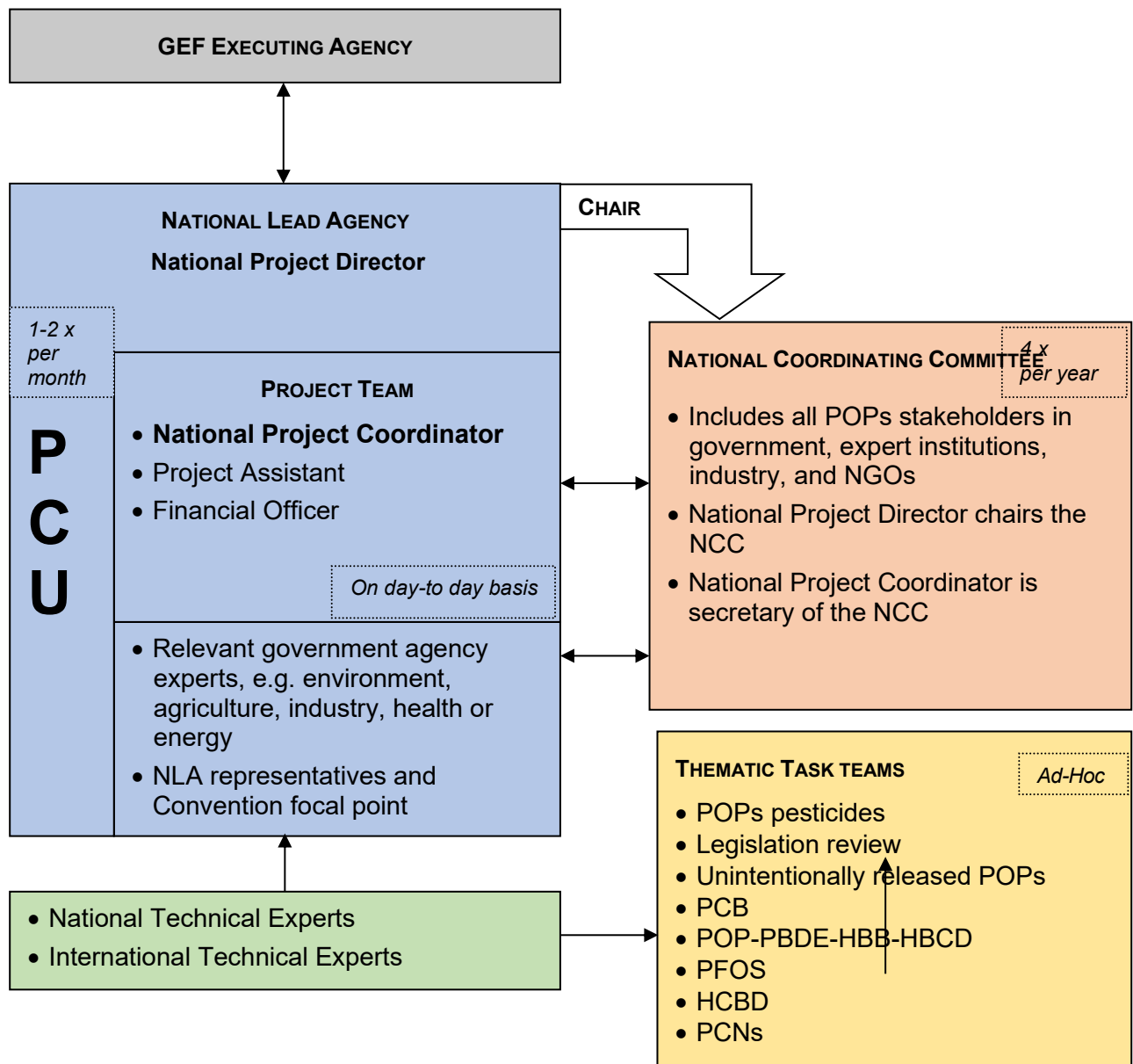
The task teams, led by a local technical expert with the possible assistance of international experts, will oversee the detailed gathering of information and consideration of issues for the development, review, or updating of the NIP that relates to their specific task. This will be accomplished through a number of key activities including, inter alia:

- Development of a workplan and budget (including expected outcomes, resources required, and monitoring procedures) for the duration of their tasks.
- A review of the provisions of the Stockholm Convention relevant to the chemicals being examined.
- Gathering of baseline national-level information (i.e. a subject-specific situation analysis) on the production (intentional or unintentional), use, presence in the environment or humans, and disposal of the chemicals being addressed.
- Input of the baseline information mentioned above into the elaboration and updating process for the National Profile, where applicable.
- Consideration of relevant guidance and expertise available from IOMC organizations, and others, where available.
- Developing national-level action plans within a systematic framework through the consideration of the relevant goals set out by the Stockholm Convention for the chemicals, and consideration of key objectives and priority activities that can assist in reaching the goals.

In support of capacity-building, the task teams will be composed whenever possible of existing specialized institutions and agencies already appointed by relevant ministries to perform specific tasks. Representatives of academia and various other sectors of industry that use, distribute, and dispose of POPs may also be involved.

The NPC will coordinate the work of the task teams.

Possible project management structure



Suggested terms of reference: National project coordinator

Background

Parties to the Stockholm Convention are required to develop, review, and update NIPs describing how they will meet the obligations set by the Convention. Developing countries and countries with economies in transition are eligible for GEF capacity-building support for enabling activities to strengthen their ability to implement a systematic and participatory process for the preparation and production of NIPs.

A PCU will be established in each of the countries and, under the leadership of an NPD and NPC, will be responsible for managing the project on a day-to-day basis and for ensuring achievement of project objectives and outputs, including the production, review, or updating of a NIP.

Principal responsibilities

Under the responsibility of the NPD (see the section on “Implementation arrangements” at the beginning of this annex for details), the NPC has the following principal responsibilities:

- To lead and coordinate the day-to-day management of the project and the project staff, including administration of the project in conjunction with the relevant GEF executing agency¹¹ procedures, where applicable.
- To lead the development of the detailed project design, in collaboration with the concerned technical experts and in consultation with the NCC. This includes the production of a work plan; preparation of the terms of reference for international and national experts recruited under the project and drafting of contracts for experts; preparation of technical specifications for equipment purchased under the project; cost estimation; activity scheduling; and reporting on the forward planning of project activities and budget expenditures.
- To be fully aware of and familiar with all financial and technical rules, regulations, and procedures relevant to project implementation (both GEF executing agency, where applicable, and national). The NPC will also be responsible for ensuring that project staff (and other relevant staff of participating organizations) are aware and familiar with these rules, regulations, and procedures, and with their application.
- To ensure the implementation of activities stipulated in the work plan such as workshops, capacity assessments, training, environmental appraisals, and inventories.
- To coordinate, monitor, and supervise the activities of consultants and short-term experts providing input to the project, including supervision of the implementation of the activities undertaken by consultants and experts; logistics; review of technical and progress reports; achievement of project outputs and objectives; and cost control.
- To liaise with the GEF executing agency, where applicable, to obtain the assistance needed during project implementation, which may include technical directives for project activities or assistance in identifying and engaging experts.
- To liaise regularly with the NCC and the project team and to ensure that the decisions and recommendations of the NCC and the opinions of the project team are fully incorporated within the scope of the project’s implementation.
- To ensure that all national stakeholders are identified and are adequately informed of and involved in the project.

Duration

The appointment of the NPC will be for the full duration of the project.

Qualifications and experience

The NPC should preferably possess the following or broadly equivalent experience:

- Advanced university degree in natural sciences, environmental sciences, engineering, or economics.
- Minimum of 6-10 years of professional experience in the field of chemicals management.
- Experience with the design and implementation of environmental programmes and projects, including the writing of environmental management plans.

¹¹ UNEP, UNDP, the World Bank and, for the purpose of enabling activities under the Stockholm Convention, also UNIDO, FAO, and WHO.

- Good communication and management skills.
- Computer skills.
- Language skill is an additional asset.

Reporting requirements

The NPC should work under the supervision of and report to the NPD. He should regularly report to the NCC on the plans, progress, and technical reports of the project.

The NPC should submit quarterly financial and progress reports to the GEF executing agency, where applicable, including details on any problems encountered or foreseen and the proposed solutions to these problems. Deviations from the foreseen timetable for implementation should also be reported. The members of the NCC may also be provided with copies of the progress reports for information.

Suggested terms of reference: National technical expert

Principal responsibilities

A national technical expert (NTE) will work under the responsibility of the NPC, executing the following project activities and responsibilities needed to produce a specific output (as identified in the project document).

- The NTE will be responsible for the following fields of expertise:
 - Sound chemicals management activities.
 - Development of legislative, regulatory, and enforcement tools to ensure compliance with the Stockholm Convention.
 - Analysis and control of industrial pollution and releases.
 - BAT/BEP for POPs emission source categories.
 - BAT/BEP for the production and use of PFOS and related chemicals.
 - BAT/BEP for the recycling and disposal of articles containing POP-PBDEs.
 - Monitoring of POPs releases and presence in air, water, soils, and sediments.
 - Management of obsolete stocks and POPs-contaminated sites.
 - Socio-economic implications of POPs reduction and elimination.
 - Sampling and analytical methods of POPs in different media.
 - Monitoring of POPs residues in food and POPs human exposure.
 - Awareness raising and public involvement.
 - Environmentally sound disposal of POPs.
- The NTE may be requested to propose candidates for the task team and prepare the terms of reference for their positions.
- The NTE may organize and/or provide (with or without international technical expert assistance) training and guidance to the task team responsible for specific tasks.
- The NTE will be responsible for verifying the work of the various task teams, ensuring the technical validity of their work and products.
- The NTE will be responsible for compiling the products of the task team work and for producing (with or without international technical expert assistance) the final document as agreed with the NPC.
- The NTE will closely cooperate with an international technical expert (ITE) in his or her field of expertise and provide the ITE with necessary local support.

Duration

The appointment of the NTE will be for a given number of months, distributed according to his tasks throughout the whole duration of the project.

Qualifications and experience

Expertise and experience necessary for the tasks assigned, which might include or be equivalent to:

- Advanced university degree in a relevant field (natural sciences, environmental sciences, engineering, economics, or law).
- Minimum 6 years of professional experience.
- Experience in the design, implementation, and management of environmental programmes and projects, including the writing of environmental management plans.
- Experience in management and state administration.
- Good national legislative knowledge from relevant fields (environment, health protection, chemicals management, and industrial pollution).

- Good communication and training skills.
- Computer skills.
- Knowledge of one official United Nations language is required.

Suggested terms of reference: Project assistant***Principal responsibilities***

The project assistant will assist the NPC in the management of day-to-day activities, and will have the following responsibilities:

- To participate in day-to-day activities relating to project implementation and provide assistance to the NPC.
- To be responsible for daily communication with project partners and for daily tasks (such as organizing workshops/meetings/training, and preparation of background documents) that do not require the NPC's participation.
- To participate in project team and NCC meetings, prepare the minutes of the meetings and distribute them to participants, and to maintain the day-to-day records of project implementation.
- To maintain the project website.

Duration

The project assistant will be recruited for the full duration of the project.

Qualifications

The individual should have expertise or experience such as listed below or broadly equivalent.

- Minimum of 1 year experience assisting in project management.
- University degree in natural sciences, management, or economics.
- Experience with project implementation.
- Good communication and management skills.
- Computer skills.
- Language skill is an asset.

