GEF-6 MEDIUM SIZE PROJECT: INTEGRATED SC TOOLKIT TO IMPROVE THE TRANSMISSION OF INFORMATION UNDER ARTICLES 07 AND 15

Project component: Development and demonstration of an integrated Articles 7 and 15 electronic toolkit
Output 1.1. Gap analysis

Table of Contents

List of Tables

Executive summary

The current analysis is meant to identify and present the generic overlaps and gaps between data and information requested under the reporting pursuant Article 15 and other reporting obligations under the Stockholm Convention and the data and information generated during the NIP development and/or update process, as well as conclusions and recommendations on modalities to correlate the processes of reporting under Article 15 and other reporting obligations under the Stockholm Convention with the process of developing and updating the NIPs.

The analysis represents the baseline for development of an electronic toolkit that will be used to enhance compliance with the Stockholm Convention through improved transmission, accessibility and use of data contained in NIPs (Article 7) and National Reports (Article 15).

The development of the report has been completed in three steps:

1. Data and information identification, collection and classification - initial screening of the key documents on the subject;

2. Compilation and evaluation of data and information;

3. Review of the analysis and consultations.

Challenges were encountered in compiling and analyzing this information, resulting in some noteworthy limitations to the report and its findings. These challenges are related to the process of correlation of the data and information generated during the NIP development and update with the reporting obligations. The correlation was based on expert judgement and may have resulted in an oversight of information and data or on the contrary in an overappreciation of the coverage of information and data generated during NIP development and/or update over the reporting requirements.

The analysis revealed overlapping and gaps among Article 15 reporting requirements and the other reporting obligations under the Stockholm Convention (UPOPs, PCBs, POP-PBDEs, DDT and PFOS) and the information and data generated during the NIP development and/or update. The detailed overview of the analysis is included in the Annex I of this report.

Basically the analysis shows that majority of qualitative information and quantitative data requested to be reported under Article 15 and other reporting obligations under the Convention are to a large extent generated under the NIP development and/or update process, with few limitations.

The limitations refer either to the cases when the NIP generates the information and data to a limited level of detail than the one requested by the reporting obligations or when the NIP does not generate the information and data requested. The level of detail of the NIP information and data may differ from Party to Party and most of the time is not correlated with the reporting obligations.

The limited level of detail and the lack of information and/or data within the NIP were identified for the reporting obligations, as described within the sections 8.1 to 8.3 below.

Therefore, additional efforts from Parties to generate the information and data for complying with the reporting obligations under the Stockholm Convention are needed.

Thus, to overcome the current limitations in complying with the reporting obligations the analysis revealed that there is a need for considering a more integrative approach on the matter.

This integrative approach relates in principle to the fact that once data and information is generated at the national level, in this case during the NIP development and/or update, it should serve for multiple purposes and in particular for reporting under the Convention.

Such integrative approach not only may lead to enhanced effectiveness and efficiency of Convention implementation and but it may reduce the administrative burden and human and financial resources allocated in this sense.

But to consider the compliance with the obligations under the Convention in a more integrative manner, there is a need for streamlining and harmonizing the followings:

i) the format for Article 15 reporting requirements with the formats of the other reporting obligations under the Stockholm Convention;
ii) the format of the NIP development and/or update with the Article 15 reporting format;
iii) national mechanisms for NIP development and/or update with the NIP implementation and with the national mechanisms for reporting;
iv) reporting submissions time schedules.

In regard to streamlining and harmonizing the reporting formats, it is preferable to revise and update the Article 15 reporting format by inclusions of the POP-PBDEs, PFOS, its salts and PFOS-F and DDT reporting requirements, as currently several overlapping have been observed and will serve in avoiding doubling the efforts of Parties in generating the qualitative information and quantitative data needed. Therefore, one single reporting format under Article 15 to serve all reporting purposes is preferable. This can bring more consistency and coherence with the information and data to be reported and remove the existent imbalanced information and data requested among POPs.

Moreover, the need to correlate the the format of the NIP development and/or update with the Article 15 reporting format was also identified as crucial. As the NIP is one of the main sources of information and data generation, especially in the case of developing countries and countries with economies in transition, it should be targeted to generate all information and data to cover the reporting obligations under the Convention. This can only be achieved by correlating the respective two formats. For example, the few information gaps in the NIP (see chapter 8.1 and 8.2) could be easily added to the NIP development. The assessment of alternatives is to some extent included in the NIP update, but it would also be useful to include some information on the assessment of alternatives.

In terms of national mechanisms, the NIP development guidance document advices Parties to make use of the national mechanism created to update the NIP also for NIP implementation, but nothing is mentioned on how the reporting mechanism fits into this structure. It is preferable to create a

single national mechanism to serve all purposes e.g. NIP development and/or update, NIP implementation and reporting obligations compliance.

Concerning the discrepancies among the reporting submissions time schedules, these can be easily removed by matching the other reporting obligations under the Stockholm Convention with the Article 15 reporting deadline.

1. Introduction

Article 15 requires Parties to provide regular updates on progress in implementation of the SC through submission of National Reports every four years.

Article 7 of the Convention requires Parties to update their National Implementation Plans (NIPs) to address new persistent organic pollutants (POPs) as they are added to the Convention annexes. The fourth, fifth, sixth, seventh and eight Conference of Parties (COP) of the Stockholm Convention (SC) listed an additional seventeen chemicals, triggering the need for Parties to update their NIPs within the two years after the amendments entered into force for each Party.

The NIP and the National Reports submitted to the Stockholm Convention Secretariat under Articles 7 and 15 respectively are the key data sources used in the evaluation of the effectiveness of the implementation of the Stockholm Convention.

Because the objective of the Convention is to protect human health and the environment from POPs, an adequate indicator of the successful implementation of the Convention is the reduction and/or elimination of overall releases with consequent benefits for human health and the environment across the globe.

The low reporting rate by Parties has a direct impact on the analysis required under the Effectiveness Evaluation process as acknowledged in the Executive summary of the report on the effectiveness evaluation of the Stockholm Convention on Persistent Organic Pollutants: “a key challenge in undertaking this evaluation was the limited data available from national reports and NIPs”; (…) “Quantitative information on the production of POPs reported by Parties is extremely limited, such that it is not possible to discuss trends”.

The same report has concluded that the majority of the Parties that submitted national reports (64-95%) have successfully completed their NIPs, therefore highlighting that the two processes, NIP development/update and Art. 15 reporting, are interconnected.

The current analysis is meant to identify and present the generic overlaps and gaps between data and information requested under the reporting pursuant Article 15 and other reporting obligations under the Stockholm Convention and the data and information generated during the NIP development and/or update process, as well as conclusions and recommendations on modalities to correlate the processes of reporting under Article 15 and other reporting obligations under the Stockholm Convention with the process of developing and updating the NIPs.

The analysis represents the baseline for development of an electronic toolkit that will be used to enhance compliance with the Stockholm Convention through improved transmission, accessibility and use of data contained in NIPs (Article 7) and National Reports (Article 15).

2. Objectives and methodology

2.1 Objectives

The main objectives of the analysis are to identify and compile:

- ✓ the data and information, both qualitative and quantitative, requested to be included within the Article 15 reporting;
- ✓ the data and information, both qualitative and quantitative, requested to be included within other reports to be prepared under the Stockholm Convention (DDT, POP-PBDEs; PFOS, UPOPs);
- ✓ the data and information, both qualitative and quantitative, generated during the NIP development and/or update;
- ✓ the overlapping and gaps between the data and information requested to be included within the Article 15 reporting and the data and information generated during the NIP development and/or update;
- ✓ the overlapping and gaps between the data and information requested to be included within other reporting obligations under the Stockholm Convention (DDT, POP-PBDEs; PFOS, UPOPs) and the data and information generated during the NIP development and/or update;
- ✓ an overview of the mechanism for reporting and time schedule of all reporting obligations under Stockholm Convention;
- ✓ conclusions and recommendations on modalities to correlate the processes of reporting under Article 15 and other reporting obligations under the Stockholm Convention with the process of developing and updating the NIP.

2.2 Methodology

2.2.1 Approach

The development of the report is being completed in three steps (details provided below):

1. Data and information identification, collection and classification - initial screening of the key documents on the subject;

2. Compilation and evaluation of data and information;

3. Review of the analysis and consultations.

2.2.2 Data and information collection and classification

The first step towards the compilation of the gap analysis focused on the identification, collection and classification of available data and information on the subject.

First, a preliminary identification of key sources of data and information was conducted and approaches for data collection were developed. Then, the identified key sources of data and

information were screened and reviewed.

The main sources of information and data identified are presented in the table below.

Table 1. Reference documents screened for the identification of the qualitative information and quantitative data

Reporting obligation	Reference documents
Article 15 reporting	✓ Electronic Reporting System of the Stockholm Convention - Fourth reporting cycle questionnaire;
NIP	✓ Guidance for Developing a National Implementation Plan (NIP); ✓ FAO Technical Guidelines: FAO Pesticide Disposal Series: Environmental Managment Tool Kit for Obsolete Pesticides(EMTK) – Volumes 1 - 4; ✓ Toolkit for the sound management of DDT for disease vector control; ✓ Guidelines for the identification of PCBs and materials containing PCBs; ✓ PCB inventory guidance (PCB Elimination Network); ✓ Preparation of a National Environmentally Sound Management Plan for PCBs and PCB-Contaminated Equipment - Training Manual; ✓ Updated 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); ✓ Updated general technical guidelines for the environmentally sound management of wastes consisting of, containing or contaminated with persistent organic pollutants (POPs); ✓ PCB management guidance - Maintenance, Handling, Transport and Interim Storage of Liquids Containing PCB and Equipment Contaminated with PCB (PCB Elimination Network, June 2016); ✓ Framework for the management of PCBs; ✓ PCB Transformers and Capacitors - From Management to Reclassification and Disposal; ✓ Open systems uses of PCBs; ✓ Factsheet on Open Applications: Machinery and Installations; ✓ Photo Booklet on Open Applications; ✓ Factsheet on Open Applications: Residential and Public Buildings;

	✓ Draft guidance for the inventory of perfluorooctane sulfonic acid (PFOS) and related chemicals; ✓ Draft guidance for the inventory of polybrominated diphenyl ethers (PBDEs); ✓ Guidance for the inventory, identification and substitution of Hexabromocyclododecane (HBCD); ✓ Draft guidance on preparing inventories of hexachlorobutadiene (HCBD); ✓ Draft guidance on preparing inventories of pentachlorophenol (PCP) and its salts; ✓ Draft guidance on preparing inventories of polychlorinated naphthalenes (PCN);
UPOPs	✓ Toolkit for Identification and Quantification of Releases of Dioxins, Furans and Other Unintentional POPs (Toolkit);
PBDEs	✓ Format for the submission of information for the evaluation and review of brominated diphenyl ethers pursuant to paragraph 2 of parts IV and V of Annex A to the Stockholm Convention;
DDT	✓ Questionnaire for reporting by each Party on production and use of DDT for disease vector control and for reporting other information relevant to the evaluation of the continued need for DDT for disease vector control;
PFOS	✓ Form for the collection of information on PFOS, its salts, PFOSF and their related chemicals to be used in the evaluation of the continued need for the various acceptable purposes and specific exemptions.

2.2.3 Compilation and evaluation of data and information

The collected information was then classified based on the following two main criteria:

(i) Stockholm Convention obligation (Article 15 reporting, other reporting obligations, NIP development and/or update);
(ii) qualitative information and quantitative data.

In order to identify overlapping and gaps, the data and information requested to be reported pursuant the Article 15 and other reporting obligations under the Stockholm Convention were compared against the data and information which would have been generated during the NIP development and/or update, if the guidance documents recommendations would have been considered in their entirety.

The data and information collected considered the POPs substances listed up to 2015, inclusive.

2.2.4 Review of the assessment and consultations

An additional step in the data and information evaluation includes consultations on the preliminary results with BRS Secretariat. For this purpose, a draft has been circulated for comments and additional input. The above-mentioned comments were addressed and, to the extent possible, incorporated in this version of the document.

2.2.5 Challenges and limitations

The report seeks to present existing overlapping and gaps among the data and information requested to be reported pursuant the Article 15 and other reporting obligations under the Stockholm Convention and the data and information generated during the NIP development and/or update process.

Challenges were encountered in compiling and analyzing this information, resulting in some noteworthy limitations to the report and its findings.

These challenges are related to the process of correlation of the data and information generated during the NIP development and update with the reporting obligations.

The correlation was based on expert judgement and may have resulted in an oversight of information and data or on the contrary in an overappreciation of the coverage of information and data generated during NIP development and/or update over the reporting requirements.

3. Data and information requested to be included within the Article 15 reporting

3.1 General information

Pursuant to the provisions of Article 15 – Reporting each Party shall report to the Conference of the Parties on the measures it has taken to implement the provisions of this Convention and on the effectiveness of such measures in meeting the objectives of the Convention.

Each Party shall provide to the Secretariat:

- ✓ Statistical data on its total quantities of production, import and export of each of the chemicals listed in Annex A and Annex B or a reasonable estimate of such data; and
- ✓ To the extent practicable, a list of the States from which it has imported each such substance and the States to which it has exported each such substance.

Such reporting shall be at periodic intervals and in a format to be decided by the Conference of the Parties at its first meeting. The Conference of the Parties (COP) decided at its first meeting that, national reports shall be submitted every four years. In order to enable the interpretation and comparison of trends, it is important that Parties complete their national reports in a timely and accurate manner. Each Party designates an Official Contact Point who has the authority to submit a national report to the Secretariat. At its second meeting, the COP requested the Secretariat to develop an online electronic reporting system (SC-ERS). The Secretariat established the SC-ERS and it was made available to Parties for use during the first reporting period. At its sixth meeting, in decision SC-6/21, the COP requested the Secretariat to further improve the SC-ERS, taking into account possible synergies with the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, and in time for it to be used by parties for the submission of their third national reports due in 2014. In response to the request from the COP, the Secretariat has updated and enhanced the SC-ERS in order to accommodate the updated format for the national report as adopted by the Conference of the Parties (COP) at its sixth meeting. In addition, the SC-ERS has been improved in order to make it more user-friendly and resourceful. The updated SC-ERS is available and may be used by parties since 2014 (Stockholm Convention website 2018).

In 2018 the SC-ERS was updated with the changes required in the questionnaire for the 4th reporting cycle, with a deadline on 31 August 2018 (Stockholm Convention website). The questionnaire for the 4th reporting cycle it is structured as presented in the table below.