Suggested terms of reference: Financial officer***Principal responsibilities***

The financial officer will assist the NPC in the day-to-day running of all financial operations. Responsibilities include:

- Reporting on a weekly basis on the financial status of the project team.
- Timely paying invoices upon approval of the NPC.
- Invoicing external entities and controlling payments; alerting the NPC when problems appear.
- Preparing financial inputs for the quarterly reports of the NPC.
- Screening and compiling the financial documentation to be submitted on a monthly basis.
- Technical cooperation with banks (opening accounts, controlling, closing accounts).
- Managing the cash reserve of the project team.
- Assisting the NPC in auditing the project.
- Managing VAT recovery and preparing tax declarations.
- Managing the payroll of the project team.
- Cooperating on the preparation of the quarterly financial budgets.

Qualifications and experience

The individual should have qualifications or experience broadly equivalent to the list below:

- Experience in running financial operations listed in the principal responsibilities above.
- Professional degree in economics, accounting, or equivalent is an advantage.
- Familiarity with relevant legal regulations.
- Experience in work in international or foreign assistance programs will be a great advantage.
- Familiarity with relevant professional computer programs.
- Good interpersonal relations skills.

Duration

The financial officer will be recruited for the full duration of the project, but possibly on a part-time basis.

Reporting requirements

The financial officer will report directly to the NPC.

Suggested terms of reference: International consultants

Possible tasks

International consultants would contribute to capacity-building in countries by assisting country project teams in the execution of relevant activities, supporting technical work, and providing advice and necessary training in specified fields of expertise.

The specific tasks for international consultants would be decided on a case-by-case basis to meet project needs but might include technical assistance and technical advice in the following specified fields of expertise:

- Design of environmental programs and projects.
- Environmental appraisals and audits.
- Sound chemicals management, including POPs management in particular.
- Industrial pollution by POPs.
- BAT and BEP for POPs source categories.
- Environmentally sound management (ESM) of hazardous waste containing POPs.
- Environmentally sound POPs destruction and disposal.
- Remediation of POPs-contaminated sites.
- Evaluation of POPs health impact.
- Evaluation of POPs environmental impact.
- Evaluation of POPs socio-economic impact.
- Sampling and analyzing POPs.
- POPs emission inventories.
- POPs alternatives to be used for disease vector control.
- POPs alternatives in termite control.
- POPs alternatives in agricultural uses.
- POPs alternatives in industrial uses.
- Assessment of costs and cost-benefit analyses.
- Legislation and infrastructure.
- Enforcement and compliance.

More specifically and as appropriate, international experts may:

- Assist in the assessment of national institutional capacities for POPs management; national POPs legislative, regulatory, and enforcement capacities; national BAT and BEP capacities; national POPs socio-economic/health/environmental impacts; socio-economic implications of POPs reduction/elimination; and POPs monitoring and research and development capacity.
- Provide relevant training and advice to the task teams and review documents and reports they prepare.
- Assist in the development and review of national POPs inventories.
- Assist in development of criteria for prioritizing POPs and options for POPs reduction and elimination.
- Provide advice on identifying barriers to the phase-out, reduction, remediation, and disposal of POPs and actions to remove them; awareness raising and information exchange mechanisms; necessary capacity-building activities; technology and know-how transfer needs; and estimation of investment costs.
- Lead the work related to identification of NIP targets, timeframes, and indicators.
- Conduct the initial cost estimate for NIP execution.

Professional competencies and experience

International consultants should possess suitable experience and qualifications broadly equivalent to the following:

- Advanced degree in natural sciences, environmental sciences, engineering, chemicals legislation, or economics.
- Minimum 10-15 years of professional experience, preferably in the region.
- Understanding of legislation in the area of the environment and chemicals management relevant to the assignment.
- Good interpersonal and training skills.
- Very good written and spoken English and/or other United Nations languages (Arabic, Chinese, French, Russian, Spanish).
- Knowledge of POPs issues and of Stockholm Convention provisions.

Logistics and costs

The project location will be in the country developing, review, or updating the NIP, but it is expected that consultants will be in the country only for the time needed for the provision of their expertise. The project will cover travel costs in addition to consultancy fees.

Annex 2: Assessment of POPs Pesticides

Background

The convention initially listed 12 POPs, eight of which are pesticides. In 2009, 2011, 2013 and 2015 the COP adopted amendments to Annexes A, B, and C to the Stockholm Convention to list fourteen new POPs, seven of which are pesticides. The pesticides listed in the Convention are aldrin, alpha hexachlorocyclohexane, beta hexachlorocyclohexane, chlordane, chlordecone, DDT, dieldrin, technical endosulfan and its related isomers, endrin, heptachlor, lindane, mirex, pentachlorobenzene, pentachlorophenol and its salts and esters, and toxaphene. It is important to note that PFOS, its salts, and perfluorooctane sulfonyl fluoride (PFOSF) were listed in Annex B in the Stockholm Convention and that an acceptable purpose of this chemical is its use as insect baits for control of leaf-cutting ants from *Atta* spp. and *Acromyrmex* spp. and a specific use exemption is insecticides for control of red imported fire ants and termites. Such use of this POP should be addressed within the POPs pesticides assessment, so national authorities should be contacted to establish whether the sulfluramid or other insecticides containing PFOS or its related substances is registered in the country, and to reveal the total amount of insecticide if registered.

This annex addresses baseline data gathering and assessment of POPs pesticides. Particular care is required to address DDT due to its use for vector control, lindane for control of ecto-parasites in veterinary and human application, and endosulfan which exposure has been linked to congenital physical disorders, mental retardations, and deaths in farm workers and villagers in developing countries. In general, parties must develop appropriate strategies for identifying stockpiles, products and articles in use, and waste consisting of, containing or contaminated with a listed POPs pesticides. In particular, stockpiles and waste of alpha hexachlorocyclohexane, beta hexachlorocyclohexane as well as uses of hexachlorobenzene, and pentachlorobenzene (industrial as well as pesticide) should be properly addressed. Specialists with knowledge of each of these areas might be included in the task teams.

When reviewing and updating the NIP to address new obligations under the Convention, this assessment should address newly added POPs pesticides where applicable. Other relevant changes that may have occurred since the previous assessment, such as the implementation of action plans (e.g. changes regarding the production, import, and export of POPs pesticides, related changes in the legal framework and institutional infrastructure), should also be reflected in this assessment (as well as related action plans).

In addition, this assessment might provide an opportunity to address Article 15 of the Convention which requires each Party to report to the COP on the measures it has taken to implement the provisions of the Convention and on the effectiveness of such measures in meeting the objectives of the Convention.⁹ Information provided should contain statistical data on the production, import, and export of each of the chemicals listed in Annex A and B of the Convention, a list of countries from which it has imported or to which it has exported such substances, and details on measures to reduce or eliminated releases of chemicals listed in Annex C. An electronic system for reporting is available on the [Secretariat's website](#).

Objectives

The objectives of an assessment of POPs pesticides are:

- To review and summarize the production, use, import and export, disposal of the pesticides listed in Annexes A and B of the Convention.
- To gather information on stockpiles and wastes containing, or thought to contain, POPs pesticides.
- To assess the legal and institutional framework for control of the production, use, import, export and environmentally sound disposal of the pesticides listed in Annexes A and B of the Convention.
- To identify gaps in information required to complete the assessment.
- To help identifying suitable alternative products, methods and strategies to the POPs pesticides
- To determine need of exemptions and register for those POPs pesticides that exemptions are still allowed.
- To identify whether the current situation meets the requirements of the Stockholm Convention and detail areas where it does not.

⁹ At its first meeting, by decision SC-1/22, the Conference of the Parties established the periodicity of this reporting to be every four years and adopted a format for reporting.

Outputs and outcomes

- Report on historical and current production, import, export, use, stockpiles and waste disposal for POP pesticides.
- A detailed account of the legal, institutional, regulatory and enforcement systems for POPs pesticides.
- A detail account of the data gaps and deficiencies in the knowledge on POPs pesticides.
- Elements to develop an action plan to address pesticides in the context of the NIP.

Primary responsibility

It is likely that a thematic task team would be assigned the responsibility to carry out the assessment. This team would report back to the PCU as agreed.

The task team for this assignment should be made up of people in the country responsible for work on pesticides and/or any initiative to address the process of moving from a chemical-based approach to a more integrated pest management system and also any initiatives to improve chemicals management, pesticide registration, control, use, restriction, ban, and waste disposal.

It is particularly important that officials with responsibility for public health and vector control be included in the assessment of DDT. It is also important that links be made between the authorities responsible for vector control and those responsible for agricultural use of pesticides since DDT can become a valuable commodity for the agricultural sector and unauthorized “leakage” might occur from authorized use for vector control to other areas.

Similarly, officials with responsibility for public health and veterinary control need to be included in the lindane assessment. It is important to note that lindane can only be used as human health pharmaceutical for control of head lice and scabies as second line treatment and only if a country is registered. Emphasis to be placed on the management of lindane stocks due to potential leakage into the agricultural sector. Special note needs to be taken with respect to the alpha and beta isomers of hexachlorocyclohexane related to the identification of sites where it was produced during lindane production.

Experience from on-going programmes in identifying and dealing with obsolete stocks of pesticides should be used and built upon where possible.

Tasks

- Establish a mechanism for undertaking the assessment on POPs pesticides, develop a plan for the process to assign responsibilities, and set time lines.
- Review and summarize the existing legal and institutional framework that covers production, import, export, use, licensing, storage, handling, and disposal of pesticides, formulated products, containers, and residuals.
- Compare the legal framework to the requirements of the Stockholm Convention.
- Compare the existing system against the requirements of the Stockholm Convention and identify any deficiencies in policy, implementation, and enforcement.
- Carry out a preliminary inventory:
 - For each POPs pesticide, summarize information, to the extent possible, on production, import, export, uses in the country, presence in stockpiles, and data on wastes.
 - It is valuable to record the availability of data and effectiveness of relevant information systems and to make some assessment of the reliability and quality of the data. This can help to identify and classify gaps and needs for additional data gathering and generation.
 - The resulting information should show for each chemical whether it is now or was previously produced, imported, exported, and formulated in the country, and if so, where and in what quantities. It should also reveal any past or current uses and the characteristics of the use (i.e. the scale and nature of the operation – individual farmers, pattern of use for vector control or ectoparasites control, etc.), conditions of storage and handling for stockpiles and stores, and known or suspected presence in wastes or abandoned stores.
- When revising or updating the first NIP or last updated version, some of the tasks listed here might be reduced to only address the newly listed POPs pesticides, and only a revision of the current situation in relation to the original POPs pesticides might be needed.

Method and approach

- The inventory’s scope and related methodology should be clearly defined. A thorough discussion among stakeholders is

required to determine what exactly would be covered under the inventory.