Table 2. Structure of the questionnaire for the 4th reporting cycle pursuant Article 15

Part	Section
Part A: General information	

Part B: Information on the measures taken by the Party to implement the provisions of the Stockholm Convention and on the effectiveness of such measures in meeting the objectives of the Convention	Section I. Article 7: Implementation plans
	Section II. Article 3: Measures to reduce or eliminate releases from intentional production and use
	Section III. Article 4: Register of specific exemptions; Annex A and Annex B
	Section IV. Article 5: Measures to reduce or eliminate releases from unintentional production (PCDD/PCDF)
	Section IV. Article 5: Measures to reduce or eliminate releases from unintentional production (PCBs)
	Section IV. Article 5: Measures to reduce or eliminate releases from unintentional production (PeCBz)
	Section IV. Article 5: Measures to reduce or eliminate releases from unintentional production (HCB)
	Section IV. Article 5: Measures to reduce or eliminate releases from unintentional production (PCN)
	Section IV. Article 5: Measures to reduce or eliminate releases from unintentional production (BAT/BEP)
	Section V. Article 6: Measures to reduce or eliminate releases from stockpiles and wastes
	Section VI. Information required in paragraph 2 of Article 15 of the Convention
	Section VII. Article 9: Information exchange
	Section VIII. Article 10: Public information, awareness and education
	Section IX. Article 11: Research, development and monitoring
	Section X. Article 12: Technical assistance
	Section XI. Article 13: Financial resources and mechanisms
Part C: Information on progress in eliminating polychlorinated biphenyls (PCB) in accordance with subparagraph (g) of Part II of Annex A to the Convention	Section I. Article 6: Measures to reduce or eliminate releases from stockpiles and wastes
	Section II. Part II of Annex A: Polychlorinated biphenyls
	Section III. Information on local destruction and import and export of PCB for destruction. Local destruction of PCB, in accordance with

	paragraph 1 d (ii) of Article 6 of the Convention
Part D: Information specifically on the progress made in eliminating perfluorooctane sulfonic acid, its salts and perfluorooctane sulfonyl fluoride in accordance with paragraph 3 in Part III of Annex B to the Convention	
Part E: Additional information and comments	

Source: Stockholm Convention Secretariat 2018

3.2 Qualitative information

For the identification of the qualitative information requested to be reported pursuant Article 15 of the Stockholm Convention, the last version of the questionnaire developed by the Stockholm Convention Secretariat was screened and information presented in the table below.

Table 3. Qualitative information requested to be reported pursuant Article 15

Part	Section	Qualitative information
Part A: General information		✓ Official Contact Point and National Focal Point; ✓ Date of submission and name of the submitter;
Part B: Information on the measures taken by the Party to implement the provisions of the Stockholm Convention and on the effectiveness of such measures in meeting the objectives of the Convention	Section I. Article 7: Implementation plans	✓ the status of development, update and transmission of NIP; ✓ financial assistance received, as well as the GEF Agency providing the assistance; ✓ NIP review and update triggers;
	Section II. Article 3: Measures to reduce or eliminate releases from intentional production and use	✓ legal and administrative measures necessary to eliminate releases from intentional production and use of chemicals listed in Annex A, or restrict the production and use of the chemicals listed in Annex B to the Convention; ✓ measures to regulate new pesticides or new industrial chemicals (i.e. chemicals that have not yet been introduced in the market or registered in the country); ✓ consideration the criteria in paragraph 1 of Annex D when conducting

		assessments of pesticides or industrial chemicals currently in use;
	Section III. Article 4: Register of specific exemptions; Annex A and Annex B	✓ notification of the Secretariat to register for specific exemptions listed in Annex A or Annex B or for acceptable purposes listed in Annex B;
	Section IV. Article 5: Measures to reduce or eliminate releases from unintentional production (PCDD/PCDF)	✓ developing, reviewing and updating of an action plan designed to identify, characterize and address the release of the chemicals listed in Annex C (information on status, year, difficulties encountered, participation in any regional or sub-regional action plan); ✓ development of source inventories and release estimates of the chemicals listed in Annex C to the Convention taking into consideration the source categories identified in Annex or difficulties encountered (information on status or difficulties encountered);
	Section IV. Article 5: Measures to reduce or eliminate releases from unintentional production (BAT/BEP)	✓ undertaking an evaluation of the efficacy of the laws and policies adopted to manage releases of unintentionally produced persistent organic pollutants (information on status and year); ✓ promoting or introducing requirements for use of best available techniques (BAT) and best environmental practices (BEP) for new sources and existing sources (information on status and year for new and existing sources);
	Section V. Article 6: Measures to reduce or eliminate releases from stockpiles and wastes	✓ developing strategies for identifying stockpiles consisting of, or containing, chemicals listed in either Annex A or Annex B to the Convention (information on status, year, type of chemical, difficulties encountered); ✓ identification of stockpiles consisting of, or containing, chemicals listed in Annex A or Annex B to the Convention (information on status, year, type of chemical); ✓ quantification the stockpiles consisting of, or containing, chemicals listed in Annex A or Annex

		B to the Convention (information on status, year, type of chemical); ✓ measures to manage stockpiles in a safe, efficient and environmentally sound manner (information on status, year, type of chemical); ✓ developing strategies for identifying products and articles in use and wastes consisting of, containing, or contaminated with chemicals listed in Annex A, B or C (information on status, year, type of chemical or difficulties encountered); ✓ measures to manage wastes, including products and articles upon becoming wastes (information on status, year, type of chemical); ✓ disposing of wastes consisting of or containing chemicals listed in Annex A, B, or C to the Convention in an environmentally sound manner (information on status, year, type of chemical or difficulties encountered); ✓ developing strategies for identifying sites contaminated by chemicals listed in Annex A, B or C (information on status, year, type of chemical); ✓ identification of sites contaminated by chemicals listed in Annex A, B or C (information on status, year, type of chemical); ✓ taking steps to remediate the sites contaminated by chemicals listed in Annex A, B or C (information on status, year or difficulties encountered);
	Section VI. Information required in paragraph 2 of Article 15 of the Convention	✓ submission of a report on the production and use of DDT in a format provided by the Secretariat (information on status and year);
	Section VII. Article 9: Information exchange	✓ establishing an information exchange mechanism (information on status and year);
	Section VIII. Article 10: Public information, awareness and education	✓ measures to implement Article 10 of the Convention (information on status, year, type of public information, awareness and education or difficulties encountered);

	Section IX. Article 11: Research, development and monitoring	✓ undertaking any research, development, and monitoring and cooperation pertaining to persistent organic pollutants, and where relevant, to their alternatives and to candidate persistent organic pollutants (information on status, type of action, year, type of activity or difficulties encountered);
Part C: Information on progress in eliminating polychlorinated biphenyls (PCB) in accordance with subparagraph (g) of Part II of Annex A to the Convention	Section I. Article 6: Measures to reduce or eliminate releases from stockpiles and wastes	✓ developing strategies for identifying stockpiles consisting of or containing greater than 0.005% (50 ppm) PCB (information on status, year, types of elements included in the strategies); ✓ developing strategies for identifying products and articles in use and wastes consisting of, containing or contaminated with greater than 0.005% (50 ppm) PCB (information on status, year, types of elements included in the strategies); ✓ developing strategies for identifying products and articles containing more than 0.005% (50 ppm) PCB contaminated through open applications of PCB (e.g. cable-sheaths, cured caulk and painted objects) (information on status, year, types of elements included in the strategies); ✓ taking any measures to ensure PCB or products and articles containing greater than 0.005% (50 ppm) PCB identified as wastes are managed in an environmentally sound manner (information on status, year, types of measures); ✓ developing strategies for identifying sites contaminated by greater than 0.005% (50 ppm) PCB (information on status and year); ✓ identification of sites contaminated by greater than 0.005% (50 ppm) PCB (information on status and year);
	Section II. Part II of Annex A: Polychlorinated biphenyls	✓ taking measures to identify and label, where appropriate, equipment in use containing greater than 0.005% (50 ppm) PCB (information on status, year, types of measures); ✓ taking measures to identify and/or label, where appropriate, wastes

		liable to contain greater than 0.005% (50 ppm) PCB (information on status, year, types of measures); ✓ taking measures to identify articles containing more than 0.005% (50 ppm) PCB contaminated through open applications of PCB (e.g. cable-sheaths, cured caulk and painted objects) (information on status, year, types of measures); ✓ development of a specific plan for the management, phase-out and disposal of PCB (information on status, year or difficulties encountered); ✓ promoting any measures to reduce exposures from the use of PCB (information on status, year and types of measures); ✓ undertaking an inventory of PCB in equipment (e.g. transformers, capacitors or other receptacles containing liquid stocks), articles, oils and waste (information on status, type of inventory preliminary/complete or difficulties encountered);
Part D: Information specifically on the progress made in eliminating perfluorooctane sulfonic acid, its salts and perfluorooctane sulfonyl fluoride in accordance with paragraph 3 in Part III of Annex B to the Convention		✓ registering for any of the specific exemptions related to PFOS listed in Annex B to the Convention (information on status and type of specific exemption); ✓ registering for any of the acceptable purposes related to PFOS listed in Annex B to the Convention (information on status and type of acceptable purpose); ✓ reviewing the continued need for the specific exemption(s) and/or acceptable purpose(s) (information on status and details of review); ✓ development and implementation of an action plan with the goal of reducing and ultimately eliminating the production and/or use of PFOS, as Parties are encouraged to do in accordance with paragraph 4 (b) of Part III of Annex B (information on status and year); ✓ actions to phase out the use of PFOS as safer alternative substances or methods have become available, as Parties are encouraged to do in

		accordance with paragraph 4 (a) of Part III of Annex B (information on status, types of alternative substances or methods or difficulties encountered); ✓ taking action to promote research on and development of safe alternative chemicals and non-chemical products and processes, methods and strategies to the use of PFOS as parties are encouraged to do so in accordance with paragraph 4 (c) of Part III of Annex B (information on status, types of actions or difficulties encountered); ✓ taking action to build the capacity to transfer safely to reliance on alternatives to PFOS, its salts and PFOSF in accordance with paragraph 5 (d) of Part III of Annex B (information on status or difficulties encountered);

3.3 Quantitative data

In order to identify the quantitative information requested to be reported pursuant Article 15 of the Stockholm Convention, the last version of the questionnaire developed by the Stockholm Convention Secretariat was screened and information presented in the table below.

Table 4. Quantitative data requested to be reported pursuant Article 15

Part	Section	Quantitative data
Part B: Information on the measures taken by the Party to implement the provisions of the Stockholm Convention and on the effectiveness of such measures in meeting the objectives of the Convention	Section IV. Article 5: Measures to reduce or eliminate releases from unintentional production (PCDD/PCDF)	✓ source inventories and release estimates of PCDD/PCDF;
	Section IV. Article 5: Measures to reduce or eliminate releases from unintentional production (PCBs)	✓ source inventories and release estimates of PCBs;
	Section IV. Article 5: Measures to reduce or eliminate releases from unintentional production (PeCBz)	✓ source inventories and release estimates of PeCBz;
	Section IV. Article 5: Measures to reduce or eliminate releases	✓ source inventories and release estimates of HCB;

	from unintentional production (HCB)	
	Section IV. Article 5: Measures to reduce or eliminate releases from unintentional production (PCN)	✓ source inventories and release estimates of PCN;
	Section VI. Information required in paragraph 2 of Article 15 of the Convention	✓ producing any of the chemicals listed in Annex A or Annex B to the Convention (information on type of chemical, year in which the production started/ended and estimated total production [kg]); ✓ exporting any of the chemicals listed in Annex A or Annex B to the Convention (information on year, type of chemical, purpose, destination country and total annual export (kg/year)); ✓ importing any of the chemicals listed in Annex A or Annex B to the Convention (information on year, type of chemical, purpose, country of origin and total annual import (kg/year));
	Section X. Article 12: Technical assistance	✓ providing technical assistance to another Party (information on status, year, type of technical assistance and total value (US$)); ✓ receiving technical assistance in accordance with Article 12 of the Convention (information on status, year, type of technical assistance and total value (US$));
	Section XI. Article 13: Financial resources and mechanisms	✓ undertaking to provide, within the capabilities, financial support and incentives in respect of those national activities that are intended to achieve the objectives of the Convention in accordance with national plans, priorities and programmes (information on status, year, total value (US$) for financial support and types of incentives); ✓ providing financial resources to enable developing country Parties and Parties with economies in transition to fulfill their obligations under the Convention (information on status, year, sources or channels through which the resources have

		been provided, total amount per year (US$), recipients (region/Party)); ✓ providing financial resources in accordance with the capabilities and in accordance with national plans, priorities and programmes, to assist developing countries and countries with economies in transition in their implementation of the Convention through other bilateral, regional and multilateral sources or channels (information on status, year, sources or channels through which the resources have been provided, total amount per year (US$), recipients (region/Party));
Part C: Information on progress in eliminating polychlorinated biphenyls (PCB) in accordance with subparagraph (g) of Part II of Annex A to the Convention	Section II. Part II of Annex A: Polychlorinated biphenyls	✓ identification of articles and materials containing more than 0.005% (50 ppm) PCB contaminated through open applications of PCB (data on type of article and year/period); ✓ proportion of waste containing greater than 0.005% (50 ppm) PCB identified in the country managed in an environmentally sound manner (data on proportion of articles identified, year in which the environmentally sound management was completed and proportion of waste environmentally sound managed); ✓ equipment containing greater than 10% (100,000 ppm) PCB and volumes greater than 5 litres (status of equipment, year of inventory, number of equipment, total mass of equipment [kg], mass of solid parts of equipment (equipment without oil) [kg], mass of liquids (oil) [kg], PCB content in oil (%) and total mass (kg)); ✓ equipment containing greater than 0.05% (500 ppm) PCB and volumes greater than 5 litres (status of equipment, year of inventory, number of equipment, total mass of equipment [kg], mass of solid parts of equipment (equipment without oil) [kg], mass of liquids (oil) [kg],

		PCB content in oil (%) and total mass (kg)); ✓ equipment containing greater than 0.005% (50 ppm) PCB and volumes greater than 0.05 litres (status of equipment, year of inventory, number of equipment, total mass of equipment [kg], mass of solid parts of equipment (equipment without oil) [kg], mass of liquids (oil) [kg], PCB content in oil (%) and total mass (kg)); ✓ equipment containing an undefined concentration of PCB (status of equipment, year of inventory, number of equipment, total mass of equipment [kg], mass of solid parts of equipment (equipment without oil) [kg], mass of liquids (oil) [kg], PCB content in oil (%) and total mass (kg)); ✓ stored liquids (oil) containing PCB (status of equipment, year of inventory, number of equipment, total mass of equipment [kg], mass of solid parts of equipment (equipment without oil) [kg], mass of liquids (oil) [kg], PCB content in oil (%) and total mass (kg)); ✓ other wastes containing PCB (status of equipment, year of inventory, number of equipment, total mass of equipment [kg], mass of solid parts of equipment (equipment without oil) [kg], mass of liquids (oil) [kg], PCB content in oil (%) and total mass (kg));
	Section III. Information on local destruction and import and export of PCB for destruction. Local destruction of PCB, in accordance with paragraph 1 d (ii) of Article 6 of the Convention	✓ statistical data of locally destroyed, in an environmentally sound manner, of equipment, liquids, or other wastes containing greater than 0.005% (50 ppm) PCB (e.g. transformers, capacitors or other receptacles containing liquid stocks) (type of PCB, year and quantity (Metric Tons)); ✓ statistical data of imported equipment, liquids, or other wastes containing greater than 0.005% (50 ppm) PCB for environmentally

		sound destruction (type of PCB, year and quantity (Metric Tons)); ✓ statistical data of exported equipment, liquids, or other wastes containing greater than 0.005% (50 ppm) PCB (e.g. transformers, capacitors or other receptacles containing liquid stocks) for environmentally sound destruction (type of PCB, year and quantity (Metric Tons));
Part D: Information specifically on the progress made in eliminating perfluorooctane sulfonic acid, its salts and perfluorooctane sulfonyl fluoride in accordance with paragraph 3 in Part III of Annex B to the Convention		✓ statistical data on production of PFOS for the acceptable purposes listed in Annex B of the Convention (status, year, type of acceptable purpose and estimated total production (kg)); ✓ statistical data on production of PFOS for the specific exemptions listed in Annex B of the Convention (status, year, type of specific exemption and estimated total production (kg)); ✓ statistical data on use of PFOS for the acceptable purposes listed in Annex B of the Convention (status, year, type of acceptable purpose and estimated total production (kg)); ✓ statistical data on use of PFOS for the specific exemptions listed in Annex B of the Convention (status, year, type of specific exemption and estimated total production (kg));

4. Data and information generated during the NIP development and/or update

4.1 General information

Parties to the Stockholm Convention are required to prepare a plan explaining how they are going to implement the obligations under the Convention and make efforts to put such a plan into operation (Article 7). The NIP is not a standalone plan for the management of POPs but should be closely tied to the national sustainable development strategy of the Party preparing and implementing such a plan (Stockholm Convention website 2018).

A series of COP decisions have given directions to the Secretariat on how to assist Parties in the development of their NIP, essentially through the development of guidance documents (Stockholm Convention website 2018).

Various guidance documents have been developed to support Parties in developing, reviewing, updating and implementing their NIPs. These documents range from providing general guidance on how to develop, review or update a NIP to more focused assistance such as on how to build inventories for certain POPs or to use best available techniques or best environmental practices (BAT/BEP) during the implementation phase of the NIP (Stockholm Convention website 2018)).

Parties are encouraged to use the available guidance and invited every two years to provide comments based on their experience to improve the usefulness of these guidance documents. The revised and updated guidance documents addressing the comments received from the Parties and other stakeholders have been reflected and were presented to the meeting of the Conference of the Parties held in April 2017 (Stockholm Convention website 2018).

4.2 Qualitative information

As a result of the guidance documents screening, the relevant qualitative information generated during NIP development and/or update is as presented in the table below.

Table 5. Qualitative information generated during NIP development and/or update

Chapter/sub-chapter	Sub-chapter	Qualitative information
1. Introduction		✓ the status of development, update and transmission of NIP; ✓ financial assistance received, as well as the GEF Agency providing the assistance; ✓ NIP review and update triggers;
2. Country baseline	**2.1 Country profile**	✓ summary information on geography and population, membership in regional and sub-regional 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	✓ description of institutional, policy and regulatory frameworks;
	2.3 Assessment of the POPs issue in the country	
	2.3.1 Assessment of POPs pesticides (Annex A, Part I)	✓ legal and institutional framework for control of the production, use, import, export and environmentally sound management and disposal of the pesticides, listed in Annexes A and B of the Convention, including for contaminated sites; ✓ suitable alternative products, methods and strategies to the POPs pesticides; ✓ necessity to register for the allowed specific exemptions for POPs pesticides; ✓ data gaps and deficiencies in the knowledge on POPs pesticides; ✓ disposal and destruction options for POPs pesticides stockpiles and wastes; ✓ sites potentially contaminated with POPs pesticides;
	2.3.2 Assessment of PCBs (Annex A, Part II)	✓ legal, institutional, regulatory, and enforcement systems for PCBs management, including for contaminated sites; ✓ possibilities for integration of the management of PCB-containing articles in the overall waste management; ✓ condition and operation of PCB-containing equipment; ✓ suitable controls on the movement, maintenance, and handling of any equipment containing PCBs; ✓ availability of appropriate waste management systems; ✓ appropriate and effective monitoring and reporting of PCB equipment use, movement, sale, and disposal; ✓ data gaps and deficiencies in the knowledge on for PCBs management; ✓ disposal and destruction options for PCBs stockpiles and wastes; ✓ sites potentially contaminated with PCBs;
	2.3.3 Assessment of POP-PBDEs (Annex A, Part IV	✓ legal, institutional, regulatory, and enforcement systems for management, recycling and end-of-life treatment of

	and Part V), HBB (Annex A, Part I)	POP-PBDE-containing materials (in particular electric and electronic equipment and vehicles and related wastes), including for contaminated sites; ✓ necessity to register for the specific exemption on recycling of articles that contain or may contain POP-PBDEs and use of articles manufactured from recycled materials that contain or may contain POP-PBDEs; ✓ articles in use that contain or may contain brominated diphenyl ethers (information on types of articles); ✓ products and articles containing POP-PBDEs in the recycling streams (information on types of articles); ✓ possible extent of recycling; ✓ types of articles produced from recycling; ✓ availability of appropriate recycling facilities and a labelling system marking the presence of POP-PBDEs; ✓ availability of appropriate waste management systems; and end-of-life treatment; ✓ existence of appropriate and effective monitoring and reporting of POP-PBDE-containing materials, equipment use, movement, sale, and disposal. ✓ BAT/BEP implementation for the recycling and waste disposal of articles containing POP-PBDEs; ✓ data gaps and deficiencies in the knowledge of POP-PBDE-containing material streams and their management; ✓ disposal and destruction options for POP-PBDE containing articles and materials; ✓ concept for the integration of the management of POP-PBDE-containing articles and materials (WEEE, vehicles, possibly furniture) in the overall management of these material flows or possibilities for integration of the management of materials and articles containing POP-PBDEs (re-use, recycling, and disposal) in the overall waste management flows (e.g. EEE/WEEE, transport sector, furniture, polymer recycling) considering the overall concept of sustainable production and consumption;

		✓ sites potentially contaminated with POP-PBDEs;
	2.3.3 HBCD (Annex A, Part I and Part VII)	✓ legal, institutional and regulatory systems for the management of HBCD and materials containing HBCD, including for contaminated sites; ✓ necessity to register for the specific exemption on production and use of HBCD in expanded polystyrene and extruded polystyrene in buildings; ✓ BAT/BEP implementation for the production and use of HBCD; ✓ possibilities for integration of the management of HBCD-containing articles and materials in the overall waste management; ✓ alternatives to HBCD in insulation materials in buildings; ✓ data gaps and deficiencies in the knowledge of HBCD-containing material streams and their management; ✓ disposal practices for products and articles containing HBCD when they become wastes; ✓ sites potentially contaminated with HBCD;
	2.3.4 Assessment of HCBD (Annex A, Part I)	✓ legal, institutional and regulatory systems for the management of HCBD and materials containing HCBD, including for contaminated sites; ✓ data gaps and deficiencies in the knowledge of HCBD-containing material streams and their management; ✓ disposal practices for products and articles containing HCBD when they become wastes; ✓ sites potentially contaminated with HCBD;
	2.3.5 Assessment of PCNs (Annex A, part I)	✓ legal, institutional and regulatory systems for the management of PCNs and materials containing PCNs, including for contaminated sites; ✓ necessity to register for the specific exemption on production and use of PCNs in the production of polyfluorinated naphthalenes, including octafluoronaphthalene; ✓ alternatives to PCNs; ✓ data gaps and deficiencies in the knowledge of PCN-containing material streams and their management; ✓ disposal practices for products and articles containing PCN when they become wastes;

		✓ sites potentially contaminated with PCNs;
	2.3.6 Assessment with respect to DDT (Annex B, Part II)	✓ See information on sub-chapter 2.3.1 ✓ production facility and location; ✓ DDT repackaged/reformulated in the country; ✓ DDT exported/imported; ✓ DDT stocks in use; ✓ DDT use for disease vector control; ✓ DDT use for any other purpose besides disease vector control; ✓ disease and main vector species targeted by DDT used for disease vector control;
	2.3.7 Assessment of PFOS, its salts and PFOSF (Annex B, Part III)	✓ legal, institutional, regulatory, and enforcement systems for PFOS and related chemicals and articles and materials containing PFOS and related chemicals, including for contaminated sites; ✓ types of the PFOS, its salts and PFOSF produced, exported, imported, exported and used; ✓ purpose of the production, import, export and use; ✓ necessity to register for the allowed PFOS and related chemicals specific exemptions and acceptable purposes; ✓ types of used articles that are manufactured from PFOS-containing materials; ✓ types of disposed articles that are manufactured from PFOS-containing materials; ✓ 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; ✓ BAT/BEP implementation for the use of PFOS and related chemicals; ✓ data gaps and deficiencies in the knowledge of PFOS-containing material streams and input to their management and strategy to address these shortcomings; ✓ disposal and destruction options for PFOS-containing articles; ✓ experiences of using PFOS alternatives in the areas of the allowed acceptable purposes and specific exemptions; ✓ sites potentially contaminated with PFOS and related chemicals.

	2.3.8 Assessment of releases of unintentional produced chemicals (Annex C)	✓ existing laws and policies relating to the management of releases of unintentional produced chemicals and their effectiveness and deficiencies; ✓ integrating the reduction of unintentionally POPs with other activities in the respective sectors (waste/resource management, clean production); ✓ implementation of BAT/BEP within the industries and facilities listed in Annex C; ✓ sites potentially contaminated with U-POPs.
	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	✓ strategies for identifying products and articles in use consisting of, or containing, chemicals listed in either Annex A or Annex B to the Convention; ✓ strategies for identifying stockpiles consisting of, or containing, chemicals listed in either Annex A or Annex B to the Convention; ✓ strategies for identifying waste consisting of, or containing, chemicals listed in either Annex A or Annex B to the Convention; ✓ measures to identify and label, where appropriate, POP-containing products and articles in use; ✓ measures to identify and label, where appropriate, waste containing POPs; ✓ measures to identify and label, where appropriate, POPs in open applications; ✓ measures to manage products, articles, stockpiles and wastes in a safe, efficient and environmentally sound manner; ✓ system(s) for management of stockpiles and wastes; ✓ measures and modalities of storage, labeling, handling, transportation of products and articles, stockpiles and waste; ✓ progress in eliminating the POPs listed in Annexes A and/or B; ✓ strategies for identifying sites contaminated by chemicals listed in Annex A, B or C; ✓ system for management of contaminated sites; ✓ steps taken to remediate the sites contaminated by chemicals listed in Annex A, B or C;
	2.3.10 Summary of future production, use, and releases	✓ projections on production, use, and releases of POPs;

	of POPs – requirements for exemptions	✓ need for specific exemptions and/or acceptable purposes;
	2.3.11 Existing programmes for monitoring releases and environmental and human health impacts, including Findings	✓ existent programmes for monitoring releases and environmental and human health impacts; ✓ POPs monitoring findings;
	2.3.12 Current level of information, awareness, and education among target groups; existing systems to communicate such information to the various groups;	✓ level of information, awareness, and education among target groups on POPs negative effects on human health and environment; ✓ existing systems to communicate the negative effects of POPs on human health and environment to the various groups; ✓ awareness raising amoung communities and households on safety issues relating to DDT use in disease vector control;
	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	✓ description of the mechanism to report under Article 15 on measures taken to implement the provisions of the Convention; ✓ description of the mechanism for information exchange with other Parties to the Convention;
	2.3.14 Relevant activities of non-governmental stakeholders	✓ activities of non-governmental stakeholders on POPs;
	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	✓ technical infrastructure for POPs assessment; ✓ description of POPs measurement, analysis, alternatives and prevention measures; ✓ POPs research and development activities;
	2.3.16 Overview of technical infrastructure for POPs management and destruction	✓ technical infrastructure for POPs management and destruction; ✓ disposal and destruction options available at the national level;
	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	✓ overview on 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	✓ description of the system for the assessment and listing of new chemicals;

	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	✓ description of the system for the assessment and regulation of chemicals already in the market;
	2.4 Implementation status	✓ status of the previous NIP(s) implementation at the national level;
3. Strategy and action plan elements of the national implementation plan	**3.1 Policy statement**	✓ Government's commitment in addressing the POPs issue, including the formal adoption or endorsement of the NIP; ✓ defining the NIP integration within the country's overall environmental policies and sustainable development strategy;
	3.2 Implementation strategy	✓ 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	✓ action plan on institutional and regulatory strengthening;
	3.3.2 Activity: Measures to reduce or eliminate releases from intentional production and use	✓ action plan on reducing or eliminating 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)	✓ action plan on POPs pesticides;
	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)	✓ action plan on PCBs;
	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	✓ action plan on POP-PBDEs and HBCD;

	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	✓ action plan on DDT;
	3.3.7 Activity: Production, import and export, use, stockpiles, and wastes of PFOS, its salts and PFOSF (Annex B, Part III chemicals)	✓ action plan on PFOS, its salts and PFOSF;
	3.3.8 Activity: Register for specific exemptions and the continuing need for exemptions (Article 4)	✓ action plan on registering 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)	✓ action plan on reducing 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)	✓ action plan on identification and management of stockpiles, waste and articles in use, including release reduction and appropriate measures for handling and disposal;
	3.3.11 Activity: Identification of contaminated sites (Annex A, B, and C Chemicals) and, where feasible, remediation in an environmentally sound manner	✓ action plan on 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	✓ action plan on facilitating or undertaking information exchange and stakeholder involvement;
	3.3.13 Activity: Public and stakeholder awareness, information and education (Article 10)	✓ action plan on public and stakeholder awareness, information and education (Article 10);
	3.3.14 Activity: Effectiveness evaluation (Article 16)	✓ action plan on effectiveness evaluation (Article 16);

	3.3.15 Activity: Reporting (Article 15)	✓ action plan on reporting (Article 15);
	3.3.16 Activity: Research, development and monitoring (Article 11)	✓ action plan on research, development and monitoring (Article 11);
	3.3.17 Activity: Technical and financial assistance (Articles 12 and 13)	✓ action plan for technical and financial assistance (Articles 12 and 13);
	3.4 Development and capacity-building proposals and priorities	✓ priority areas where current capacity and capability need to be strengthened to achieve the objectives of the NIP;
	3.5 Timetable for implementation strategy and measures of success	✓ principal targets contained in the detailed strategy, outlining specific targets, milestones, and performance indicators to allow progress to be reviewed and monitored;
	3.6 Resource requirements	✓ details on the projected costs of measures included in the NIP; ✓ identified incremental costs for measures; ✓ identified potential sources of funding for both incremental costs and baseline costs; ✓ alternate sources of funding to be considered, as appropriate;

4.3 Quantitative data

Following the guidance documents screening, the relevant quantitative data generated during NIP development and/or update is compiled in the table below. The quantitative data compiled concerns the POPs listed up to 2015, inclusive.