- Different methodologies could be applied in collecting information/data on pesticides. Each one has its advantages and disadvantages. The following are some of the methods used in such data collection:
 - Desk study/literature survey of existing information: To initiate an inventory process, undertaking a desk study/literature survey is a good starting point. Information surveyed could include reports of surveys and inventories previously undertaken, such as registers; reports of ministry officials on routine inspections of pesticide stores; storekeepers' records/records of purchases; records of donations; reports from NGOs; reports from manufacturers and importers; and customs import records.
 - Meetings and interviews: give more flexibility to explore responses in greater depth.
 - Questionnaire surveys through the post, telephone, e-mails, supply chain, NGOs, etc.: Questionnaire surveys allow for more focused information gathering as the information flow is specific to the questions asked in the questionnaires. Questionnaire survey methodologies have been used successfully in many inventory projects, however, questionnaire preparation requires meticulous planning in identifying the sectors to be covered in the data collection and sometimes response to the questionnaire is unsatisfactorily low. This can be addressed through, inter alia, awareness campaigns to ensure that all stakeholders are informed of the survey and using data collection experts to assist stakeholders with completing the questionnaires.
 - Statistical methods: Statistical methods for surveying is another tool to collect information through a representative sample in a selected area and then extrapolated statistically to arrive at meaningful information/data. Statistical methods can be applied to any of the surveying methodologies, questionnaires, or site inspections.
 - Site inspection for stock checking and data collection.
- An inventory needs to provide firm basis for:
 - prioritizing pesticides sites according to the level of risk that they pose to public health and the environment.
 - identifying the manufacturers, suppliers, and donors of obsolete pesticides who may be willing to provide resources for their disposal and remediation.
 - planning campaigns for the private sector to surrender obsolete stocks.
 - planning the subsequent disposal of obsolete stocks.
 - planning the remediation of contaminated sites.
 - developing a programme to avoid the reoccurrence of obsolete pesticides.
 - developing an action plan as part of the implementation plan.
- To ensure consistent data, it is important to harmonise the data collection process. This involves defining the various parameters that need to be looked into while collecting the information. To obtain the same set of information from different locations/organizations in a coherent manner, it is essential that data collectors are provided with a standardized format for collecting the information in a pre-determined sequence for easy collection, data entry, and interpretation.
- The task team would develop a plan which would be approved by the PCU (and, if appropriate, the NCC). The PCU should ensure adequate involvement of representatives from the Ministries of Agriculture, Public Health, and Veterinary Service as well as the national Customs Authority to ensure that the status of POPs pesticide management issues are adequately reflected.
- Alternatives to the listed chemicals should be selected based on local studies taking into consideration the adoption of integrated pesticide/vector management approaches (IPM/IVM); promotion of environmentally sound, user-friendly, and economically-viable alternatives; and results of local field testing, adaptation trials, and large scale demonstration of the proposed alternative.
- The PCU should discuss the preventive measures for the POPs pesticides. This could include awareness raising, education, site identification, preparedness for emergencies, and risk assessment including human health and environment.
- If possible, assess the impacts on society with respect to health including public, environmental, and occupational health; agriculture including aquaculture and forestry; biota (biodiversity); economic aspects; social costs; and movement towards sustainable development.
- Regarding the monitoring of POPs pesticides, the PMU would look at different matrixes (soil, air, and water) to

thoroughly understand the life cycle management of the POP pesticides. The relevant information/data would be collected to form part of POP pesticides inventory (and support action plan evaluation). Undertaking an assessment of residue pesticides would provide information on the existence of POPs pesticides in the environment, especially in/on soil and water. Standardized methodologies for sampling would be adopted for drawing soil samples from agriculture areas and in/around warehouses, pesticides, shops. For residues in water, sampling would have to be conducted in rivers, pool, and/or wells.

Guidance

- [FAO training manual for inventory taking of obsolete pesticides, FAO Pesticide Disposal Series 10](#) (FAO, 2001)
- [Guidance on stakeholder engagement, FAO Disposal Series 11, Country Guidelines](#) (FAO, 2001)
- [Guidance on environmental risk assessment, FAO Disposal Series 12, Environmental Management Tool Kit for Obsolete Pesticides Volume 1](#) (FAO, 2009)
- [Guidance on storage and transport of pesticides, FAO Disposal Series 13, Environmental Management Tool Kit for Obsolete Pesticides Volume 2](#) (FAO, 2009)
- [Guidance on inventory taking, FAO Disposal Series 14, The Preparation of Inventories of Pesticides and Associated Waste](#) (FAO, 2010)
- [Guidance on environmental assessment and management plans for obsolete pesticides, FAO Disposal Series 15, Environmental Management Tool Kit Volume 3](#) (FAO, 2011)
- [Guidance on safeguarding and disposal of obsolete pesticides, FAO Disposal Series 16, Environmental Management Tool Kit Volume 4](#) (FAO, 2011)
- [Information and programmes on obsolete pesticides:
http://www.fao.org/WAICENT/FAOINFO/AGRICULT/AGP/AGPP/Pesticid/Disposal/guides_en.htm](#)
- [Reducing and Eliminating the use of Persistent Organic Pesticides: Guidance on alternative strategies for sustainable pest and vector management](#) (IOMC, 2002)
- [Brochure: Endosulfan - An introduction to the chemical added to the Stockholm Convention at the fifth meeting of the Conference of the Parties](#)
- [Guidance on considerations related to alternatives and substitutes for listed persistent organic pollutants and candidate chemicals - 2009](#)
- University of Cape Town post graduate diploma course on Pesticide Risk Management – Modules on International Conventions and Obsolete Pesticides available as short courses from March 2012.

Annex 3: Assessment of PCBs

Background

Article 3 of the Convention sets out obligations relating to PCBs, as a once manufactured chemical, with specific details of how PCBs should be addressed outlined in Annex A, Part II, in recognition of the widespread use of PCBs in long-lived electrical equipment. A ban on production was effective immediately upon entry into force of the Convention.

The Convention allows for PCBs to be used in equipment (e.g. transformers and capacitors), while setting out priorities for action toward the goal of eliminating them by 2025 (subject to review by the COP) at the latest. Priorities for action for identifying PCB equipment are set out in Annex A, Part II. If PCB-containing equipment is to remain in use, then Parties must promote measures to reduce exposure to PCBs. Removal and elimination of PCBs from equipment must be carried out in an appropriate manner.

Parties shall make determined efforts to identify, label, and remove from use equipment containing (i) greater than 10 per cent PCBs and volumes greater than 5 litres and (ii) greater than 0.05 per cent PCBs and volumes greater than 5 litres; and endeavour to identify and remove from use equipment containing greater than 0.005 percent PCBs and volumes greater than 0.05 litres.

Parties also need to make determined efforts designed to lead to environmentally sound waste management of liquids containing PCBs and equipment contaminated with PCBs having a PCBs content above 0.005 per cent, in accordance with paragraph 1 of Article 6, as soon as possible but no later than 2028, subject to review by the COP.

Parties must report every five years on progress in eliminating PCBs and submit it to the COP pursuant to Article 15.

Effective control of PCB use and disposal would require:

- Knowledge of PCBs in use and in unused equipment or stockpiled for disposal.
- Understanding of the condition and operation of PCB-containing equipment.
- Suitable controls on the movement, maintenance, and handling of any equipment containing PCBs (subject to definitions consistent with Convention obligations).
- The availability of appropriate waste management systems.
- Appropriate and effective monitoring and reporting of PCB equipment use, movement, sale, and disposal.

This annex sets out steps intended to assist a country to gather enough information about its situation with respect to PCBs so that it can design NIP provisions that deal effectively with PCBs.

Objectives

To assess current uses of PCBs within the country and to understand the likely quantities, equipment types, holders, operational practices, health and safety management, and end-of-life treatment of PCB-containing equipment and materials.

Outputs and outcomes

- Report detailing knowledge on historical and current import, export, use, stockpiles, and waste disposal for PCBs.
- Assessment of the legal, institutional, regulatory, and enforcement systems for PCBs management.
- Assessment of the data gaps and deficiencies in the knowledge on for PCBs management.

Primary responsibility

A PCB task team, reporting to the PCU and assisted by external experts as required.

Tasks

- Gather background information on PCB use in the country, including any measures taken to identify stocks, equipment, production sites, contaminated sites, and disposal routes, as well as any data on environmental contamination and monitoring.
- Review documents to provide briefing on PCB uses and likely issues.
- Consider formulating guidance on appropriate management of PCB-containing equipment. Such guidelines should be aimed at minimizing PCB leakage, ensuring that equipment is tracked and monitored in order to reduce environmental

risk, ensuring that PCB-containing equipment is isolated from food and feed production, and promoting measures to reduce risks of electrical failure and fire. This guidance should be in a form suitable for distribution to any users of PCBs identified during the process of inventory development.

- Carry out a preliminary inventory or update the existing inventory of PCB uses, equipment, storage, and disposal in the country. Where site visits are carried out, these could be used for labelling and registration of PCB-containing equipment and equipment likely to contain PCBs to facilitate tracking ownership of such equipment and to indicate to people handling such equipment that it is subject to specific controls. [Guidelines for the Identification of PCBs and Materials Containing PCBs](#) (UNEP, 1999) contains valuable information and suggestions for inventory compilation, as does [Identification of PCB-containing capacitors – an information booklet for electricians and electrical contractors](#) (Australian and New Zealand Environment and Conservation Council, 1997, Revised 2005).
- Review and report on current legislative controls on the use, handling, monitoring, and disposal of PCB-containing equipment and any compliance and enforcement systems and their effectiveness.

Approach and method

The task team would organize an outline project plan at the outset of the process. An initial step could be to assign tasks to individuals within the task team and nominate areas in which outside assistance would be used (for example, in the inventory compilation). It is likely that regular reports of progress would be made to the PCU.

Stakeholder interaction should be planned at the outset. This might be best addressed via the existing NCC or it may be that a more focused approach is required specifically for PCBs. The mechanism and approach selected would depend on resources, the composition and terms of reference of the NCC, and the composition and plan of the task team.

Guidance documents

- [Guidelines for the Identification of PCBs and Materials Containing PCBs](#) (UNEP, 1999)
- [PCB Inventory Form – Inventory of PCB-Containing Equipment](#) (Secretariat of the Stockholm Convention, 2002)
- [PCBs Elimination Network \(PEN\) magazine, Issue 01, “PCBs Elimination Network – Sharing Information on PCBs”](#) (UNEP, 2010)
- [Identification of PCB-containing capacitors – an information booklet for electricians and electrical contractors](#) (Australian and New Zealand Environment and Conservation Council, 1997, Revised 2005)
- [PCBs. A Compilation of Information Derived from HELCOM Recommendations, EU-Directives, UN-ECE-LRTAP, UNEP and OSPAR, and Analysis of Appropriate Measures Aiming at Safe Handling and Reduction of Releases of PCB from PCB-Containing Equipment in Use \(HELCOM, 2001\)](#)
- [PCBs. A Compilation and Evaluation of the Information Given by the Contracting Parties with the Focus on Legislative Situation, Current Uses, Stockpiles and Releases](#) (HELCOM, 2001)
- [Framework for the Management of PCBs](#) (IFCS, 2002)
- [PCB Transformers and Capacitors – From Management to Reclassification and Disposal](#) (UNEP, 2002)
- [An Assessment Report on: DDT Aldrin Dieldrin Endrin Chlordane Heptachlor Hexachlorobenzene Mirex Toxaphene Polychlorinated Biphenyls Dioxins and Furans](#) (IPCS, 1995)
- [Preparation of a National Environmentally Sound Management Plan for PCBs and PCB-Contaminated Equipment in the Context of the Implementation of the Basel Convention: Training Manual](#) (UNEP, 2003)
- [Technical guidelines for the environmentally sound management of wastes consisting of, containing or contaminated with polychlorinated biphenyls \(PCBs\), polychlorinated terphenyls \(PCTs\) or polybrominated biphenyls \(PBBs\), including HBB](#) (Secretariat of the Basel Convention, 2015)
- [General technical guidelines for the environmentally sound management of wastes consisting of, containing or contaminated with persistent organic pollutants \(POPs\)](#) (Secretariat of the Basel Convention, 2015)
- [Inventory of World-wide PCB Destruction Capacity](#) (UNEP, 2004)
- [Survey of Currently Available Non-Incineration PCB Destruction Technologies](#) (UNEP, 2000)
- [Destruction and Decontamination Technologies for PCBs and Other POPs Wastes Under the Basel Convention: A Training Manual for Hazardous Waste Project Managers](#) (Secretariat of the Basel Convention, 2002)
- [Photo booklet on PCBs in open applications](#) (PCBs Elimination Network, 2012)

- [Fact sheet on PCBs in open applications](#) (PCBs Elimination Network, 2012)
- [Fact sheet on PCBs in open applications – Residential/public buildings](#) (PCBs Elimination Network, 2012)
- [Fact sheet on PCBs in open applications – Industries/power plants](#) (PCBs Elimination Network, 2012)
- [Polychlorinated biphenyl \(PCBs\) Inventory Guidance](#) (PCBs Elimination Network, 2012)
- [PCB management guidance . Maintenance, Handling, Transport and Interim Storage of Liquids Containing PCB and Equipment Contaminated with PCB](#) (PCBs Elimination Network, 2016)

Annex 4: Assessment of POP-PBDEs and HBB¹⁰

Background

Tetrabromodiphenyl ether, pentabromodiphenyl ether, hexabromodiphenyl ether and heptabromodiphenyl ether (POP-PBDEs) and HBB are listed under Annex A. Parties must take measures to eliminate their production and use.

Article 3 of the Convention sets out obligations relating to the recycling of POP-PBDEs, with specific details in Annex A, Part IV and V. According to these, a Party may allow recycling of articles that contain or may contain POP-PBDEs, and the use and final disposal of articles manufactured from recycled materials that contain or may contain POP-PBDEs.

The condition of the exemption is that:

- (a) The recycling and final disposal is carried out in an environmentally sound manner and does not lead to recovery of POP-PBDEs for the purpose of their reuse;
- (b) The Party takes steps to prevent exports of such articles that contain levels/concentrations of POP-PBDEs exceeding those permitted for the sale, use, import or manufacture of those articles within the territory of the Party; and
- (c) The Party has notified the Secretariat of its intention to make use of this exemption.

At its sixth ordinary meeting and at every second ordinary meeting thereafter, the COP shall evaluate the progress that Parties have made towards achieving their ultimate objective of elimination of POP-PBDEs contained in articles and review the continued need for this specific exemption. This specific exemption shall in any case expire at the latest in 2030.

The COP has given recommendations to eliminate POP-PBDEs from the recycling/waste streams and POPRC has developed detailed reports which can be used as background information (see guidance documents listed below).

Management and elimination of POP-PBDEs from the relevant material streams must be carried out in an environmental sound manner.

Effective control of POP-PBDEs recycling and use of POP-PBDE-containing articles would require:

- Knowledge of the presence of POP-PBDEs in use and in unused equipment, in the recycling flow, or stockpiled for disposal;
- The availability of appropriate recycling facilities and a labelling system marking the presence of POP-PBDEs;
- The availability of appropriate waste management systems; and end-of-life treatment; and
- Appropriate and effective monitoring and reporting of POP-PBDE-containing materials, equipment use, movement, sale, and disposal.

Objectives

- To assess the presence and current uses of POP-PBDEs within the country and to understand the likely quantities, health and safety management, and end-of-life treatment of POP-PBDE-containing materials.
- To determine the need for registration for the exemption on recycling and re-use.
- To manage and eliminate POP-PBDEs from the relevant material streams in an environmentally sound manner considering the recommendations of COP5 on the elimination of brominated diphenyl ethers from the waste stream and from recycling.
- To integrate the activities on POP-PBDE management in the overall management concept (re-use, recycling, and disposal) for material flows containing POP-PBDEs (e.g. electrical and electronic equipment/ waste electrical and electronic equipment (EEE/WEEE), transport sector, furniture, mattresses) and link these activities to the overall concept of sustainable production and consumption.

¹⁰ Due to the early and relatively small production (total 6,000 tonnes) and the historic use of HBB (from 1970 to 1975), the chemical is of minor relevance for the implementation process since most of HBB-containing materials have been disposed of already decades ago. Since former use areas are identical with those of POP-PBDEs, all measures implemented for POP-PBDEs also address possible minor remaining levels of HBB possibly present in articles and materials. Due to the minor relevance of HBB it is only mentioned in the NIP guidance where it deemed necessary.

Outputs and outcomes

- Inventory report providing details on the knowledge of the recycling, use, import, export, stockpiles, and waste disposal for POP-PBDE-containing articles and materials. The main inventory areas to address are certain electric and electronic equipment and the transport sector, and other minor use areas depending on the region or country.
- Assessment of the legal, institutional, regulatory, and enforcement systems for management, recycling and end-of-life treatment of POP-PBDE-containing materials (in particular electric and electronic equipment and the transport sector and related wastes).
- Concept for the integration of the management of POP-PBDE-containing articles and materials (WEEE, cars and other transport, possibly furniture) in the overall management of these material flows. If detailed waste management and recycling concepts of these material flows do not exist, then they should be established considering the waste management hierarchy and the ESM of POP-PBDE-containing materials.
- Assessment of the data gaps and deficiencies in the knowledge of POP-PBDE-containing material streams and their management and related further needs.
- Identification and assessment of disposal and destruction options for POP-PBDE containing articles and materials and a road map for environmental sound management.
- Identification and assessment of possibilities for integration of the management of materials containing POP-PBDEs in the overall management (re-use, recycling, and disposal) of the POP-PBDE containing material flows (e.g. EEE/WEEE, transport sector, furniture, polymer recycling) considering the overall concept of sustainable production and consumption.

Primary responsibility

A POP-PBDEs task team, reporting to the PCU and assisted by external experts as required. Since WEEE polymers are an important material flow of POP-PBDEs, the task team should work closely together with the Basel Convention team working in this field.

Tasks

- Review documents to provide a briefing on the management of POP-PBDE-containing material including the [POP-BDE Inventory Guidance](#) (Secretariat of the Stockholm Convention, 2015), [POP-PBDEs BAT/BEP Guidelines](#) (Secretariat of the Stockholm Convention, 2015), “Recommendations on the elimination of brominated diphenyl ethers from the waste stream and on risk reduction” of COP5, and other relevant documents.
- Carry out a preliminary inventory of materials containing POP-PBDEs, their current use, recycling and waste management, storage, disposal and contaminated sites in the country. For this task, use the [POP-BDE Inventory Guidance](#) (Secretariat of the Stockholm Convention, 2015). The inventory activities should be linked with inventory activities on EEE and the inventory of the transport sector related waste.
- Enforce a ban on production and use of POP-PBDEs.
- Decide on the need for exemption for recycling/re-use. If the Party notifies the Secretariat of exemption for recycling, then it should try to separate articles with a high POPs content from articles with a low/no POPs content and manage articles with high POPs content in an environmentally sound manner.
- Assess the “Recommendations on the elimination of brominated diphenyl ethers from the waste stream and on risk reduction” of COP5 and consider them in the establishment of an action plan, where appropriate.
- Identify disposal options that comply with the [POP-PBDEs BAT/BEP Guidelines](#) (Secretariat of the Stockholm Convention, 2015) and technical guidelines developed by the Basel Convention.
- Where site visits are carried out in the frame of inventory development or other activities, notes should be made on the appropriateness and lack of BAT/BEP on management and treatment of POP-PBDE-containing materials (in particular EEE/WEEE, end-of-life vehicle management, and polymer recycling).
- Establish a detailed strategy on the management of POP-PBDE-containing materials considering BAT/BEP including priority areas and a timetable for implementation. These activities should be harmonized with ongoing or planned activities on wastes/resource management of POP-PBDE containing material flows (in particular WEEE management and management of end-of-life vehicles).
- Review, develop, and report on current legislative controls on the use, handling, monitoring, and disposal of POP-PBDE-containing materials and any compliance and enforcement systems and their effectiveness.

- Identify inputs to a plan or strategy for promoting awareness, training, and education with respect to measures to achieve reductions in releases and management of POP-PBDE-containing articles and with a focus on effective participation by stakeholders with influence over these material flows and the wider community. This should be linked to the more general work on awareness and communication related to all POPs and where appropriate to toxic chemicals in consumer products. These activities should also be utilized for promotion and education on sustainable production and consumption.

Bear in mind the three tier inventory approach, as described in the document Guidance for the inventory of polybrominated diphenyl ethers (PBDEs) listed under the Stockholm Convention.

Approach and method

The task team would outline a project plan at the outset of the process. An initial step could be to assign tasks to individuals within the task team and nominate areas in which outside assistance would be used (for example, in the inventory compilation and the compilation of information on how the main material streams containing POP-PBDEs are managed considering the recommendations made by COP5). It is likely that regular reports of progress would be made to the PCU.

Stakeholder interaction should be planned at the outset. This might be best addressed via the existing NCC or it may be that a more focused approach is required specifically for POP-PBDEs. A strong linkage should be established to the Basel Convention or other activities on E-waste management and to stakeholders involved in the management of end-of-life vehicles.

The mechanism and approach selected would depend on resources, composition and terms of reference of the NCC, and composition and plan of the task team.

Guidance documents

- [Guidance for the Inventory of Polybrominated Diphenyl Ethers \(PBDEs\) listed under the Stockholm Convention on POPs](#) (Secretariat of the Stockholm Convention, 2015)
- [Guidelines on the Best Available Techniques \(BAT\) and Best Environmental Practices \(BEP\) for the Recycling and Waste Disposal of Articles containing Polybrominated Diphenyl Ethers \(PBDEs\) listed under the Stockholm Convention on POPs](#) (Secretariat of the Stockholm Convention, 2015)
- [Recommendations on the elimination of brominated diphenyl ethers from the waste stream and on risk reduction for perfluorooctane sulfonic acid \(PFOS\) and its salts and perfluorooctane sulfonyl fluoride \(PFOSF\)](#)
- [Guidance on feasible flame-retardant alternatives to commercial pentabromodiphenyl ether \(UNEP/POPS/COP.4/INF/24\)](#) (UNEP, 2009)
- [Technical Review of the Implications of Recycling Commercial Pentabromodiphenyl Ether and Commercial Octabromodiphenyl Ether \(UNEP/POPS/POPRC.6/2\)](#) (UNEP, 2010)
- [Supporting Document for Technical Review of the Implications of Recycling Commercial Pentabromodiphenyl Ether and Commercial Octabromodiphenyl Ether \(UNEP/POPS/POPRC.6/INF/6\)](#) (UNEP, 2010)
- [Debromination of brominated flame retardants \(UNEP/POPS/POPRC.6/INF/ 20/Rev.1\)](#) (UNEP, 2010)
- [Risk management evaluation for commercial pentabromodiphenyl ether](#) (UNEP/POPS/POPRC.3/20/Add.1) (UNEP, 2008)
- [Risk management evaluation for commercial octabromodiphenyl ether \(UNEP/POPS/POPRC.4/15/Add.1\)](#) (UNEP, 2008)
- [Draft guidance on sampling, screening and analysis of persistent organic pollutants in products and articles](#) (Secretariat of the Stockholm Convention, 2013)

Annex 5: Assessment of PFOS, its salts and PFOSF

Background

PFOS is listed under Annex B of the Convention. Parties must take measures to eliminate the production and use of PFOS, its salts, PFOSF and PFOS related chemicals as substances, in mixtures, and in articles containing these chemicals. Furthermore, Parties need to develop waste management schemes to treat these materials in an environmental sound manner.

Specific exemptions and acceptable purposes available for use and production of PFOS, its salts, PFOSF and PFOS related chemicals are also outlined in Annex B.

In general the production of PFOS, its salts, PFOSF and PFOS related chemicals as substances, in mixtures, and in articles containing these chemicals is only allowed for Parties if notified to the registers of Specific Exemptions and Acceptable purposes.

Trade of PFOS, its salts, PFOSF and PFOS related chemicals as a substance is allowed provided that the exporting Party has registered the substance for production for a certain specific exemption or notified the Secretariat of its intention to produce the substance for a certain acceptable purpose, and that the importing Party has registered the use for the same specific exemption or has notified the Secretariat of the intention to use the substance for the same acceptable purpose.