Table 6. Quantitative data generated by POPs group during the inventory process carried out within the NIP development and/or update

NIP Chapter/Sub-chapter	POPs group	Life-cycle step	Quantitative data
2.3.1 Assessment of POPs pesticides (Annex A, Part I) **2.3.6 Assessment with respect to DDT (Annex B, Part II)** **2.3.9 Information on the state of knowledge on**	**POPs pesticides, including DDT**	Production	✓ Quantity of POPs pesticides produced (tonnes);
		Import/Export	✓ Quantity of POPs pesticides imported/exported (tonnes);
		Use	✓ Quantity of POPs pesticides used (tonnes);
		Stockpiles stored	✓ Quantity of POPs pesticides stockpiles stored (tonnes);
		Waste stockpiles	✓ Quantity of POPs pesticides waste stockpiles (tonnes);
		Contaminated sites	✓ Number of potentially contaminated/contaminated sites;

stockpiles, contaminated sites and wastes, identification, likely numbers, relevant regulations, guidance, remediation measures, and data on releases from sites	**PCP, its salts and esters**	Production (historical/current)	✓ Quantity of PCP, its salts and esters produced (tonnes);
		Import/export (historical/current)	✓ Quantity of PCP, its salts and esters imported/exported (tonnes) ✓ Quantity of PCP, its salts and esters treated timber imported/exported (for utility poles and cross-arms) (tonnes);
		Use (historical/current)	✓ Quantity of PCP, its salts and esters used, especially for timber treatment (for utility poles and cross-arms) (tonnes); ✓ Quantity of PCP, its salts and esters treated timber in use (for utility poles and cross-arms) (tonnes);
		Waste stockpiles	✓ Quantity of PCP contaminated waste, especially from timber treatment (for utility poles and cross-arms) (tonnes);
		Contaminated sites	✓ Number of potentially contaminated/contaminated sites;
2.3.2 Assessment of PCBs (Annex A, Part II) **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**	**PCBs**	Production (historical)	✓ Quantity of PCBs produced (tonnes);
		Import/export for environmentally sound disposal	✓ Quantity of PCBs imported/exported for environmentally sound disposal (tonnes);
		Use/ Stockpiles stored/ Waste stockpiles	✓ Number of equipment in service/ out of service; ✓ Total mass of equipment in service/out of service [Kg]; ✓ Mass of liquids (oil) of equipment in service/out of service [Kg]; ✓ PCB content in oil of equipment in service/out of service (%).
		Waste disposal	✓ Quantity of PCBs locally destroyed (tonnes); ✓ Quantity of PCBs destroyed abroad (tonnes);
		Contaminated sites	✓ Number of potentially contaminated/contaminated sites;
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)	**POP-PBDEs**	Production (historical)	✓ Quantity of POP-PBDEs produced (tonnes);
		Import/export	✓ Quantity of POP-PBDEs imported/exported (historical, tonnes); ✓ Quantity of POP-PBDEs in articles/products imported / exported (tonnes);

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		Use	✓ Quantity of POP-PBDEs used to manufacture article/products (historical, tonnes); ✓ Quantity of POP-PBDEs in article/products in use, especially EEE and vehicles (tonnes); ✓ Quantity of polymeric fraction containing POP-PBDEs (especially contained in EEE and vehicles)(tonnes);
		Stockpiles	✓ Quantity of POP-PBDEs in stockpiled article/products (especially EEE and vehicles) (tonnes); ✓ Quantity of polymeric fraction containing POP-PBDEs (especially contained in EEE and vehicles) (tonnes);
		Recycling	✓ Quantity of recycled POP-PBDEs containing articles/products (tonnes); ✓ Quantity of articles/products produced from recycled articles/products containing POP-PBDEs (tonnes);
		Waste stockpiles	✓ Quantity of POP-PBDEs in article/products wastes stockpiles (especially wastes of electric and elactronics equipment (WEEE) and end-of-life vehicles (ELVs)) (tonnes); ✓ Quantity of polymeric fraction containing POP-PBDEs, especially contained in WEEE and ELVs (tonnes);
		Contaminated sites	✓ Number of potentially contaminated/contaminated sites;
2.3.3 Assessment of POP-PBDEs (Annex A, Part IV and Part V), HBB (Annex A, Part I) **2.3.3 HBCD (Annex A, Part I and Part VII)**	**HBCD**	Production (historical/current)	✓ Quantity of HBCD produced (tonnes);
		Import/export	✓ Quantity of HBCD imported/exported as powder or pellets, as masterbatches, as HBCD containing EPS beads and high impact polystyrene (HIPS) pellets (tonnes); ✓ Quantity of HBCD in articles/products imported/exported (especially EPS and XPS in construction sector and flame

			retarded textile applications) (tonnes);
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		Use	✓ Quantity of HBCD used to manufacture article/products (historical/current, especially EPS and XPS in construction sector and flame retarded textile applications) (tonnes); ✓ Quantity of HBCD in article/products in use (especially EPS and XPS in construction sector and flame retarded textile applications) (tonnes);
		Recycling	✓ Quantity of EPS/XPS materials containing HBCD recycled (tonnes); ✓ Quantity of articles/products made from recycled HBCD containing materials (tonnes); ✓ Content of HBCD in articles/products made from recycled materials (mg/kg);
		Waste stockpiles ((a) HBCD as chemical; (b) HBCD containing mixtures and articles; (c) HBCD-containing waste from demolition; d) HBCD-containing other wastes; (e) waste generated during recycling.	✓ Quantity of HBCD containing waste generated (tonnes); ✓ Related HBCD content (%);
		Contaminated sites	✓ Number of potentially contaminated/contaminated sites;
2.3.4 Assessment of HCBD (Annex A, Part I) **2.3.9 Information on the state of knowledge on stockpiles, contaminated sites and wastes, identification, likely**	**HCBD**	Production as by-product from chlorinated hydrocarbons production (historical/current)	✓ Quantity of HCBD by-product (tonnes); ✓ Related HCBD content (%);
		Import/export (historical/current)	✓ Quantity of HCBD imported/exported as by-product (especially for use in agricultural sector, industrial manufacture, purification of gas streams and electrical equipment) (tonnes);

numbers, relevant regulations, guidance, remediation measures, and data on releases from sites			✓ Quantity of imported/exported products and articles containing HCBD (tonnes);
		Use (historical/current)	✓ Quantity of HCBD used as by-product (especially for use in agricultural sector, industrial manufacture, purification of gas streams, electrical equipment and re-distillation and reutilization in the production process (only in case of closed applications)) (tonnes); ✓ Quantity of HCBD used to manufacture article/products (especially transformers, heat exchange and hydraulic fluids) (tonnes); ✓ Quantity of in use products and articles containing HCBD (especially transformers, heat exchange and hydraulic fluids) (tonnes);
		Waste stockpiles	✓ Quantity of HCBD containing waste (tonnes); ✓ Related HCBD content (%);
		Contaminated sites	✓ Number of potentially contaminated/contaminated sites;
2.3.5 Assessment of PCNs (Annex A, part I) **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**	**PCNs**	Production (historical/current)	✓ Quantity of PCNs produced (tonnes) (for using as intermediate for the production of polyfluorinated naphthalenes (PFNs) or for other purposes);
		Import/export (historical/current)	✓ Quantity of PCNs imported/exported (tonnes);
		Use (historical/current)	✓ Quantity of PCNs used (tonnes) (as intermediate for the production of polyfluorinated naphthalenes (PFNs) or for other purposes like electrical cables, leather jacket, cable sheats);
		Waste stockpiles	✓ Quantity of PCN containing waste generated (tonnes) (especially cables containing PCNs, including POP-PBDEs and PCBs); ✓ Related PCNs content, including POP-PBDEs and PCBs (ppm);
		Contaminated sites	✓ Number of potentially contaminated/contaminated sites;
2.3.7 Assessment of PFOS, its salts and	**PFOS, its salts and PFOS-F**	Production (historical/current)	✓ Quantity of PFOS, its salts and PFOS-F produced as allowed by the

PFOSF (Annex B, Part III) **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**			specific exemptions/acceptable purposes (tonnes);
		Import/export (historical/current)	✓ Quantity of PFOS, its salts and PFOS-F imported/exported (tonnes); ✓ Quantity of PFOS, its salts and PFOS-F in articles/products imported/exported (especially firefighting foams and hydraulic fluids) (tonnes);
		Use (historical/current)	✓ Quantity of PFOS, its salts and PFOS-F used to manufacture article/products (tonnes) as allowed by the specific exemptions/acceptable purposes; ✓ Quantity of PFOS, its salts and PFOS-F in article/products in use (tonnes) as allowed by the specific exemptions/acceptable purposes;
		Waste stockpiles	✓ Quantity of PFOS, its salts and PFOS-F in article/products wastes stockpiles (especially firefighting foams and hydraulic fluids wastes) (tonnes);
		Contaminated sites	✓ Number of potentially contaminated/contaminated sites;
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**	**UPOPs**	Unintentional production	✓ source inventories and release estimates of PCDD/PCDF in air, water, land, product and residue (g-TEQ/year); ✓ source inventories and release estimates of PCBs air, water, land, product and residue (g-TEQ/year); ✓ source inventories and release estimates of PeCBz air, water, land, product and residue (g-TEQ/year); ✓ source inventories and release estimates of HCB air, water, land, product and residue (g-TEQ/year); ✓ source inventories and release estimates of PCN air, water, land, product and residue (g-TEQ/year);
		Contaminated sites	✓ Number of potentially contaminated/contaminated sites;

5. Data and information requested to be included within other reports to be prepared under the Stockholm Convention

5.1 Unintentional persistent organic pollutants (UPOPs)

In accordance with Article 5 of the Convention each Party shall take measures to reduce the total releases derived from anthropogenic sources of each of the chemicals listed in Annex C, with the goal of their continuing minimization and, where feasible, ultimate elimination.

In this sense, Parties need to develop an action plan or, where appropriate, a regional or sub-regional action plan within two years of the date of entry into force of this Convention for it, and subsequently implement it as part of its implementation plan specified in Article 7, designed to identify, characterize and address the release of the chemicals listed in Annex C and to facilitate implementation of:

a) feasible and practical measures that can expeditiously achieve a realistic and meaningful level of release reduction or source elimination;
b) use of substitute or modified materials, products and processes to prevent the formation and release of the chemicals listed in Annex C;
c) use of best available techniques and best environmental practices for existing and new sources within source categories which a Party has identified;

The action plan shall include the following elements:

(i) An evaluation of current and projected releases, including the development and maintenance of source inventories and release estimates, taking into consideration the source categories identified in Annex C;

(ii) An evaluation of the efficacy of the laws and policies of the Party relating to the management of such releases;

(iii) Strategies to meet the obligations on unintentional POPs, taking into account the evaluations of current and projected release and efficacy of the laws and policies;

(iv) Steps to promote education and training with regard to, and awareness of, those strategies;

(v) A review every five years of those strategies and of their success in meeting the obligations; such reviews shall be included in reports submitted pursuant to Article 15;

(vi) A schedule for implementation of the action plan, including for the strategies and measures identified therein.

Therefore, based on the evaluation of current and projected releases and the efficacy of the laws and policies relating to the management of UPOPs, Parties to the Stockholm Convention need to develop strategies to meet the obligations on unintentional POPs, review it every five years and include such reviews in the reports submitted pursuant to Article 15. Thus, the reporting format in respect to the review of strategies meet the obligations on unintentional POPs, corresponds to the

format for Article 15, the qualitative information and quantitative data to be reported being laid down in the section 3 of the present report.

5.2 Polychlorinated biphenyls (PCBs)

According to the paragraph (g) of Part II to the Annex A of the Stockholm Convention, Parties need to provide a report every five years on progress in eliminating polychlorinated biphenyls and submit it to the Conference of the Parties pursuant to Article 15. Therefore, the reporting format in respect to the progress in eliminating PCBs corresponds to the format for Article 15, the qualitative information and quantitative data to be reported being laid down in the section 3 of the present report.

The reports shall, as appropriate, be considered by the Conference of the Parties in its reviews relating to polychlorinated biphenyls. The Conference of the Parties shall review progress towards elimination of polychlorinated biphenyls at five year intervals or other period, as appropriate, taking into account such reports.

The Conference of the Parties to the Stockholm Convention reviews progress towards elimination of PCBs), every four years at its ordinary meetings, taking into account the information provided in the national reports submitted by Parties pursuant to Article 15 of the Convention.

At its eighth meeting, the Conference of the Parties adopted decision SC-8/3, by which it established a small intersessional working group, working by electronic means and, subject to the availability of funding, through a face-to-face meeting, to prepare a report on progress towards the elimination of PCBs for consideration by the Conference of the Parties at its ninth meeting.

5.3 Polybromodiphenyl ethers (POP-PBDEs)

5.3.1 General information

Paragraph 2 of parts IV and V of Annex A to the Stockholm Convention on Persistent Organic Pollutants provides that at its sixth ordinary meeting and every second meeting thereafter the Conference of the Parties shall evaluate the progress that parties have made towards achieving their ultimate objective of elimination of hexabromodiphenyl ether and heptabromodiphenyl ether and tetrabromodiphenyl ether and pentabromodiphenyl ether contained in articles and review the continued need for a specific exemption for those chemicals. The paragraph also provides that the specific exemptions will in any case expire at the latest in 2030 (Stockholm Convention website 2020).