Trade is allowed for PFOS, its salts, PFOSF and PFOS related chemicals contained in a mixture or article provided that the exporting Party has registered the mixture or article for a certain specific exemption or notified the Secretariat of its intention to use the mixture or article for a certain acceptable purpose, and that the importing Party has registered the use of the mixture or article for the same specific exemption or has notified the Secretariat of the intention to use the mixture or article for the same acceptable purpose.

Every four years, each Party that uses and/or produces these chemicals is obligated to report and submit information to the Conference of the Parties on the progress made to eliminate PFOS, its salts and PFOSF, in accordance with Article 15 of the Convention.

Objectives

The objectives of an assessment of PFOS, its salts and PFOSF are:

- To prepare an inventory report detailing knowledge on (i) the current need and use of PFOS in the country, (ii) stockpiles, (iii) waste disposal for PFOS-containing materials, and (iv) identification of contaminated sites.
- To consider the recommendations of the COP5 on the on risk reduction for PFOS, and its salts and PFOSF.
- To identify the areas where there is a need to develop and/or update existing legal/regulatory and institutional frameworks to comply with the obligations of the newly listed POPs; in particular identifying the needs for exemption and acceptable purpose under the Stockholm Convention.
- To integrate the PFOS management activities in the overall management concept of material flows containing PFOS (e.g. carpets, textiles, furniture, paper) and link these activities to the overall concept of sustainable production and consumption.
- To gather information on experiences of using PFOS alternatives in the areas of acceptable purposes and specific exemptions.

Outputs and outcomes

- Inventory report detailing knowledge on (i) the current use of PFOS in the country, (ii) stockpiles, and (iii) waste disposal for PFOS containing articles and materials.
- Inventory report of PFOS contaminated sites and assessment of their impact and threats to human health and the environment.
- Conclusion on the need for exemptions and acceptable purposes and registration for these exemptions.
- Assessment of the legal, institutional, regulatory, and enforcement systems for PFOS and related chemicals and articles and materials containing PFOS and related chemicals.
- Input to the integration of the management of PFOS-containing articles and materials in the overall management concepts of the affected material flows containing PFOS and related chemicals, e.g. carpets,

impregnated textiles, leather, furniture, paper. (If detailed waste management and recycling concepts of these material flows do not exist, then they need to be established considering the 3R concept but also considering the ESM of POP-PBDE-containing materials.)

- Risk management strategy considering the recommendations of COP5 on risk reduction for PFOS including short, medium, and long term measures.
- Assessment of the data gaps and deficiencies in the knowledge of PFOS-containing material streams and input to their management and strategy to address these shortcomings.
- Identification and assessment of disposal and destruction options for PFOS-containing articles and materials and input to a road map for their environmental sound management.
- Compilation of information on experiences of using PFOS alternatives in the areas of acceptable purposes and specific exemptions and as contributions to addressing sustainable production and consumption.

Primary responsibility

A PFOS task team, reporting to the PCU and assisted by external experts as required. Since PFOS-containing articles and materials are considered POPs waste, the task team should work closely together with the Basel Convention team members working in the field of POPs waste. As the destruction of the highly stable fluoro-organic chemicals require specific considerations regarding destruction quality and material quality of the destruction facilities, the PFOS task team might also consider experience gained from the destruction of fluorine-containing ODS & GHG.

Tasks

- Review documents to provide a briefing on PFOS uses, management, and likely issues including the [PFOS Inventory Guidance](#) (Secretariat of the Stockholm Convention, 2015) “Recommendation on risk reduction for perfluorooctane sulfonic acid (PFOS) and its salts and perfluorooctane sulfonyl fluoride (PFOSF)”, and other relevant documents (see below).
- Gather background information on the current and former use of PFOS in the country, including any measures taken to identify stocks, equipment, contaminated sites, and disposal routes, as well as any data on environmental contamination and monitoring.
- Carry out an inventory of PFOS and related substances, their current use, material flow, recycling and waste management, storage, and disposal in the country. See [PFOS Inventory Guidance](#) (Secretariat of the Stockholm Convention, 2015).
- Determine the need for specific exemptions and acceptable purposes and notify the Secretariat of the Stockholm Convention as appropriate.
- Assess the “Recommendations on on risk reduction for perfluorooctane sulfonic acid (PFOS) and its salts and perfluorooctane sulfonyl fluoride (PFOSF)” of COP5 and consider them when preparing the inventory as well as later in the development of an action plan, where appropriate.
- Where appropriate, undertake site visits and inspections of companies producing PFOS and related chemicals or companies using PFOS and related chemicals in processes or in the production of articles (see [Guidance for Strengthening the Regulatory Framework to Enable Regular Monitoring of Products and Articles that may Contain New POPs](#) (Secretariat of the Stockholm Convention, 2012) and [PFOS Inventory Guidance](#) (Secretariat of the Stockholm Convention, 2015)). At all site visits/inspections of PFOS producing and using industries, document the former and current waste management practices. If wastes have been disposed, these sites should be included in the contaminated site inventory and the extent of pollution and the possible need of remediation should be assessed and documented.
- Undertake a contaminated site inventory and include the former and current use of fire fighting foams in practice areas and areas of (former) fire events. The extent of pollution and the need of remediation should be assessed and documented.
- Where site visits/inspections are carried out, notes should be made on the appropriateness and lack of BAT/BEP on management and treatment of PFOS and related chemicals (see [PFOS BAT/BEP Guidelines](#) (Secretariat of the Stockholm Convention, 2015)).
- Consult the [PFOS BAT/BEP Guidelines](#) (Secretariat of the Stockholm Convention, 2015). Evaluate the facilities using PFOS and related substances on their appropriate management and abatement of these chemicals. If needed, suggestions on short and medium term improvements should be made.

- Prepare inputs to the development of a strategy on the end-of-life management of PFOS-containing materials and the identification of disposal options of PFOS-containing articles that comply with the Stockholm Convention BAT/BEP guidelines and technical guidelines of the Basel Convention.
- Prepare inputs to assist with the prioritisation of remediation activities for landfills, sediments, and production, manufacturing and treatment sites that present significant risks to human health and/or the environment.
- Review and consider legislative controls on the use, handling, monitoring, and disposal of PFOS and PFOS-containing materials and any compliance and enforcement systems and their effectiveness.
- Compile information on the experiences of using PFOS alternatives in the areas of acceptable purposes and specific exemptions and report these to the Secretariat of the Stockholm Convention. Utilize and link these activities where possible to the process of sustainable production and consumption.
- Identify inputs to a plan or strategy for promoting awareness, training, and education with respect to measures to achieve reductions in releases and management of PFOS-containing articles and with a focus on the effective participation of stakeholders with influence over these material flows and the wider community. This should be linked to the more general work on awareness and communication related to all POPs and where appropriate to toxic chemicals in consumer products. These activities should also be utilized for promotion and education on sustainable production and consumption.

Bear in mind the three tier inventory approach, as described in the document Guidance for the inventory of PFOS and related chemicals.

Methods and approach

The task team would outline a project plan at the outset of the process. An initial step could be to assign tasks to individuals within the task team and nominate areas in which outside assistance would be used (e.g. in the inventory compilation and the compilation on information on how the main material flows containing PFOS are managed considering the PFOS BAT/BEP guidance and recommendations made by COP5). Regular progress reports should be made to the PCU.

Stakeholder interaction should be planned at the outset. This might be best addressed through the existing NCC or it may be that a more focused approach is required specifically for PFOS. A strong linkage should be established to the Basel Convention activities on managing POPs-containing wastes. The mechanism and approach selected would depend on resources, the composition and terms of reference of the NCC, and the composition and plan of the task team.

Guidance

- [Guidance for the Inventory of Perfluorooctane Sulfonic Acid \(PFOS\) and related Chemicals listed under the Stockholm Convention on POPs](#) (Secretariat of the Stockholm Convention, 2015)
- [Guidelines on Best Available Techniques and Best Environmental Practices for the Production and Use of Perfluorooctane Sulfonic Acid \(PFOS\) and related Chemicals under the Stockholm Convention on POPs](#) (Secretariat of the Stockholm Convention, 2015)
- [Guidance for Strengthening the Regulatory Framework to Enable Regular Monitoring of Products and Articles that may Contain New POPs](#) (Secretariat of the Stockholm Convention, 2012)
- [Draft guidance on sampling, screening and analysis of persistent organic pollutants in products and articles](#) (Secretariat of the Stockholm Convention, 2013)

- [Recommendations on the elimination of brominated diphenyl ethers from the waste stream and on risk reduction for perfluorooctane sulfonic acid \(PFOS\) and its salts and perfluorooctane sulfonyl fluoride \(PFOSF\).](#)
Recommendations from COP5 (Annex to decision POPRC-6/2)
- [Consolidated guidance on alternatives to perfluorooctane sulfonic acid and its related chemicals .](#)
(UNEP/POPS/POPRC.12/INF/15/Rev.1)

Annex 6: Assessment of HBCD

Background

Hexabromocyclododecane is listed under Annex A, with specific exemptions for production as allowed for the parties listed in the register of specific exemptions and for use in expanded polystyrene and extruded polystyrene in buildings. Each Party that has registered for the exemption pursuant to Article 4 shall take necessary measures to ensure that expanded polystyrene and extruded polystyrene containing HBCD can be easily identified by labelling or other means throughout its life cycle.

Objectives

- To assess the legal, institutional and regulatory systems for the management of HBCD and materials containing HBCD
- To identify and assess the presence and current uses of HBCD within the country.
- To determine the need for registration for the specific exemption.
- To develop an inventory of HBCD and materials containing HBCD.

Outputs and outcomes

- Inventory report including information on :
 - ✓ Past and current uses and/or production of HBCD at the national level;
 - ✓ Presence of products and articles containing HBCD on the consumer market;
 - ✓ Flows (import/export) into a country of products and articles containing HBCD;
 - ✓ Disposal practices for products and articles containing HBCD when they become wastes;
 - ✓ Stockpiles;
 - ✓ Import/export of HBCD waste (Refer to relevant Basel Convention Technical Guidelines)
 - ✓ Alternatives to HBCD
 - ✓ Identification and assessment of data gaps
- Assessment report of the legal, institutional and regulatory systems for the management of HBCD and materials containing HBCD.
- Identification of priority areas where there is need to develop strategies and actions plans to effectively comply with obligations under the Convention regarding HBCD

Primary responsibility

A HBCD task team, reporting to the PCU and assisted by external experts as required. Provisions should be taken for the task team to work in collaboration, where applicable, with the national team addressing POPs wastes under the Basel Convention.

Tasks

- Review documents and information to provide a national assessment report on the existing legal, institutional and regulatory systems for the management of HBCD.
- Carry out a preliminary national inventory using the [HBCD Guidance for the inventory, identification and substitution of HBCD](#) (Secretariat of the Stockholm Convention, 2015). The inventory findings should be able to assist in identifying priority areas for action plan development.
- Evaluate and decide on the need for exemption as per part I Annex A of the Stockholm Convention..
- Identify BAT/BEP options using the [Draft BAT/BEP Guidelines for HBCD](#) (Secretariat of the Stockholm Convention, 2017), and where available, waste management options using the technical guidelines developed by the Basel Convention.

Approach and method

The task team would outline a project plan at the outset of the process. An initial step could be to assign tasks to individuals within the task team and nominate areas in which outside assistance would be used (for example, in the compilation of information to develop an initial inventory and to identify alternatives to HBCD). It is likely that regular reports of progress would be made to the PCU.

Stakeholder interaction should be planned at the outset. This might be best addressed via the existing NCC or it may be that a more focused approach is required specifically for HBCD. A strong linkage should be established to the Basel Convention or other activities on POPs management (e.g. BAT/BEP).

The mechanism and approach selected would depend on resources, composition and terms of reference of the NCC, and composition and plan of the task team.

Guidance documents

- [Guidance for the inventory, identification and substitution of Hexabromocyclododecane \(HBCD\)](#) (Secretariat of the Stockholm Convention, 2015)
- [Draft guidance on best available techniques and best environmental practices for the production and use of hexabromocyclododecane listed with specific exemptions under the Stockholm Convention](#) (Secretariat of the Stockholm Convention, 2017)
- [Risk management evaluation on hexabromocyclododecane](#) (UNEP/POPS/POPRC.7/19/Add.1) (Secretariat of the Stockholm Convention, 2011)
- [Draft guidance on sampling, screening and analysis of persistent organic pollutants in products and articles](#) (Secretariat of the Stockholm Convention, 2013)

Annex 7: Assessment of HCBd:

Background

Hexachlorobutadiene is listed in Annex A, part I of the Convention without specific exemptions. This chemical is not known to be currently intentionally produced or used. All applications seemed to have ceased, which indicates that substitution has taken place and that alternatives are available and in use (POPRC, 2013). Control measures targeting unintentional production as an unwanted waste by-product and unintentional releases should be addressed by BAT/BEP practices and relevant guidelines for POPs wastes under the Basel Convention.

Objectives

- To assess the legal, institutional and regulatory systems for the management of HCBd and materials containing HCBd
- To identify and assess the presence and current uses of HCBd within the country.
- To develop an inventory with respect to HCBd.

Outputs and outcomes

- Inventory report including information on :
 - ✓ Country baseline with data on production/generation, use, stockpiles and disposal of HCBd.
 - ✓ Past and current uses and/or production of HCBd at the national level;
 - ✓ Presence of products, articles and stocks containing HCBd;
 - ✓ Import and export of HCBd containing wastes for environmentally sound disposal;
 - ✓ Disposal practices for products and articles containing HCBd when they become wastes;
 - ✓ Sites potentially contaminated with HCBd
- Assessment report of the legal, institutional and regulatory systems for the management of HCBd and materials containing HCBd.
- Identification of NIP priority areas where there is need to develop strategies and actions plans to effectively comply with obligations under the Stockholm Convention regarding HCBd

Primary responsibility

A HCBd task team, reporting to the PCU and assisted by external experts as required. Provisions should be taken for the task team to work in collaboration, where applicable, with the national team addressing POPs wastes under the Basel Convention.

Tasks

- Review documents and information to provide a national assessment report on the existing legal, institutional and regulatory systems for the management of HCBd.
- Carry out a preliminary national inventory using the Draft Guidance for the Inventory of HCBd (Secretariat of the Stockholm Convention, currently under development, 2017). The inventory findings should be able to assist in identifying priority areas for action plan development.
- Identify BAT/BEP options using the relevant [BAT/BEP Guidance](#) developed by the Secretariat of the Stockholm Convention, and where available, waste management options using the technical guidelines developed by the Basel Convention.

Approach and method

The task team would outline a project plan at the outset of the process. An initial step could be to assign tasks to individuals within the task team and nominate areas in which outside assistance would be used (for example, in the compilation of information to develop an initial inventory on HCBd). It is likely that regular reports of progress would be made to the PCU.

Stakeholder interaction should be planned at the outset. This might be best addressed via the existing NCC or it may be that a more focused approach is required specifically for HCBD. A strong linkage should be established to the Basel Convention or other activities on POPs management (e.g. BAT/BEP).

The mechanism and approach selected would depend on resources, composition and terms of reference of the NCC, and composition and plan of the task team.

Guidance documents

- [Guidelines on best available techniques and best environmental practices relevant to Article 5 and Annex C of the Stockholm Convention on Persistent Organic Pollutants](#) (Secretariat of the Stockholm Convention, 2006).
- [Risk management evaluation on hexachlorobutadiene](#) (UNEP/POPS/POPRC.9/13/Add.2) (Secretariat of the Stockholm Convention, 2013).
- [Evaluation of new information in relation to the listing of hexachlorobutadiene in Annex C to the Stockholm Convention on Persistent Organic Pollutants \(executive summary\)](#). UNEP/POPS/POPRC.12/11/Add.5. (Secretariat of the Stockholm Convention, 2016)
- [Draft guidance on sampling, screening and analysis of persistent organic pollutants in products and articles](#) (Secretariat of the Stockholm Convention, 2013)

Annex 8: Assessment of PCN

Background

Polychlorinated naphthalenes are listed under Annexes A and C of the Convention with specific exemptions for use in the production of polyfluorinated naphthalenes, including octafluoronaphthalene. To date intentional production of PCN is assumed to have ended. PCN are unintentionally generated during high-temperature processes in the presence of chlorine.

Objectives

- To assess the legal, institutional and regulatory systems for the management of PCN and materials containing PCN
- To identify and assess the presence and current uses of PCN within the country.
- To determine the need for registration for the specific exemption.
- To develop an inventory of PCN and materials containing PCN.
- To develop effective strategies for the elimination of PCN and the environmentally sound management of products, stockpiles and wastes containing PCN.

Outputs and outcomes

- Inventory report including information on :
 - ✓ Past and current uses and/or production of PCN at the national level;
 - ✓ Presence of products and articles containing PCN on the consumer market;
 - ✓ Flows (import/export) into a country of products and articles containing PCN;
 - ✓ Disposal practices for products and articles containing PCN when they become wastes;
 - ✓ Stockpiles;
 - ✓ Sites potentially contaminated with PCN;
 - ✓ Import/export of PCN waste (Refer to relevant Basel Convention Technical Guidelines)
 - ✓ Alternatives to HPCN
- Assessment report of the legal, institutional and regulatory systems for the management of PCN and materials containing PCN.
- Identification of priority areas where there is need to develop strategies and actions plans to effectively comply with obligations under the Convention regarding PCN

Primary responsibility

A PCN task team, reporting to the PCU and assisted by external experts as required. Provisions should be taken for the task team to work in collaboration, where applicable, with the national team addressing POPs wastes under the Basel Convention.

Tasks

- Review documents and information to provide a national assessment report on the existing legal, institutional and regulatory systems for the management of PCN.
- Carry out a preliminary national inventory using the Draft inventory guidance for the inventory of polychlorinated naphthalenes (PCNs) (Secretariat of the Stockholm Convention, under development, 2017). The inventory findings should be able to assist in identifying priority areas for action plan development.
- Evaluate and decide on the need for specific exemptions as per part I Annex A of the Stockholm Convention.
- Identify BAT/BEP options using the relevant [BAT/BEP Guidance](#) developed by the Secretariat of the Stockholm Convention, and where available, waste management options using the technical guidelines developed by the Basel Convention.

Approach and method

The task team would outline a project plan at the outset of the process. An initial step could be to assign tasks to individuals within the task team and nominate areas in which outside assistance would be used. It is likely that regular reports of progress would be made to the PCU.

Stakeholder interaction should be planned at the outset. This might be best addressed via the existing NCC or it may be that a more focused approach is required specifically for PCN. A strong linkage should be established to the Basel Convention or other activities on POPs management (e.g. BAT/BEP).

The mechanism and approach selected would depend on resources, composition and terms of reference of the NCC, and composition and plan of the task team.

Guidance documents

- Risk management evaluation on chlorinated naphthalenes (UNEP/POPS/POPRC.9/13/Add.1) (Secretariat of the Stockholm Convention, 2013).
- Draft guidance for the inventory of polychlorinated naphthalenes (PCNs). (Secretariat of the Stockholm Convention, under development, 2017).
- [General technical guidelines on the environmentally sound management of wastes consisting of, containing or contaminated with Persistent Organic Pollutants](#). (Secretariat of the Basel Convention, 2015).
- [Draft guidance on sampling, screening and analysis of persistent organic pollutants in products and articles](#) (Secretariat of the Stockholm Convention, 2013)

Annex 9: Assessment of Releases of Unintentionally Produced Chemicals

Background

Under the Stockholm Convention, Parties are required to reduce total releases from anthropogenic sources of the chemicals listed in Annex C with the goal of continually minimizing and, where feasible, ultimately eliminating releases of these unintentionally generated chemicals. Toward this end, Parties must develop action plans as part of their NIP to identify, characterize, and address the releases of unintentional POPs listed in Annex C. According to Article 5 of the Convention, action plans shall include evaluations of current and projected releases that are derived through the development and maintenance of source inventories and release estimates, taking into consideration the source categories addressed in Annex C.

Five years after developing their action plans, Parties are required to review their adopted strategies, including the extent to which their unintentional POPs releases have been reduced, and to incorporate such reviews in the national reports pursuant to Article 15. In practice, this means that Parties must prepare their initial release estimates and update these estimates at regular intervals (e.g. every five years). Parties may also find it necessary to revise their initial and subsequent estimates in order to establish and maintain the consistency necessary for discerning meaningful trends in releases over time.

PCDD/PCDF releases are accompanied by releases of other unintentional POPs, which can be minimized or eliminated by the same measures that are used to address PCDD/PCDF releases. When a comprehensive inventory of PCDD/PCDF is elaborated, it allows the identification of priority sources, setting of measures, and development of action plans to minimize releases of all unintentionally produced POPs. It is thus recommended for practical reasons that inventory activities focus on PCDD/PCDF, as these substances are indicative of the presence of other unintentional POPs. They are considered to constitute a sufficient basis for identifying and prioritizing sources of all such substances as well as for devising applicable control measures for all Annex C POPs and for evaluating their efficacy.

The [Toolkit for Identification and Quantification of Dioxins, Furans and Other Unintentional POPs](#) (Secretariat of the Stockholm Convention, 2013) facilitates inventory development and updating. It provides a harmonized framework for elaboration of comparable release inventories of Annex C chemicals..

To achieve the goal of the Convention, Parties are required to implement or promote best available techniques (BAT) and best environmental practices (BEP), as described in [Guidelines on best available techniques and provisional guidance on best environmental practices relevant to Article 5 and Annex C of the Stockholm Convention](#) (Secretariat of the Stockholm Convention, 2008).

Objective

- To carry out initial and regularly updated evaluations of current and projected releases of the chemicals listed in Annex C of the Convention.
- To assess the situation regarding BAT/BEP within industries and facilities listed in Annex C and to develop an action plan for the implementation of BAT/BEP in line with the Stockholm Convention requirements.
- To detail existing laws and policies relating to the management of releases of these chemicals and to evaluate their effectiveness and deficiencies.
- To evaluate the efficacy of the measures adopted in the action plan.
- To link and where feasible integrate the action plan on reduction of unintentionally produced POPs with other relevant activities, such as waste/resource management and cleaner production, and to assess synergies with the reduction of mercury and greenhouse gas emissions.

Outputs and Outcomes

- Initial and updated inventories of releases of chemicals listed in Annex C of the Convention to all media, their presence in products and wastes, and indications of potentially contaminated sites.
- Report on the BAT/BEP situation within industries and facilities listed in Annex C.
- Initial and updated reports on the relevant laws, policies, and enforcement and control systems that control releases, on determining technology and operational restrictions applied to source categories, and on the efficacy of these measures.
- A plan for linking and where appropriate integrating of reduction of unintentionally POPs with other activities in

the respective sectors (waste/resource management, clean production). Synergies are expected for the reduction of mercury emission and possibly with reduction of GHG emission.

Primary responsibility

Unintentionally produced POPs task team, reporting to the PCU and assisted by external experts as required.