By decision SC-6/3, the Conference of the Parties adopted a process for the evaluation and review of brominated diphenyl ethers pursuant to paragraph 2 of parts IV and V of Annex A as set out in the annex to that decision and committed itself to undertaking the evaluation and review at its eighth meeting (COP-8) and every second ordinary meeting thereafter. According to the process, the Secretariat is to analyse the information submitted by parties and any other pertinent and credible information available and prepare a report, with advice from relevant experts such as the

members of the POPs Review Committee, for consideration by the Conference of the Parties to assist it in undertaking the evaluation and review of brominated diphenyl ethers (Stockholm Convention website 2020).

By decision SC-7/4, the Conference of the Parties adopted the format for the submission of information for the evaluation and review of brominated diphenyl ethers. By the same decision, the Conference of the Parties took note of both the information provided by parties on their experience in implementing the recommendations set out in the annex to decision POPRC-6/2 and the report by the Secretariat on the main challenges encountered by parties in implementing the recommendations and decided to take them into account in the evaluation and review of brominated diphenyl ethers at COP-8 (Stockholm Convention website 2020).

5.3.2 Qualitative information

By screening the format for the submission of information for the evaluation and review of brominated diphenyl ethers pursuant to paragraph 2 of parts IV and V of Annex A to the Stockholm Convention, included in the Annex to decision SC-7/4, the following qualitative information have been identified.

Table 7. Qualitative information requested on the evaluation and review of brominated diphenyl ethers pursuant to paragraph 2 of parts IV and V of Annex A to the Stockholm Convention

Section	Qualitative information
I	✓ registration for a specific exemption related to brominated diphenyl ethers in accordance with part IV and/or part V of Annex A to the Stockholm Convention; ✓ undertaking any review of its continuing need for registration of the continued need for a specific exemption for hexabromodiphenyl ether and heptabromodiphenyl ether and/or tetrabromodiphenyl ether and pentabromodiphenyl ether or difficulties encountered;
II	✓ taking any actions or control measures to eliminate brominated diphenyl ethers contained in articles (information on status, year, types of actions or control measures or difficulties encountered);
III	✓ identification of articles in use that contain or may contain brominated diphenyl ethers (information on types of articles or difficulties encountered);
IV	✓ taking measures to dispose of articles that contain or may contain brominated diphenyl ethers in an environmentally sound manner (information on types of measures and/or articles or difficulties encountered);
V	✓ recycled articles that contain or may contain brominated diphenyl ether (information on actions or control measures taken to ensure that recycling is carried out in an environmentally sound manner, types of articles, difficulties encountered);
VI	✓ putting in place measures to separate articles containing brominated diphenyl ethers before recycling (information on types of measures or difficulties encountered);
VII	✓ using articles manufactured from recycled materials that contain or may contain brominated diphenyl ethers (information on status, types of articles);

VII	✓ disposing of articles manufactured from recycled materials that contain or may contain brominated diphenyl ethers (information on status, types of actions or control measures to ensure that it is carried out in an environmentally sound manner or difficulties encountered);
IX	✓ *taken any steps to prevent the export of articles manufactured from recycled materials that contain levels or concentrations of brominated diphenyl ethers exceeding those permitted for the sale, use, import or manufacture of those articles within its territory (information on status, year, types of measures or difficulties encountered).*

Source: Stockholm Convention Secretariat 2015

5.3.3 Quantitative data

The format for the submission of information for the evaluation and review of brominated diphenyl ethers pursuant to paragraph 2 of parts IV and V of Annex A to the Stockholm Convention, included in the Annex to decision SC-7/4, contains two types of quantitative data on PBDEs, namely :

- ✓ quantity of bromine contained in articles in use that contain or may contain brominated diphenyl ethers;
- ✓ quantitiy of bromine contained in articles disposed of.

5.4 DDT

5.4.1 General information

Paragraph 6 of Part II of Annex B to the Stockholm Convention requires the Conference of the Parties at least every three years, to evaluate the continued need for DDT for disease vector control on the basis of available scientific, technical, environmental and economic information. Additionally, the COP has endorsed the establishment of a DDT Expert Group to provide an assessment of DDT and that will make recommendations to the COP on the continued need for DDT and on other relevant issues pertaining to DDT (Stockholm Convention website 2018).

Paragraph 4 of Part II of Annex B to the Stockholm Convention requests each Party that use DDT to inform the Secretariat every three years on the amount used, the conditions of such use and its relevance to that Party's disease management strategy. The COP has endorsed a questionnaire to support Parties to provide such information. The Secretariat notifies Parties at the appropriate time to complete the questionnaire. Parties complete the questionnaire and return it to the Secretariat (Stockholm Convention website 2018).

The Secretariat collates and compiles the information received on the completed questionnaires, seeks further information from the World Health Organization and other relevant entities and carries out a preliminary assessment on DDT (Stockholm Convention website 2018).

At least six months before each COP, the DDT Expert Group meets to assess the continued need for DDT and any other pertinent issue regarding DDT and its alternatives. The DDT Expert Group provides a report to the COP including its recommendations on the continued need for DDT for disease vector control (Stockholm Convention website 2018).

At least every three years and invariably at each COP which occurs every two years, a decision is made on the continued need for DDT for disease vector control (Stockholm Convention website 2018).

The questionnaire is structured as presented in the table below.

Table 8. Structure of the Questionnaire for reporting by each Party on production and use of DDT for disease vector control and for reporting other information relevant to the evaluation of the continued need for DDT for disease vector control

Section	Sub-section
Section A: Production and use of DDT	A.I. Sources of DDT
	A.II. Stock information
	A.III. DDT use
	A.IV. Regulation and control
Section B: DDT alternatives (insecticides, methods and strategies)	B.I. Disease management strategies
	B.II. Alternatives to DDT
Section C: General human and environmental safety issues	
Section D: Systems strengthening in disease vector control	

Source: Stockholm Convention Secretariat 2005

5.4.2 Qualitative information

By screening the Questionnaire for reporting by each Party on production and use of DDT for disease vector control and for reporting other information relevant to the evaluation of the continued need for DDT for disease vector control, included in the Annex II to decision SC-1/25, as amended by Annex II to decision SC-3/2, the following qualitative information requested to be reported have been identified.

Table 9. Qualitative information requested to be reported for DDT

Section	Sub-section	Qualitative information
Section A: Production and use of DDT	**A.I. Sources of DDT**	✓ production facility and location; ✓ DDT repackaged/reformulated in the country (information on origin of active ingredient and repackaging/reformulation facility);

		✓ DDT exported (information on facility and destination country); ✓ DDT imported (information on country from which DDT is imported and name of manufacturer);
	A.II. Stock information	✓ usable stocks of DDT (information on location and conditions of storage);
	A.III. DDT use	✓ using DDT for disease vector control (information on status); ✓ planning to use DDT for disease vector control in the future; ✓ using DDT for any other purpose besides disease vector control (information on status); ✓ involvement of non-government agencies in using DDT for disease vector control purposes (information on status); ✓ type of disease and main vector species targeted by DDT used for disease vector control;
	A.IV. Regulation and control	✓ national laws and regulations governing or restricting the purchase or use of DDT (information on status and degree of enforcement); ✓ quality control on the product in the country, if DDT is produced or imported (information on status); ✓ surveillance mechanism for monitoring of DDT resistance (information on status); ✓ bioassay test procedures used for detecting DDT resistance (information on vector species, DDT concentration & exposure time (mins.), % mortality, year last tested, geographical area concerned); ✓ resistance observed for the other insecticides used in disease vector control (information on status and vectors for each chemical group);
Section B: DDT alternatives (insecticides, methods and strategies)	**B.I. Disease management strategies**	✓ integrated vector management (IVM) strategy endorsed at the national level (information on status and implementation coverage); ✓ research into the development and testing of locally appropriate alternative intervention to DDT (information on status and type of research/testing);

	B.II. Alternatives to DDT	✓ DDT alternatives used (information on alternative control interventions, disease targeted and source (country) (import/local)); ✓ implementation of resistance management strategy, if alternative insecticides to DDT are used (information on status); ✓ DDT alternatives that have been used but are no longer in use (information on alternative control interventions, disease targeted, year of last use and reasons why the use was stopped (import/local));
Section C: General human and environmental safety issues		✓ programme to raise awareness amoung communities and households on safety issues relating to DDT use in disease vector control (information on status); ✓ agencies responsible for assessing the risks posed by the use of insecticides to public health (information on status); ✓ system in place to monitor exposure to DDT (information on status);
Section D: Systems strengthening in disease vector control		✓ training facilities on insecticide use for disease vector control (information on status); ✓ training conducted on insecticide use for vector control (information on status); ✓ existence of formal mechanisms for inter-sectoral collaboration in disease vector control (information on status); ✓ collaboration between formal mechanisms (information on status); ✓ using entomology laboratory for vector resistance testing (information on status and international recognition);

5.4.3 Quantitative data

The Questionnaire for reporting by each Party on production and use of DDT for disease vector control and for reporting other information relevant to the evaluation of the continued need for DDT for disease vector control, included in the Annex II to decision SC-1/25, as amended by Annex II to decision SC-3/2, includes the following quantitative data to be reported.

Table 10. Quantitative data requested to be reported for DDT

Section	Sub-section	Quantitative data
Section A: Production and use of DDT	**A.I. Sources of DDT**	✓ total production capacity (kg); ✓ net output per year (kg) ; ✓ formulation (type & % active ingredient (a.i.)) ; ✓ % for in-country use; ✓ DDT repackaged/reformulated in the country (data on formulation type, % of active ingredient and quantity per year (kg)); ✓ DDT exported (data on quantity per year (kg), formulation type and % of active ingredient); ✓ DDT imported (data on total quantity imported per year (kg), formulation type and % of active ingredient);
	A.II. Stock information	✓ usable stocks of DDT (data on total amount in storage (kg), formulation type and % of active ingredient);
	A.III. DDT use	✓ total amount (kg of DDT used annually for disease vector control, including formulation type and % of active ingredient); ✓ % total national population at risk that is covered by DDT use;
Section B: DDT alternatives (insecticides, methods and strategies)	**B.II. Alternatives to DDT**	✓ DDT alternatives used (data on product, formulation, % of active ingredient and quantity per year (kg)); ✓ DDT alternatives that have been used but are no longer in use (data on quantity (kg));

5.5 Perfluorooctane sufonic acid (PFOS), its salts and perfluorooctane sulfonyl fluoride (PFOS-F)

5.5.1 General information

In accordance with the paragraph 3 of Part III of Annex B to the Stockholm Convention, every four years, each Party that uses and/or produces these chemicals shall report on progress made to eliminate PFOS, its salts and PFOSF and submit information on such progress to the Conference of the Parties pursuant to and in the process of reporting under Article 15 of the Convention.

The Conference of the Parties to the Stockholm Convention evaluate (paragraph 5 of Part III of Annex B to the Convention) the continued need for PFOS, its salts and PFOSF for the various

acceptable purposes and specific exemptions on the basis of available scientific, technical, environmental and economic information, including:

- ✓ Information provided in the national report;
- ✓ Information on the production and use of these chemicals;
- ✓ Information on the availability, suitability and implementation of alternatives to these chemicals:
- ✓ Information on progress in building the capacity of countries to transfer safely to reliance on such alternatives.

The process for the evaluation of the continued need for PFOS, its salts and PFOSF for the various acceptable purposes and specific exemptions was adopted at COP-6 in 2013 (decision SC-6/4) (Stockholm Convention website 2018).

The first evaluation was held at COP-7 in 2015. The Conference of the Parties concluded that parties may need to continue to produce and/or use PFOS, its salts and PFOSF for acceptable purposes as provided in Annex B to the Convention and consequently need to notify the Secretariat of their intention to produce and/or use those chemicals for those purposes (decision SC-7/5) (Stockholm Convention website 2018).

The Conference of the Parties noted, pursuant to paragraph 9 of Article 4, that as there are no longer any parties registered for specific exemptions for the production and use of PFOS, its salts and PFOSF for carpets, leather and apparel, textiles and upholstery, paper and packaging, coatings and coating additives and rubber and plastics, no new registrations may be made with respect to them (decision SC-7/1). The next evaluation will be held at COP-9 in 2019 (Stockholm Convention website 2018).

The Form for the collection of information on PFOS, its salts, PFOSF and their related chemicals to be used in the evaluation of the continued need for the various acceptable purposes and specific exemptions includes the following sections and sub-sections.

Table 11. Structure of the Form for the collection of information on PFOS, its salts, PFOSF and their related chemicals to be used in the evaluation of the continued need for the various acceptable purposes and specific exemptions

Section	Sub-section
I. Information on PFOS, its salts and PFOSF	1. Production of PFOS, its salts and PFOSF 2. Import of PFOS, its salts and PFOSF 3. Export of PFOS, its salts and PFOSF 4. Use of PFOS, its salts and PFOSF 5. Continued need for acceptable purposes and specific exemptions 6. Progress in eliminating PFOS, its salts and PFOSF 7. Progress in building the capacity of countries to transfer safely to reliance on alternatives

	8. Research/development of safe alternatives
II. Information on sulfluramid	1. Production of sulfluramid 2. Import of sulfluramid 3. Export of sulfluramid 4. Use of sulfluramid 5. Local monitoring of releases of PFOS from the use of sulfluramid
III. Information on alternatives to PFOS, its salts, PFOSF and their related chemicals (chemical/non-chemical alternatives or processes)	1. Application 2. Description of the alternative 3. Economic viability of the alternative 4. Technical feasibility and efficacy of the alternative technically feasible 5. Market availability and accesibility of the alternative 6. Health/environmental effects including POPs characteristics and other hazards 7. Risks, taking into account the criteria in Annex D for POPs characteristics and other hazard indicators 8. Socio-economic considerations

Source: POPs Review Committee 2018

5.5.2 Qualitative information

By screening the form for the collection of information on PFOS, its salts, PFOSF and their related chemicals to be used in the evaluation of the continued need for the various acceptable purposes and specific exemptions, included in the POPs Review Commitee Decision POPRC-14/3, the following qualitative information requested to be reported have been identified.