Tasks

- Review the availability of expertise and the tasks to be undertaken. Arrange for training or external input to ensure that staff members are suitably prepared to carry out the tasks.
 - Undertake a baseline release estimate (i.e. the first inventory of sources and releases of Annex C POPs). This first inventory serves as a baseline against which subsequent updated release estimates are assessed in order to establish trends in releases over time and evaluate the efficacy of the adopted strategies for minimizing and/or eliminating PCDD/PCDF and other unintentional POPs releases. The [Toolkit for Identification and Quantification of Dioxins, Furans and Other Unintentional POPs](#) (Secretariat of the Stockholm Convention, 2013) provides a methodology for making inventories of PCDD/PCDF and other unintentional POPs using a country's activity data combined with emission factors. This activity should be coordinated with any pre-existing national inventory or PRTR programme and with existing or ongoing contaminated site inventories of other pollutants..
 - The current UNEP toolkit does not address releases of PCBs, HCB or PCNs. There is comparatively little information about releases of PCBs and HCB as unintentionally produced POPs. A review of information on PCB releases is available in [PCB and PAH Releases from Incineration and Power Generation Processes, R&D Technical Report P4-052/TR](#) (Environment Agency (England And Wales), 2002).
 - Evaluate alternative materials, products, and processes that prevent the formation of unintentional POPs for each source category listed in Annex C to the Convention, Parts II and III.
- 7 Assess the BAT/BEP situation within industries and facilities listed in Annex C.
- Summarize provisions of relevant laws which control releases from the processes identified in the inventory, listing any emission limit values, technology restrictions, and monitoring requirements for air, land, and water releases. Also review the effectiveness of any existing monitoring programmes and the availability of qualified contractors or experts to carry out testing and analysis.
 - Outline a plan or strategy for promoting awareness, training, and education with respect to measures to achieve reductions in releases and designed to achieve effective participation by stakeholders with influence over releases and the wider community. This should be linked to the more general work on awareness and communication related to all POPs.
 - Identify sources of expertise within the country and the availability of technical resources such as analytical facilities and laboratories able to take adequate samples, gather summary information on costs, and with experience and lead times to help with planning studies or monitoring that may be considered.
 - Engage with officials and experts on agriculture and trade to ensure that any relevant initiatives which might address required levels of residual contamination of food, animal feed, or other products with unintentionally produced POPs are flagged and considered in NIP development, review, or updating.
 - Update the inventory at regular intervals (e.g. every five years) by beginning with an examination of the previous/baseline inventory to identify the approach used, including: (i) the classification of sources and emission factors used; (ii) information sources based on which activity rates were estimated; and (iii) assumptions and expert judgment applied to fill the gaps. In a second step, review changes in data since the baseline inventory, in particular by checking for factors that may influence changes in releases over time. These include: economic and/or demographic growth; changes in technologies in particular through phasing in BAT and BEP; building, reconstruction or close down of production facilities; substitution of fuels; introduction of abatement techniques; identification of new sources; and others. It is also important to check, whether new or revised emission factors have become available or new source categories or classes have been included in the Toolkit. Once these data and information are collected, proceed with the reclassification of sources to reflect the current situation in the particular reference year and with the establishment of activity rates for the reference year. Once the information is assessed and the inventory is updated to reflect economic, demographic, and technical changes, the need to revise the previous inventories, including the baseline, may arise. Revising previous inventories so that new or revised emission factors and new source categories and classes are incorporated is especially important.
 - Present a summary of the current situation, projected future releases, and options to meet obligations.

- Assess where the reduction of unintentionally produced POPs can be linked or integrated with other release reduction activities of Annex C facilities and overall improvement of waste/resource management and cleaner/sustainable production. In this framework, synergies with upcoming activities on mercury emission reduction, and where relevant GHG emission reduction, should be assessed and harmonized.
- Evaluate the efficacy of the measures adopted in the action plan and report them under Article 15 of the Convention.

Method and approach

- The task team would be responsible for planning and managing the process with guidance from the PCU.
- Inventories would be compiled, maintained, and updated by the task team, external experts working with the task team, or others, and in close coordination with the PCU. (A system would be established to ensure regular maintenance and updating of the inventories.) Other tasks would be coordinated by the task team and carried out by designated individuals or groups. A wider group of stakeholders could be used to generate information throughout the process.
- UNEP could provide help on inventory compilation and interpretation.

Relevant guidance

- [Toolkit for Identification and Quantification of Dioxins, Furans and Other Unintentional POPs](#) (Secretariat of the Stockholm Convention, 2013)
- [Toolkit Emission Factors](#) (UNEP, 2013)
- [PCB and PAH Releases from Incineration and Power Generation Processes, R&D Technical Report P4-052/TR](#) (Environment Agency (England And Wales), 2002)
- Hogendoorn EA, Bruinen de Bruin Y, Janssen MPM (2009) Inventory emission factors for pentachlorobenzene. RIVM Letter report 601773002
- Risk Management approach for Polychlorinated Naphthalenes (PCNs) (Environment Canada, 2011)
- [Guidelines on best available techniques and provisional guidance on best environmental practices relevant to Article 5 and Annex C of the Stockholm Convention](#) (Secretariat of the Stockholm Convention, 2008).

Annex 10: Recommended Elements for Consideration in Outline of NIP

In the case of NIP review and updating, Parties will typically focus on reassessing national priorities (e.g. new priorities due to new POPs, earlier priorities in the initial/last updated NIP); updating of earlier action plans to reflect progress made in implementation and to include additional newly listed POPs where relevant; and developing separate new action plans for newly listed POPs as necessary.

National Implementation Plan for Persistent Organic Pollutants

Executive summary

The executive summary would provide a concise overview of the major points in the NIP, two to four pages in length, suitable for circulation as a stand-alone document. It would typically cover a country's commitment to implement a NIP, implementation progress to date, the objectives of the Convention, (updated) national priorities and key issues, (updated) targets for implementation, and (updated) resource requirements.

1. Introduction

Chapter 1 would outline the purpose and structure of the NIP, including a summary of the Stockholm Convention, its aims, and obligations. It would describe the mechanism used to develop or review/update the NIP and the stakeholder consultation process. A summary of the POPs issue would provide context and background outlining the chemicals, their uses, and the problems they cause. Brief details on progress to date in implementing the Convention could also be included.

2. Country baseline

Chapter 2 would provide basic background information relevant to the NIP. It would describe the current situation and state of knowledge in the country about POPs and the status of institutional and other capacity to address the problem. For countries that are updating their NIP, a revision of the former profiles could also be assessed and included as baseline information.

2.1 Country profile

This subchapter would give a brief country profile in order to place the NIP strategies and action plans in a country-specific context. It would summarize information on geography and population, membership in regional and subregional organizations, the country's political and economic profile, profiles of potentially important economic sectors in the context of the POPs issue, and overall environmental conditions and priorities in the country.

2.2 Institutional, policy, and regulatory framework

This subchapter would describe the present overall institutional framework within which the NIP would be implemented. It would also cover more detailed baseline information about the POPs issue such as the status of action and implementation activities under related Conventions or regional and subregional agreements. It can also describe the participation of national sectors in NIP implementation.

2.2.1 Policy framework

2.2.2 Regulatory framework

2.2.3 Stakeholders roles

2.3 Assessment of the POPs issue in the country

This subchapter would contain specific information on POPs listed under the three annexes of the Stockholm Convention, including: historical, current, and projected future production, use, import, export and waste management; existing policy and regulatory framework.

2.3.1 Assessment of POPs pesticides (Annex A, Part I)

2.3.2 Assessment of PCBs (Annex A, Part II)

2.3.3 Assessment of POP-PBDEs (Annex A, Part IV and Part V), HBB (Annex A, Part I) and HBCD (Annex A, Part I and Part VII)

2.3.4 Assessment of HCBD (Annex A, Part I)

2.3.5 Assessment of PCNs (Annex A, part I)

2.3.6 Assessment with respect to DDT (Annex B, Part II)

- 2.3.7 Assessment of PFOS, its salts and PFOSF (Annex B, Part III)
- 2.3.8 Assessment of releases of unintentional produced chemicals (Annex C)
- 2.3.9 Information on the state of knowledge on stockpiles, contaminated sites and wastes, identification, likely numbers, relevant regulations, guidance, remediation measures, and data on releases from sites
- 2.3.10 Summary of future production, use, and releases of POPs – requirements for exemptions
- 2.3.11 Existing programmes for monitoring releases and environmental and human health impacts, including findings
- 2.3.12 Current level of information, awareness, and education among target groups; existing systems to communicate such information to the various groups;
- 2.3.13 Mechanism to report under Article 15 on measures taken to implement the provisions of the Convention and for information exchange with other Parties to the Convention
- 2.3.14 Relevant activities of non-governmental stakeholders
- 2.3.15 Overview of technical infrastructure for POPs assessment, measurement, analysis, alternatives and prevention measures, research and development – linkage to international programmes and projects
- 2.3.16 Overview of technical infrastructure for POPs management and destruction
- 2.3.17 Identification of impacted populations or environments, estimated scale and magnitude of threats to public health and environmental quality, and social implications for workers and local communities
- 2.3.18 Details of any relevant system for the assessment and listing of new chemicals
- 2.3.19 Details of any relevant system for the assessment and regulation of chemicals already in the market

Subchapter 2.3 would provide the current state of knowledge about POPs in a country. It should address each POP listed in the Annexes of the Convention and the various subject areas addressed in the Convention Articles, including inventory information, current technical, management and monitoring capacity, potential impacts, and the level of public awareness and concern.

2.4 Implementation status

In the case of NIP review and updating, this subchapter would summarize progress to date in implementing the initial and, where relevant, subsequent versions of the NIP.

3. Strategy and action plan elements of the national implementation plan

Chapter 3 would have two elements: a formal policy statement and the implementation strategy for the NIP. The implementation strategy would set out specific (updated or new, where relevant) action plans or strategies to achieve Convention obligations and any additional objectives set by the country.

3.1 Policy statement

This subchapter would outline the Government's commitment to addressing the POPs issue, including the formal adoption or endorsement of the NIP. It would also, if appropriate, define how the NIP would be integrated within the country's overall environmental policies and sustainable development strategy.

3.2 Implementation strategy

Subchapter 3.2 would detail the actions included in the NIP to meet the obligations of the Stockholm Convention. (It would include updated action plans to reflect progress made in implementation and to include additional newly listed POPs where relevant, and new additional action plans, objectives and priorities for newly listed POPs as necessary.) It would also outline a framework mechanism to coordinate discrete NIP activities including review, reporting, evaluation, revision, and updating of the NIP.

3.3 Action plans, including respective activities and strategies

- 3.3.1 Activity: Institutional and regulatory strengthening measures
- 3.3.2 Activity: Measures to reduce or eliminate releases from intentional production and use
- 3.3.3 Activity: Production, import and export, use, stockpiles, and wastes of Annex A POPs pesticides (Annex A, Part I chemicals)
- 3.3.4 Activity: Production, import and export, use, identification, labelling, removal, storage, and disposal of PCBs and equipment containing PCBs (Annex A, Part II chemicals)
- 3.3.5 Activity: Production, import and export, use, stockpiles, and wastes of hexaBDE and heptaBDE (Annex A, Part IV chemicals) and tetraBDE and pentaBDE (Annex A, Part V chemicals) (and HBB, where applicable)

(Annex A, Part I chemicals))

- 3.3.6 Activity: Production, import and export, use, stockpiles, and wastes of DDT (Annex B, Part II chemicals) if used in the country
- 3.3.7 Activity: Production, import and export, use, stockpiles, and wastes of PFOS, its salts and PFOSF (Annex B, Part III chemicals)
- 3.3.8 Activity: Register for specific exemptions and the continuing need for exemptions (Article 4)
- 3.3.9 Action plan: Measures to reduce releases from unintentional production (Article 5)
- 3.3.10 Activity: Identification and management of stockpiles, waste and articles in use, including release reduction and appropriate measures for handling and disposal (Article 6)
- 3.3.11 Activity: Identification of contaminated sites (Annex A, B, and C Chemicals) and, where feasible, remediation in an environmentally sound manner
- 3.3.12 Activity: Facilitating or undertaking information exchange and stakeholder involvement
- 3.3.13 Activity: Public and stakeholder awareness, information and education (Article 10)
- 3.3.14 Activity: Effectiveness evaluation (Article 16)
- 3.3.15 Activity: Reporting (Article 15)
- 3.3.16 Activity: Research, development and monitoring (Article 11)
- 3.3.17 Activity: Technical and financial assistance (Articles 12 and 13)

Subchapter 3.3 would list country-specific activities, action plans, and strategies, including those required by the Convention, designed to meet Convention obligations. Each would identify aims, actions, and needs (updated as appropriate). A logical framework matrix could be used to indicate steps in each area and clearly identify where work is needed. Additional measures beyond the minimum requirements would also be presented. The process for periodic review and updating would be explained.

3.4 Development and capacity-building proposals and priorities

Subchapter 3.4 would detail the priority areas where current capacity and capability need to be strengthened to achieve the objectives of the NIP. Priorities based on the need to meet Convention obligations and country priority issues would be highlighted.

3.5 Timetable for implementation strategy and measures of success

This subchapter would summarize the principal targets contained in the detailed strategy, outlining specific targets, milestones, and performance indicators to allow progress to be reviewed and monitored.

3.6 NIP implementation status

In the case of NIP review and updating, this subchapter would summarize progress to date in implementing the initial and, where relevant, subsequent versions of the NIP.

3.7 Resource requirements

Subchapter 3.6 would detail the projected costs of measures included in the NIP. Incremental costs for measures would be identified and potential sources of funding for both incremental costs and baseline costs would be noted. In accordance with Article 13 of the Convention, alternate sources of funding would be considered, as appropriate, by countries that are seeking development assistance.

Annexes

Annexes could be used to provide detailed background data and information, specific action plans, and other relevant information to meet the objectives of the NIP while keeping the main document clear and simple in structure. Such annexes might include:

- A1: Government and key stakeholder endorsement documents
- A2: Record of stakeholder and public consultation
- A3: Representative public information materials
- A4: Supporting information on chemicals
- A5: Details of relevant international and regional treaties
- A6: Country history in addressing the POPs issue/status of Convention implementation to date

Annex 11: Notes on Socio-economic Assessment

Background

A socio-economic assessment (SEA) is a systematic appraisal of the potential social impacts of economic or other activities such as the management of POPs on all sectors of society (including local communities and groups, civil society, private sector, and government). It is a means of analyzing and managing the intended and unintended social impacts, both positive and negative, of planned interventions (policies, programs, plans, and projects) and any social change processes invoked by those interventions.

Social impacts are the changes to individuals and communities that come about due to actions that alter the day-to-day way in which people live, work, play, relate to one another, organize to meet their needs, and generally cope as members of society.

Having assessed the potential impacts, an SEA assists in deciding on and choosing actions that are appropriate and correctly focused as well as monitoring their effectiveness. An SEA provides a basis for minimising the negative impact on populations and also in improving equitable outcomes for the most vulnerable groups.

Guidance on preparing an SEA for NIP development and implementation is available for Parties' use; see [Draft guidance on socio-economic assessment for national implementation plan development and implementation under the Stockholm Convention](#) (Secretariat of the Stockholm Convention, 2007).

In the context of managing POPs, social and economic impacts might include:

- Vulnerability arising from exposure to POPs.
- Deterioration or improvement in health.
- Loss or improvement in livelihoods.
- Changes in cost of living.
- Changes in employment, income, and workplace protection.
- Levels of child labour.
- Changes in levels of equity of wealth distribution.
- Opportunities for enterprise development (including Small and Medium Enterprises).
- Changes in demand for public services, such as health, education, and infrastructure.

National implementation plans and socio-economic assessment

When developing a NIP the following considerations need to be addressed and considered.

Impact on people as well as the environment

Much of the data informing decision-making in NIPs have been related to technical and scientific information about chemicals and the environment. An SEA ensures that people are brought into the equation and that the management of POPs takes into account the impact of proposed management strategies on the well-being of all sectors of a community, especially the most vulnerable. The data generated by an SEA will inform the NIP and implementation teams, enabling them to analyze, monitor, and manage the social consequences of action on POPs.

Obligations under the Stockholm Convention

References to an SEA can be found throughout the text of the Stockholm Convention, including in the preamble and annexes. Annex F on information on socio-economic considerations provides an indicative list of items to be taken into consideration by Parties when undertaking an evaluation regarding possible control measures for chemicals being considered for inclusion under the Convention.

General principles and practices guiding a socio-economic assessment

Taking into account Article 1 of the Stockholm Convention, the following principles and practices should guide the SEA:

- Link to national and regional strategies and programmes.
- Ensure equity of impact.

- Focus the SEA on the most significant impacts.
- Acknowledge the importance of qualitative and well as quantitative data.
- Involve diverse stakeholders.
- Use SEA practitioners and multidisciplinary teams.

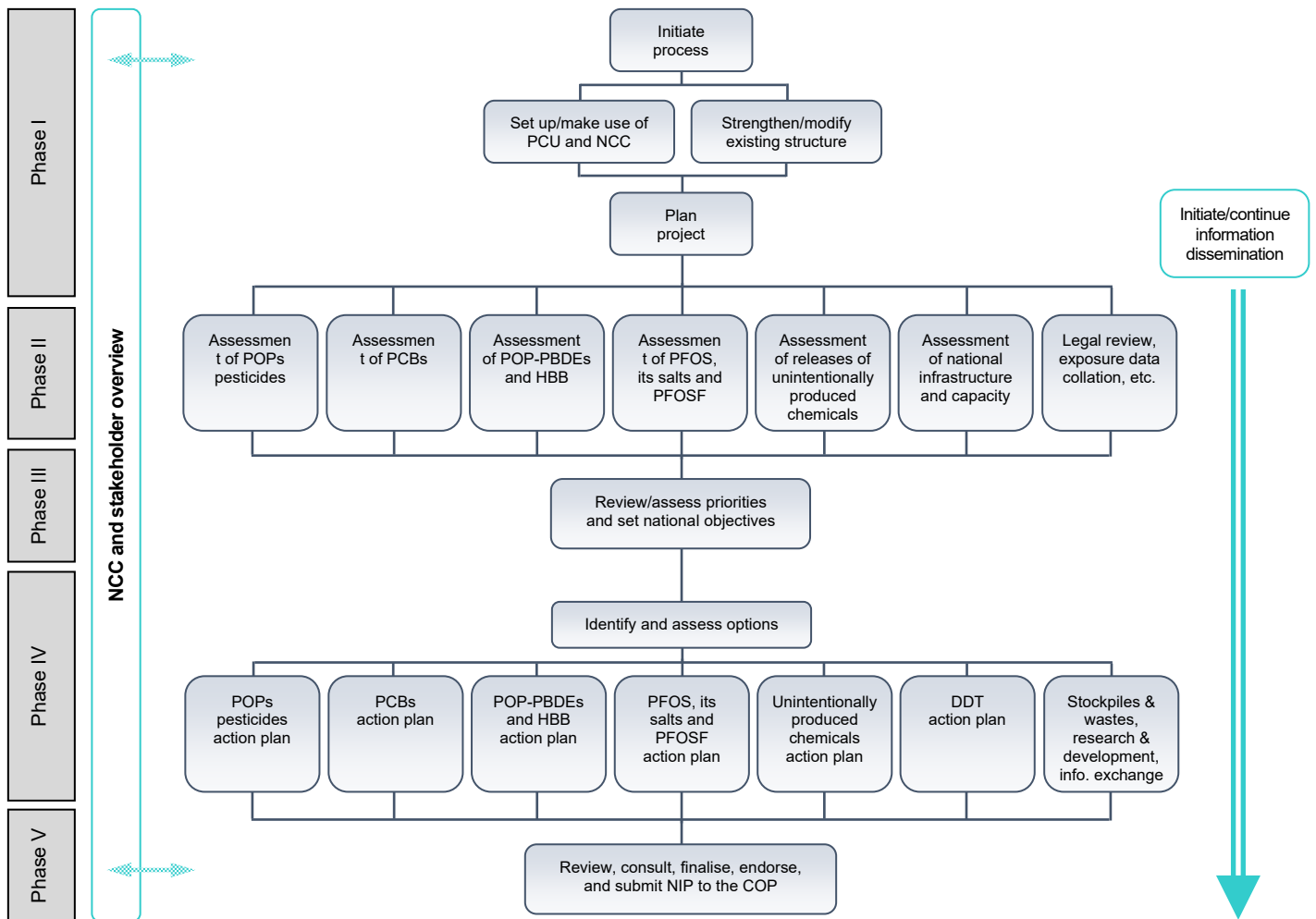
Main tools used in socio-economic assessment

- Stakeholder Analysis: a collection of tools or processes for identifying stakeholder groups and describing the nature of their stake, roles, and interests in POPs risk reduction and management.
- Sociological, Technological, Economic, and Political (STEP) Analysis: a dynamic, strategic planning tool that can be used at the outset of any management initiative for POPs and facilitates a review of the circumstances in which the initiative will take place.
- Social Risk Analysis: aims to establish thresholds or limits within which social groups can mitigate risk and withstand external shocks. Social Risk Analysis consists of question-type inputs into many tools (stakeholder analysis, livelihoods analysis, etc) facilitating an assessment of all major risks to the population, especially the poorest, most vulnerable groups.
- Consultation tools: are important in finding out how stakeholders perceive the impact of POPs management practices.
- Livelihoods Analysis: helps SEA specialists to gain a more informed understanding of the livelihoods of different stakeholder groups and the main ways in which the management of POPs affects them.
- Cost Benefit Analysis (CBA): an analytical approach to POPs options analysis in policy-level decision-making. It attempts to reduce all inputs (costs) and all positive impacts (benefits) to a single measure of money. Cost benefit analysis is based on the simple idea of comparing the costs of an action with the benefits of that action.
- Options Analysis: a collection of tools within the process of the Stockholm Convention NIP cycle that enables the Assessment team to filter initial concepts and ideas, gain a better understanding, build stakeholder ownership, and refine useful proposals and reject inappropriate ones.
- Logical Framework Analysis: a highly effective and useful tool for organizing a project, or a group of activities, around one common, single purpose. This tool is the basis for planning, monitoring, and evaluating a program for reducing POPs.

Relevant guidance

- [Draft guidance on socio-economic assessment for national implementation plan development and implementation under the Stockholm Convention](#) (Secretariat of the Stockholm Convention, 2007)

Annex 12: Process Flow Chart



Annex 13: Needs Assessment Reporting Format

Article	Nature of provision			Resources used in 2010–2014 (United States dollars)			Resources needed for 2015–2019 (United States dollars)			Grand total
				Baseline	Incremental	Total	Baseline	Incremental	Total	
3 and 4	Intentionally produced POPs	Pesticides	Annex A							
			Annex B							
		Industrial chemicals	Annex A							
			Annex B							
5	Unintentionally produced POPs		Annex C							
6	Stockpiles and wastes									
6.1 (e)	Contaminated sites									
7	Implementation plans									
8	Listing of new chemicals in Annexes A, B and C									
9	Information exchange									
10	Public information, awareness and education									
11	Research, development and monitoring									
12	Technical assistance									
13	Financial assistance									
15	Reporting									
16	Effectiveness evaluation									
Total										