Table 12. Qualitative information requested for the evaluation of the PFOS, its salts and PFOSF continued need for the various acceptable purposes and specific exemptions

Section	Sub-section	Qualitative information
I. Information on PFOS, its salts and PFOSF	**1. Production of PFOS, its salts and PFOSF**	✓ chemical names/CAS numbers of the chemicals produced; ✓ purpose of the production and the years in which the chemicals were produced;
	2. Import of PFOS, its salts and PFOSF	✓ chemical names/CAS numbers of the chemicals imported; ✓ purpose of the import, the countries from which the chemicals were imported and the years in which the chemicals were;

	3. Export of PFOS, its salts and PFOSF	✓ chemical names/CAS numbers of the chemicals exported; ✓ purpose of the export, countries to which the chemicals were exported and the years in which the chemicals were exported;
	4. Use of PFOS, its salts and PFOSF	✓ chemical names/CAS numbers of the chemicals used; ✓ purpose of the use and the years in which the chemicals were used;
	5. Continued need for acceptable purposes and specific exemptions	✓ registration for any of the acceptable purposes or specific exemptions for PFOS, its salts and PFOSF; ✓ review of the continued need for those acceptable purposes or specific exemptions;
	6. Progress in eliminating PFOS, its salts and PFOSF	✓ progress in eliminating PFOS, its salts and PFOSF;
	7. Progress in building the capacity of countries to transfer safely to reliance on alternatives	✓ progress in building the capacity of countries to transfer safely to reliance on alternatives;
	8. Research/development of safe alternatives	✓ research on and development of safe alternatives to PFOS, its salts and PFOSF as stipulated in paragraph 4 (c) of part III of Annex B to the Convention;
II. Information on sulfluramid	**1. Production of sulfluramid**	✓ purpose of the production and the years in which the chemicals were produced;
	2. Import of sulfluramid	✓ purpose of the import, the countries from which the chemicals were imported and the years in which the chemicals were imported;
	3. Export of sulfluramid	✓ purpose of the export, countries to which the chemicals were exported and the years in which the chemicals were exported;
	4. Use of sulfluramid	✓ purpose of the use and the years in which the chemicals were used;
	5. Local monitoring of releases of PFOS from the use of sulfluramid	✓ conducting local monitoring of releases of PFOS from the use of sulfluramid;
III. Information on alternatives to PFOS, its salts, PFOSF and their related	**1. Application**	✓ relevant application of the alternatives to PFOS, its salts, PFOSF and their related

chemicals (chemical/non-chemical alternatives or processes)		chemicals (chemical/non-chemical alternatives or processes);
	2. Description of alternative	✓ chemical name, CAS number and trade names of the alternative; ✓ name of the chemical substituted; ✓ characteristics of the non-chemical alternatives or processes;
	3. Is the alternative economically viable?	✓ economic viability of the alternatives to PFOS, its salts, PFOSF and their related chemicals; ✓ cost-effectiveness, including environmental, health and socio-economic costs;
	4. Is the alternative technically feasible? What is its efficacy?	✓ demonstration of equivalent function and providing similar product performance characteristics by the alternatives to PFOS, its salts, PFOSF and their related chemicals; ✓ efficacy, including performance, benefits and limitations of the alternatives to PFOS, its salts, PFOSF and their related chemicals; ✓ status of the alternatives to PFOS, its salts and PFOSF use (actually being implemented, on trial or at proposal stage);
	5. Is the alternative available on the market? How accessible is it?	✓ availability on the market and readiness for immediate use of the alternatives to PFOS, its salts, PFOSF and their related chemicals; ✓ geographic, legal or other limiting factors affecting the use of the alternatives to PFOS, its salts, PFOSF and their related chemicals;
	6. Health/environmental effects including POPs characteristics and other hazards	✓ classification according to the Global Harmonization System or other systems; ✓ exposure (e.g. monitoring data) and environmental fate of the chemical;
	7. Risks, taking into account the criteria in Annex D for POPs	✓ testing thoroughly or evaluating the alternatives to PFOS, its salts, PFOSF and their related

	characteristics and other hazard indicators	chemicals to avoid inadvertently increasing risks to human health/environment;
	8. Socio-economic considerations	✓ socio-economic impacts associated with the alternatives to PFOS, its salts, PFOSF and their related chemicals.

5.5.3 Quantitative data

The form for the collection of information on PFOS, its salts, PFOSF and their related chemicals to be used in the evaluation of the continued need for the various acceptable purposes and specific exemptions, included in the POPs Review Commitee Decision POPRC-14/3, requests to report the following quantitative data.

Table 13. Qualitative data requested for the evaluation of the PFOS, its salts and PFOSF continued need for the various acceptable purposes and specific exemptions

Section	Sub-section	Quantitative data
I. Information on PFOS, its salts and PFOSF	**1. Production of PFOS, its salts and PFOSF**	✓ quantities of PFOS, its salts and PFOSF produced per year (kg);
	2. Import of PFOS, its salts and PFOSF	✓ quantities of PFOS, its salts and PFOSF imported per year (kg);
	3. Export of PFOS, its salts and PFOSF	✓ quantities of PFOS, its salts and PFOSF exported per year (kg);
	4. Use of PFOS, its salts and PFOSF	✓ quantities of PFOS, its salts and PFOSF used per year (kg);
II. Information on sulfluramid	**1. Production of sulfluramid**	✓ quantities of sulfluramid produced per year (kg);
	2. Import of sulfluramid	✓ quantities of sulfluramid imported per year (kg);
	3. Export of sulfluramid	✓ quantities of sulfluramid exported per year (kg);
	4. Use of sulfluramid	✓ quantities of sulfluramid used per year (kg);
III. Information on alternatives to PFOS, its salts, PFOSF and their related chemicals (chemical/non-chemical alternatives or processes)	**2. Description of alternative**	✓ quantities of production and use of the alternatives to PFOS, its salts, PFOSF and their related chemicals per year (kg);
	3. Is the alternative economically viable?	✓ general price of the alternative (e.g. USD/kg);
	6. Health/environmental effects including POPs characteristics and other hazards	✓ data used for assessing POPs characteristics (persistence, bioaccumulation, potential for long-range environmental

		transport, adverse effects) or other hazards;

6. Overview on the reporting submissions time schedule

The table below gives an overview on the existent reporting submissions time schedule. It is evident that there is limited correlation among the reporting obligations submission deadlines.

While the reports pursuant Article 15, paragraph 2 of Parts IV and V under Annex A (progress in elimination POP-PBDEs) and paragraph 3 of Part III under Annex B (progress in eliminating PFOS) are to be submitted *once at four years*, the report pursuant paragraph 4 of Part II under Annex B (DDT) is to be submitted *once at three years* and the reports pursuant paragraph (a)(v) of Article 5 (UPOPs) and paragraph (2)(g) of Part II under Annex A (progress on eliminating PCBs) are to be submitted *once at five years*.

Table 14. Overview on the reporting submissions time schedule

Reporting obligation	Years				
	I	II	III	IV	V
Article 5 (a)(v) - UPOPs					
Article 15					
Annex A, Part II (2) (g) - Progress on eliminating PCBs					
Annex A, Parts IV (2) and V (2) - Progress in elimination of POP-PBDEs					
Annex B, Part II (4) - DDT					
Annex B, Part III (3) - Progress in eliminating PFOS					

7. Mechanisms for NIPs development and/or update and reporting

In accordance with the Article 7 provisions 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.

In other words, the Parties need to establish and put into practice a mechanism for periodic updating and review and implementation of the NIP.

Also, the Parties need to establish a mechanism to report under Article 15 and other obligations under the Stockholm Convention.

Therefore, in order to streamline the actions at the national level and ensure coherence in respect to the NIP update/review/implementation and reporting it is preferable to establish a single mechanism which can serve for multiple purposes.

Through such mechanism it would be possible to keep track to the data and information generated during the NIP update/review and NIP implementation and to correlate it with the data and information needed to be reported according to the Convention requirements.

8. Overlapping and gaps between the data and information requested to be included within the Article 15 reporting and other reporting obligations under the Stockholm Convention and the data and information generated during the NIP development and/or update

The analysis revealed overlapping and gaps among Article 15 reporting requirements and the other reporting obligations under the Stockholm Convention (UPOPs, PCBs, POP-PBDEs, DDT and PFOS) and the information and data generated during the NIP development and/or update. **The detailed overview of the analysis is included in the Annex I of this report.**

Basically the analysis shows that majority of qualitative information and quantitative data requested to be reported under Article 15 and other reporting obligations under the Convention are to a large extent generated under the NIP development and/or update process, with few limitations.

The limitations refer either to the cases when the NIP generates the information and data to a limited level of detail than the one requested by the reporting obligations or when the NIP does not generate the information and data requested. The level of detail of the NIP information and data may differ from Party to Party and most of the time is not correlated with the reporting obligations.

The limited level of detail and the lack of information and/or data within the NIP were identified for the reporting obligations, as described within the sections 8.1 to 8.3 below.

Also, in case of Article 15 reporting it was observed that there is an imbalance on POP-PBDEs, HBCD and PFOS, its salts and PFOSF quantitative data requested to be reported compared to that for PCBs, as described in section 8.4 below.

8.1 Limited level of detail on PCBs in the NIP for Article 15 reporting

Compared to the data and information generated during the NIP development and/or update, the Article 15 reporting requests to present the following information and data at greater level of detail:

i) describing the strategies for identifying stockpiles consisting of or containing PCBs by ppm concentration;
ii) describing the strategies for identifying products and articles in use and wastes consisting of, containing or contaminated with PCBs by ppm concentration;
iii) describing the strategies for identifying sites contaminated with PCBs by ppm concentration;
iv) describing the measures to identify and label, where appropriate, equipment in use, wastes and articles containing PCBs by ppm concentration;
v) quantitative data on articles and materials, proportion of waste and equipment containing PCBs by ppm concentration;
vi) statistical data of locally destroyed, in an environmentally sound manner, of equipment, liquids, or other wastes containing PCBs by ppm concentration;

vii) statistical data of imported and exported equipment, liquids, or other wastes containing PCBs by ppm concentration.

8.2 Lack of information on DDT in the NIP for Article 15 reporting

Some specific information on DDT reporting are normally not generated in the NIP development as described by the NIP update guidance, in particular on resistence and information on alternatives:

i) information on bioassay test procedures used for detecting DDT resistance (vector species, DDT concentration & exposure time (mins.), % mortality, year last tested, geographical area concerned);
ii) information on resistance observed for the other insecticides used in disease vector control (status and vectors for each chemical group);
iii) information on implementation of resistance management strategy, if alternative insecticides to DDT are used (status);
iv) information on DDT alternatives that have been used but are no longer in use (alternative control interventions, disease targeted, year of last use and reasons why the use was stopped (import/local));
v) information on training facilities on insecticide use for disease vector control (status);
vi) information on training conducted on insecticide use for vector control (status);
vii) information on existence of formal mechanisms for inter-sectoral collaboration in disease vector control (status);
viii) information on collaboration between formal mechanisms (status);
ix) information on using entomology laboratory for vector resistance testing (status and international recognition).
x) data on DDT total production capacity (kg);
xi) data on DDT repackaged/reformulated in the country (data on formulation type, % of active ingredient and quantity per year (kg));
xii) data on DDT alternatives used (data on product, formulation, % of active ingredient and quantity per year (kg));
xiii) data on DDT alternatives that have been used but are no longer in use (data on quantity (kg)).

8.3 Lack of information on PFOS in the NIP for the evaluation of the continued need for PFOS, its salts and PFOSF for the various acceptable purposes and specific exemptions

A few specific information on PFOS reporting are normally not generated in the NIP development as described by the NIP update guidance:

i) data on quantities of production and use of the alternatives to PFOS, its salts, PFOSF and their related chemicals per year (kg);
ii) data on general price of the alternative (e.g. USD/kg);

iii) data used for assessing POPs characteristics (persistence, bioaccumulation, potential for long-range environmental transport, adverse effects) or other hazards.

8.4 Lack of compiling quantitative data in Article 15 reporting on POP-PBDEs, HBCD and PFOS available from NIP development

Despite the following quantitative data is generated during the NIP development and/or update process it is not reflected under the Article 15 reporting thus highlighting an imbalance on data requested to be reported for POP-PBDEs, HBCD and PFOS, its salts and PFOSF compared to PCBs for example.

8.4.1. POP-PBDEs

In respect to POP-PBDEs, currently the Article 15 reporting requires to report on:

i) producing any of the chemicals listed in Annex A or Annex B to the Convention (information on type of chemical, year in which the production started/ended and estimated total production [kg]);
ii) exporting any of the chemicals listed in Annex A or Annex B to the Convention (information on year, type of chemical, purpose, destination country and total annual export (kg/year));
iii) importing any of the chemicals listed in Annex A or Annex B to the Convention (information on year, type of chemical, purpose, country of origin and total annual import (kg/year));

However, during the NIP development and/or update process, besides the current quantitative data requested by the Article 15 reporting, the following quantitative data is generated:

i) Quantity of POP-PBDEs produced (tonnes);
ii) Quantity of POP-PBDEs imported/exported (historical, tonnes);
iii) Quantity of POP-PBDEs in articles/products imported / exported (tonnes);
iv) Quantity of POP-PBDEs used to manufacture article/products (historical, tonnes);
v) Quantity of POP-PBDEs in article/products in use, especially EEE and vehicles (tonnes);
vi) Quantity of polymeric fraction containing POP-PBDEs (especially contained in EEE and vehicles)(tonnes);
vii) Quantity of POP-PBDEs in stockpiled article/products (especially EEE and vehicles) (tonnes);
viii) Quantity of polymeric fraction containing POP-PBDEs (especially contained in EEE and vehicles) (tonnes);
ix) Quantity of recycled POP-PBDEs containing articles/products (tonnes);
x) Quantity of articles/products produced from recycled articles/products containing POP-PBDEs (tonnes);
xi) Quantity of POP-PBDEs in article/products wastes stockpiles (especially wastes of electric and elactronics equipment (WEEE) and end-of-life vehicles (ELVs)) (tonnes);

xii) Quantity of polymeric fraction containing POP-PBDEs, especially contained in WEEE and ELVs (tonnes);
xiii) Number of potentially contaminated/contaminated sites;

The quatitative data generated during the NIP development and/or update is in accordance with :

a) the provisions of paragraph 2 of the decision SC-8/4[1] were Parties are «encouraged to collect information on the types and quantities of brominated diphenyl ethers in articles in use and in the waste and recycling stream and on measures taken to ensure their environmentally sound management pursuant to Article 6 of the Convention and, where appropriate, parts IV and V of Annex A to the Convention and to make that information available to the Secretariat»;
b) the provisions of paragraph 8 of the decision SC-8/7[2] were Parties and others are « encouraged to improve the availability of data to determine the amounts of specific persistent organic pollutant contained in wastes that have been destroyed or irreversibly transformed, taking into account the recommendation set out in paragraph 102 of the executive summary of the report on the effectiveness evaluation of the Convention[3] ».

8.4.2 HBCD

In respect to HBCD, currently the Article 15 reporting requires to report on:

i) producing any of the chemicals listed in Annex A or Annex B to the Convention (information on type of chemical, year in which the production started/ended and estimated total production [kg]);
ii) exporting any of the chemicals listed in Annex A or Annex B to the Convention (information on year, type of chemical, purpose, destination country and total annual export (kg/year)) ;
iii) importing any of the chemicals listed in Annex A or Annex B to the Convention (information on year, type of chemical, purpose, country of origin and total annual import (kg/year));

However, during the NIP development and/or update process, besides the current quantitative data requested by the Article 15 reporting, the following quantitative data is generated:

i) Quantity of HBCD produced (tonnes);
ii) Quantity of HBCD imported/exported as powder or pellets, as masterbatches, as HBCD containing EPS beads and high impact polystyrene (HIPS) pellets (tonnes);
iii) Quantity of HBCD in articles/products imported/exported (especially EPS and XPS in construction sector and flame retarded textile applications) (tonnes);

[1] SC-8/4: Evaluation and review of brominated diphenyl ethers pursuant to paragraph 2 of parts IV and V of Annex A to the Stockholm Convention;
[2] SC-8/7: Measures to reduce or eliminate releases from wastes;
[3] UNEP/POPS/COP.8/22/Add.1;

iv) Quantity of HBCD used to manufacture article/products (historical/current, especially EPS and XPS in construction sector and flame retarded textile applications) (tonnes);
v) Quantity of HBCD in article/products in use (especially EPS and XPS in construction sector and flame retarded textile applications) (tonnes);
vi) Quantity of EPS/XPS materials containing HBCD recycled (tonnes);
vii) Quantity of articles/products made from recycled HBCD containing materials (tonnes);
viii) Content of HBCD in articles/products made from recycled materials (mg/kg);
ix) Quantity of HBCD containing waste generated (tonnes);
x) Related HBCD content (%);
xi) Number of potentially contaminated/contaminated sites.

The quatitative data on HBCD in waste generated during the NIP development and/or update is in accordance with the provisions of paragraph 8 of the decision SC-8/7[2] were Parties and others are « encouraged to improve the availability of data to determine the amounts of specific persistent organic pollutant contained in wastes that have been destroyed or irreversibly transformed, taking into account the recommendation set out in paragraph 102 of the executive summary of the report on the effectiveness evaluation of the Convention[3] ».

8.4.3 PFOS, its salts and PFOS-F

In respect to PFOS, its salts and PFOS-F, currently the Article 15 reporting requires to report on:

i) statistical data on production of PFOS for the acceptable purposes listed in Annex B of the Convention (status, year, type of acceptable purpose and estimated total production (kg));
ii) statistical data on your country's production of PFOS for the specific exemptions listed in Annex B of the Convention (status, year, type of specific exemption and estimated total production (kg));
iii) statistical data on use of PFOS for the acceptable purposes listed in Annex B of the Convention (status, year, type of acceptable purpose and estimated total production (kg));
iv) statistical data on your country's use of PFOS for the specific exemptions listed in Annex B of the Convention (status, year, type of specific exemption and estimated total production (kg)).

However, during the NIP development and/or update process, besides the current quantitative data requested by the Article 15 reporting, the following quantitative data is generated:

i) Quantity of PFOS, its salts and PFOS-F in articles/products imported/exported (especially firefighting foams and hydraulic fluids) (tonnes);
ii) Quantity of PFOS, its salts and PFOS-F in article/products in use (tonnes) as allowed by the specific exemptions/acceptable purposes;
iii) Quantity of PFOS, its salts and PFOS-F in article/products wastes stockpiles (especially firefighting foams and hydraulic fluids wastes) (tonnes);

iv) Number of potentially contaminated/contaminated sites.

The quatitative data on PFOS, its salts and PFOS-F in waste generated during the NIP development and/or update is in accordance with the provisions of paragraph 8 of the decision SC-8/7[2] were Parties and others are « encouraged to improve the availability of data to determine the amounts of specific persistent organic pollutant contained in wastes that have been destroyed or irreversibly transformed, taking into account the recommendation set out in paragraph 102 of the executive summary of the report on the effectiveness evaluation of the Convention[3] ».

9. Conclusions and recommendations

The overlapping proves that by following closely the guidance documents for NIP development and/or update relevant qualitative information and quantitative data are generated to enable Parties fulfilling the reporting obligations under the Stockholm Convention, whether it's about Article 15 reporting or the other reporting obligations under the Stockholm Convention.

However, the analysis has shown that even the guidance documents for NIP development and/or update are used in their entirety, a few limitations still exists in generating all information and data for complying with the reporting obligations under the Stockholm Convention.

The Parties limitations in generating all information and data for complying with the reporting obligations under the Stockholm Convention may be due to several factors, internal e.g. lack of reporting mechanisms, financial and technical capacities, and external e.g. no streamlined formats for reporting under Article 15 and other reporting obligations under the Stockholm Convention with the NIP development and/or update format.

The limitations refer either to the cases when the NIP generates the information and data to a limited level of detail than the one requested by the reporting obligations or when the NIP does not generate the information and data requested. The level of detail of the NIP information and data may differ from Party to Party and most of the time is not correlated with the reporting obligations.

Therefore, additional efforts from Parties to generate the information and data for complying with the reporting obligations under the Stockholm Convention are needed.

Thus, to overcome the current limitations in complying with the reporting obligations the analysis revealed that there is a need for considering a more integrative approach on the matter.

This integrative approach relates in principle to the fact that once data and information is generated at the national level, in this case during the NIP development and/or update, it should serve for multiple purposes and in particular for reporting under the Convention.

Such integrative approach not only may lead to enhanced effectiveness and efficiency of Convention implementation and but it may reduce the administrative burden and human and financial resources allocated in this sense.

But to consider the compliance with the obligations under the Convention in a more integrative manner, there is a need for streamlining and harmonizing the followings:

v) the format for Article 15 reporting requirements with the formats of the other reporting obligations under the Stockholm Convention;
vi) the format of the NIP development and/or update with the Article 15 reporting format;
vii) national mechanisms for NIP development and/or update with the NIP implementation and with the national mechanisms for reporting;
viii) reporting submissions time schedules.

In regard to streamlining and harmonizing the reporting formats, it is preferable to revise and update the Article 15 reporting format by inclusions of the POP-PBDEs, PFOS, its salts and PFOS-F and DDT reporting requirements, as currently several overlapping have been observed and will serve in avoiding doubling the efforts of Parties in generating the qualitative information and quantitative data needed. Therefore, one single reporting format under Article 15 to serve all reporting purposes is preferable. This can bring more consistency and coherence with the information and data to be reported and remove the existent imbalanced information and data requested among POPs.

Moreover, the need to correlate the the format of the NIP development and/or update with the Article 15 reporting format was also identified as crucial. As the NIP is one of the main sources of information and data generation, especially in the case of developing countries and countries with economies in transition, it should be targeted to generate all information and data to cover the reporting obligations under the Convention. This can only be achieved by correlating the respective two formats. For example, the few information gaps in the NIP (see chapter 8.1 and 8.2) could be easily added to the NIP development. The assessment of alternatives is to some extent included in the NIP update, but it would also be useful to include some information on the assessment of alternatives.

In terms of national mechanisms, the NIP development guidance document advices Parties to make use of the national mechanism created to update the NIP also for NIP implementation, but nothing is mentioned on how the reporting mechanism fits into this structure. It is preferable to create a single national mechanism to serve all purposes e.g. NIP development and/or update, NIP implementation and reporting obligations compliance.

Concerning the discrepancies among the reporting submissions time schedules, these can be easily removed by matching the other reporting obligations under the Stockholm Convention with the Article 15 reporting deadline.

References

POPs Review Committee.2018. POPRC-13/4: Process for the evaluation of perfluorooctane sulfonic acid, its salts and perfluorooctane sulfonyl fluoride pursuant to paragraphs 5 and 6 of part III of Annex B to the Stockholm Convention. http://chm.pops.int/TheConvention/POPsReviewCommittee/Meetings/POPRC14/Overview/tabid/7398/Default.aspx

Stockholm Convention Secretariat. 2005. Decision SC-1/25. on the format of the DDT register; the format and questionnaire contained in annex III; and the evaluation of the continued need for DDT for disease vector control set out in annex IV. http://chm.pops.int/Implementation/PesticidePOPs/DDT/Decisions/tabid/128/Default.aspx

Stockholm Convention Secretariat. 2015. COP Decision SC-7/4: Revised format for the submission of information for the evaluation and review of brominated diphenyl ethers pursuant to paragraph 2. http://chm.pops.int/TheConvention/ConferenceoftheParties/Meetings/COP7/tabid/4251/mctl/ViewDetails/EventModID/870/EventID/543/xmid/13075/Default.aspx

Stockholm Convention Secretariat. 2018. Questionnaire for the 4th reporting cycle pursuant Article 15. http://chm.pops.int/Countries/Reporting/ElectronicReportingSystem/tabid/3669/Default.aspx

Stockholm Convention website, accessed 2018. http://chm.pops.int/Home/tabid/2121/Default.aspx

Annex I. Detailed overview of the overlapping and gaps between the data and information requested to be included within the Article 15 reporting and other reporting obligations under the Stockholm Convention and the data and information generated during the NIP development and/or update

I.1 Overlapping and gaps between qualitative information of Article 15 report and NIP

Table 15. Overview of the overlapping and gaps between qualitative information of Article 15 report and NIP

Article 15 reporting qualitative information			NIP qualitative information	
Part	**Section**	**Information requested**	**Chapter/ sub-chapter**	**Information generated**
Part A: General information		✓ Official Contact Point and National Focal Point; ✓ Date of submission and name of the submitter;		
Part B: Information on the measures taken by the Party to implement the provisions of	Section I. Article 7: Implementation plans	✓ the status of development, update and transmission of NIP; ✓ financial assistance received, as well as the GEF Agency providing the assistance;	1. Introduction	✓ the status of development, update and transmission of NIP; ✓ financial assistance received, as well as the GEF Agency providing the assistance; ✓ NIP review and update triggers;

the Stockholm Convention and on the effectiveness of such measures in meeting the objectives of the Convention		✓ NIP review and update triggers;		
	Section II. Article 3: Measures to reduce or eliminate releases from intentional production and use	✓ legal and administrative measures necessary to eliminate releases from intentional production and use of chemicals listed in Annex A, or restrict the production and use of the chemicals listed in Annex B to the Convention;	2.2 Institutional, 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)	✓ legal and institutional framework for control of the production, use, import, export and environmentally sound management and disposal of the pesticides, listed in Annexes A and B of the Convention, including for contaminated sites ✓ legal, institutional, regulatory, and enforcement systems for PCBs management, including for contaminated sites; ✓ 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), including for contaminated sites; ✓ legal, institutional and regulatory systems for the management of HBCD and materials containing HBCD, including for contaminated sites; ✓ legal, institutional, regulatory, and enforcement systems for PFOS and related chemicals and articles and materials containing PFOS and related chemicals, including for contaminated sites; ✓ legal, institutional and regulatory systems for the management of HCBD and materials containing HCBD;

			2.3.7 Assessment of PFOS, its salts and PFOSF (Annex B, Part III)	✓ legal, institutional and regulatory systems for the management of PCNs and materials containing PCNs;
		✓ measures to regulate new pesticides or new industrial chemicals (i.e. chemicals that have not yet been introduced in the market or registered in the country);	2.3.18 Details of any relevant system for the assessment and listing of new chemicals	✓ description of the system for the assessment and listing of new chemicals;
		✓ consideration the criteria in paragraph 1 of Annex D when conducting assessments of pesticides or industrial chemicals currently in use;	2.3.19 Details of any relevant system for the assessment and regulation of chemicals already in the market	✓ description of the system for the assessment and regulation of chemicals already in the market;
	Section III. Article 4: Register of specific exemptions; Annex A and Annex B	✓ notification of the Secretariat to register for specific exemptions listed in Annex A or Annex B or for acceptable purposes listed in Annex B;	2.3.10 Summary of future production, use, and releases of POPs – requirements for exemptions	✓ necessity to register for the allowed specific exemptions for POPs pesticides; ✓ necessity to register for the specific exemption on recycling of articles that contain or may contain POP-PBDEs and use of articles manufactured from recycled materials that contain or may contain POP-PBDEs; ✓ necessity to register for the specific exemption on production and use of HBCD in expanded polystyrene and extruded polystyrene in buildings; ✓ necessity to register for the allowed PFOS and related chemicals specific exemptions and acceptable purposes; ✓ necessity to register for the specific exemption on production and use of PCNs in the production of

				polyfluorinated naphthalenes, including octafluoronaphthalene;
	Section IV. Article 5: Measures to reduce or eliminate releases from unintentional production (PCDD/PCDF)	✓ developing, reviewing and updating of an action plan designed to identify, characterize and address the release of the chemicals listed in Annex C (information on status, year, difficulties encountered, participation in any regional or sub-regional action plan);	2.4 Implementation status	✓ status of the previous NIP(s) implementation at the national level;
		✓ development of source inventories and release estimates of the chemicals listed in Annex C to the Convention taking into consideration the source categories identified in Annex or difficulties encountered (information on status or difficulties encountered);	2.3.8 Assessment of releases of unintentional produced chemicals (Annex C)	✓ information on the development of source inventories and release estimates status and difficulties encountered
	Section IV. Article 5: Measures to reduce or eliminate releases from unintentional production (BAT/BEP)	✓ undertaking an evaluation of the efficacy of the laws and policies adopted to manage releases of unintentionally produced persistent organic pollutants (information on status and year);	2.3.8 Assessment of releases of unintentional produced chemicals (Annex C)	✓ existing laws and policies relating to the management of releases of unintentionally produced persistent organic pollutants and their effectiveness and deficiencies;
		✓ promoting or introducing requirements for use of best available techniques (BAT) and best environmental practices (BEP) for new sources and existing sources (information on status and year for new and existing sources);	2.3.8 Assessment of releases of unintentional produced chemicals (Annex C)	✓ situation regarding BAT/BEP implementation within industries and facilities listed in Annex C;

	Section V. Article 6: Measures to reduce or eliminate releases from stockpiles and wastes	✓ developing strategies for identifying stockpiles consisting of, or containing, chemicals listed in either Annex A or Annex B to the Convention (information on status, year, type of chemical, difficulties encountered);	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	✓ existent strategies for identifying stockpiles consisting of, or containing, chemicals listed in either Annex A or Annex B to the Convention;
		✓ identification of stockpiles consisting of, or containing, chemicals listed in Annex A or Annex B to the Convention (information on status, year, type of chemical);	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	✓ stockpiles consisting of, or containing, chemicals listed in Annex A or Annex B to the Convention;
		✓ quantification the stockpiles consisting of, or containing, chemicals listed in Annex A or Annex B to the Convention (information on status, year, type of chemical);		
		✓ measures to manage stockpiles in a safe, efficient and environmentally sound manner (information on status, year, type of chemical);	2.3.9 Information on the state of knowledge on stockpiles, contaminated sites and wastes, identification, likely	✓ measures to manage stockpiles in a safe, efficient and environmentally sound manner;

			numbers, relevant regulations, guidance, remediation measures, and data on releases from sites	
		✓ developing strategies for identifying products and articles in use and wastes consisting of, containing, or contaminated with chemicals listed in Annex A, B or C (information on status, year, type of chemical or difficulties encountered);	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	✓ measures to identify and label, where appropriate, POP-containing products and articles in use; ✓ measures to identify and label, where appropriate, waste containing POPs;
		✓ measures to manage wastes, including products and articles upon becoming wastes (information on status, year, type of chemical);	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	✓ measures to manage wastes, including products and articles upon becoming wastes;

		✓ disposing of wastes consisting of or containing chemicals listed in Annex A, B, or C to the Convention in an environmentally sound manner (information on status, year, type of chemical or difficulties encountered);	2.3.16 Overview of technical infrastructure for POPs management and destruction	✓ disposal and destruction options for POPs pesticides and PCBs stockpiles and wastes, POP-PBDE containing articles and materials, HBCD containing products and articles, PFOS-containing articles, HCBD containing products and articles, PCN containing products and articles;
		✓ developing strategies for identifying sites contaminated by chemicals listed in Annex A, B or C (information on status, year, type of chemical);	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	✓ strategies for identifying sites contaminated by chemicals listed in Annex A, B or C;
		✓ identification of sites contaminated by chemicals listed in Annex A, B or C (information on status, year, type of chemical);	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	✓ sites potentially contaminated with POPs pesticides, PCBs, POP-PBDEs, HBCD, PFOS, HCBD, PCNs and UPOPs;

		✓ taking steps to remediate the sites contaminated by chemicals listed in Annex A, B or C (information on status, year or difficulties encountered);	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	✓ steps taken to remediate the sites contaminated by chemicals listed in Annex A, B or C;
	Section VI. Information required in paragraph 2 of Article 15 of the Convention	✓ submission of a report on the production and use of DDT in a format provided by the Secretariat (information on status and year);		
	Section VII. Article 9: Information exchange	✓ establishing an information exchange mechanism (information on status and year);	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	✓ description of the mechanism for information exchange with other Parties to the Convention;
	Section VIII. Article 10: Public information,	✓ measures to implement Article 10 of the Convention (information on status, year, type of public	2.3.12 Current level of information, awareness, and education among	✓ level of information, awareness, and education among target groups on POPs negative effects on human health and environment;

	awareness and education	information, awareness and education or difficulties encountered);	target groups; existing systems to communicate such information to the various groups;	✓ existing systems to communicate the negative effects of POPs on human health and environment to the various groups;
	Section IX. Article 11: Research, development and monitoring	✓ undertaking any research, development, and monitoring and cooperation pertaining to persistent organic pollutants, and where relevant, to their alternatives and to candidate persistent organic pollutants (information on status, type of action, year, type of activity or difficulties encountered);	2.3.11 Existing programmes for monitoring releases and environmental and human health impacts, including findings 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 2.3.17 Identification of impacted populations or environments, estimated scale and magnitude of threats to public	✓ existent programmes for monitoring releases and environmental and human health impacts; ✓ POPs monitoring findings; ✓ technical infrastructure for POPs assessment; ✓ description of POPs measurement, analysis, alternatives and prevention measures; ✓ POPs research and development activities; ✓ overview on impacted populations or environments, estimated scale and magnitude of threats to public health and environmental quality, and social implications for workers and local communities;

			health and environmental quality, and social implications for workers and local communities	
Part C: Information on progress in eliminating polychlorinated biphenyls (PCB) in accordance with subparagraph (g) of Part II of Annex A to the Convention	Section I. Article 6: Measures to reduce or eliminate releases from stockpiles and wastes	✓ developing strategies for identifying stockpiles consisting of or containing greater than 0.005% (50 ppm) PCB (information on status, year, types of elements included in the strategies);	2.3.2 Assessment of PCBs (Annex A, Part II)	✓ legal, institutional, regulatory, and enforcement systems for PCBs management;
		✓ developing strategies for identifying products and articles in use and wastes consisting of, containing or contaminated with greater than 0.005% (50 ppm) PCB (information on status, year, types of elements included in the strategies);	2.3.2 Assessment of PCBs (Annex A, Part II)	✓ legal, institutional, regulatory, and enforcement systems for PCBs management;
		✓ developing strategies for identifying products and articles containing more than 0.005% (50 ppm) PCB contaminated through open applications of PCB (e.g. cable-sheaths, cured caulk and painted objects) (information on status, year, types of elements included in the strategies);	2.3.2 Assessment of PCBs (Annex A, Part II)	✓ legal, institutional, regulatory, and enforcement systems for PCBs management;

		✓ taking any measures to ensure PCB or products and articles containing greater than 0.005% (50 ppm) PCB identified as wastes are managed in an environmentally sound manner (information on status, year, types of measures);	2.3.2 Assessment of PCBs (Annex A, Part II) 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	✓ legal, institutional, regulatory, and enforcement systems for PCBs management;
		✓ developing strategies for identifying sites contaminated by greater than 0.005% (50 ppm) PCB (information on status and year);	2.3.2 Assessment of PCBs (Annex A, Part II)	✓ legal, institutional, regulatory, and enforcement systems for PCBs management;
		✓ identification of sites contaminated by greater than 0.005% (50 ppm) PCB (information on status and year);	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	✓ sites potentially contaminated / contaminated by PCBs;

			on releases from sites	
	Section II. Part II of Annex A: Polychlorinated biphenyls	✓ taking measures to identify and label, where appropriate, equipment in use containing greater than 0.005% (50 ppm) PCB (information on status, year, types of measures);	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	✓ measures to identify and label, where appropriate, POP-containing products and articles in use;
		✓ taking measures to identify and/or label, where appropriate, wastes liable to contain greater than 0.005% (50 ppm) PCB (information on status, year, types of measures);	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	✓ measures to identify and label, where appropriate, waste containing POPs;
		✓ taking measures to identify articles containing more than 0.005% (50 ppm) PCB contaminated through open applications of PCB (e.g. cable-sheaths, cured caulk and	2.3.9 Information on the state of knowledge on stockpiles, contaminated sites	✓ measures to identify and label, where appropriate, POPs in open applications;

		painted objects) (information on status, year, types of measures);	and wastes, identification, likely numbers, relevant regulations, guidance, remediation measures, and data on releases from sites	
		✓ development of a specific plan for the management, phase-out and disposal of PCB (information on status, year or difficulties encountered);	2.3.2 Assessment of PCBs (Annex A, Part II)	✓ legal, institutional, regulatory, and enforcement systems for PCBs management;
		✓ promoting any measures to reduce exposures from the use of PCB (information on status, year and types of measures);	2.3.2 Assessment of PCBs (Annex A, Part II)	✓ legal, institutional, regulatory, and enforcement systems for PCBs management;
		✓ undertaking an inventory of PCB in equipment (e.g. transformers, capacitors or other receptacles containing liquid stocks), articles, oils and waste (information on status, type of inventory preliminary/complete or difficulties encountered);	2.3.2 Assessment of PCBs (Annex A, Part II)	✓ inventory of PCBs containing equipment in use and out of use;
Part D: Information specifically on the progress made in		✓ registering for any of the specific exemptions related to PFOS listed in Annex B to the Convention (information on status and type of specific exemption);	2.3.10 Summary of future production, use, and releases of POPs – requirements for exemptions	✓ necessity to register for the allowed PFOS and related chemicals specific exemptions;

eliminating perfluorooctane sulfonic acid, its salts and perfluorooctane sulfonyl fluoride in accordance with paragraph 3 in Part III of Annex B to the Convention		✓ registering for any of the acceptable purposes related to PFOS listed in Annex B to the Convention (information on status and type of acceptable purpose);	2.3.10 Summary of future production, use, and releases of POPs – requirements for exemptions	✓ necessity to register for the allowed PFOS and related chemicals acceptable purposes;
		✓ reviewing the continued need for the specific exemption(s) and/or acceptable purpose(s) (information on status and details of review);		
		✓ development and implementation of an action plan with the goal of reducing and ultimately eliminating the production and/or use of PFOS, as Parties are encouraged to do in accordance with paragraph 4 (b) of Part III of Annex B (information on status and year);	2.3.7 Assessment of PFOS, its salts and PFOSF (Annex B, Part III) 2.4 Implementation status	✓ legal, institutional, regulatory, and enforcement systems for PFOS and related chemicals and articles and materials containing PFOS and related chemicals, including for contaminated sites; ✓ status of the previous NIP(s) implementation at the national level;
		✓ actions to phase out the use of PFOS as safer alternative substances or methods have become available, as Parties are encouraged to do in accordance with paragraph 4 (a) of Part III of Annex B (information on status, types of alternative substances or methods or difficulties encountered);	2.3.7 Assessment of PFOS, its salts and PFOSF (Annex B, Part III)	✓ legal, institutional, regulatory, and enforcement systems for PFOS and related chemicals and articles and materials containing PFOS and related chemicals, including for contaminated sites;
		✓ taking action to promote research on and development of safe alternative chemicals and non-	2.3.7 Assessment of PFOS, its salts and	✓ legal, institutional, regulatory, and enforcement systems for PFOS and related chemicals and articles and

		chemical products and processes, methods and strategies to the use of PFOS as parties are encouraged to do so in accordance with paragraph 4 (c) of Part III of Annex B (information on status, types of actions or difficulties encountered);	PFOSF (Annex B, Part III)	materials containing PFOS and related chemicals, including for contaminated sites;
		✓ taking action to build the capacity to transfer safely to reliance on alternatives to PFOS, its salts and PFOSF in accordance with paragraph 5 (d) of Part III of Annex B (information on status or difficulties encountered);	2.3.7 Assessment of PFOS, its salts and PFOSF (Annex B, Part III)	✓ legal, institutional, regulatory, and enforcement systems for PFOS and related chemicals and articles and materials containing PFOS and related chemicals, including for contaminated sites;

Table 16. Overview of the overlapping and gaps between qualitative information of other reporting obligations under Stockholm Convention and NIP

POPs	Other reporting obligations under Stockholm Convention qualitative information			NIP qualitative information	
	Part/Section	Section	Information requested	Sub-chapter	Information generated
UPOPs	**Part B: Information on the measures taken by the Party to implement the provisions of the Stockholm**	Section IV. Article 5: Measures to reduce or eliminate releases from unintentional production (PCDD/PCDF)	✓ developing, reviewing and updating of an action plan designed to identify, characterize and address the release of the chemicals listed in Annex C (information on status, year, difficulties	2.4 Implementation status	✓ status of the previous NIP(s) implementation at the national level;

	Convention and on the effectiveness of such measures in meeting the objectives of the Convention		encountered, participation in any regional or sub-regional action plan);		
			✓ development of source inventories and release estimates of the chemicals listed in Annex C to the Convention taking into consideration the source categories identified in Annex or difficulties encountered (information on status or difficulties encountered);	2.3.8 Assessment of releases of unintentional produced chemicals (Annex C)	✓ information on the development of source inventories and release estimates status and difficulties encountered;
		Section IV. Article 5: Measures to reduce or eliminate releases from unintentional production (BAT/BEP)	✓ undertaking an evaluation of the efficacy of the laws and policies adopted to manage releases of unintentionally produced persistent organic pollutants (information on status and year);	2.3.8 Assessment of releases of unintentional produced chemicals (Annex C)	✓ existing laws and policies relating to the management of releases of unintentionally produced persistent organic pollutants and their effectiveness and deficiencies;
			✓ promoting or introducing requirements for use of best available techniques (BAT) and best environmental practices (BEP) for new sources and existing sources (information on status and year for new and existing sources);	2.3.8 Assessment of releases of unintentional produced chemicals (Annex C)	✓ situation regarding BAT/BEP implementation within industries and facilities listed in Annex C;

PCBs	**Part C: Information on progress in eliminating polychlorinated biphenyls (PCB) in accordance with subparagraph (g) of Part II of Annex A to the Convention**	Section I. Article 6: Measures to reduce or eliminate releases from stockpiles and wastes	✓ developing strategies for identifying stockpiles consisting of or containing greater than 0.005% (50 ppm) PCB (information on status, year, types of elements included in the strategies);	2.3.2 Assessment of PCBs (Annex A, Part II)	✓ legal, institutional, regulatory, and enforcement systems for PCBs management;
			✓ developing strategies for identifying products and articles in use and wastes consisting of, containing or contaminated with greater than 0.005% (50 ppm) PCB (information on status, year, types of elements included in the strategies);	2.3.2 Assessment of PCBs (Annex A, Part II)	✓ legal, institutional, regulatory, and enforcement systems for PCBs management;
			✓ developing strategies for identifying products and articles containing more than 0.005% (50 ppm) PCB contaminated through open applications of PCB (e.g. cable-sheaths, cured caulk and painted objects) (information on status,	2.3.2 Assessment of PCBs (Annex A, Part II)	✓ legal, institutional, regulatory, and enforcement systems for PCBs management;

			year, types of elements included in the strategies);		
			✓ taking any measures to ensure PCB or products and articles containing greater than 0.005% (50 ppm) PCB identified as wastes are managed in an environmentally sound manner (information on status, year, types of measures);	2.3.2 Assessment of PCBs (Annex A, Part II) 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	✓ legal, institutional, regulatory, and enforcement systems for PCBs management;
			✓ developing strategies for identifying sites contaminated by greater than 0.005% (50 ppm) PCB (information on status and year);	2.3.2 Assessment of PCBs (Annex A, Part II)	✓ legal, institutional, regulatory, and enforcement systems for PCBs management;
			✓ identification of sites contaminated by greater than 0.005% (50 ppm) PCB (information on status and year);	2.3.9 Information on the state of knowledge on stockpiles, contaminated sites and wastes, identification, likely	✓ sites potentially contaminated / contaminated by PCBs;

				numbers, relevant regulations, guidance, remediation measures, and data on releases from sites	
		Section II. Part II of Annex A: Polychlorinated biphenyls	✓ taking measures to identify and label, where appropriate, equipment in use containing greater than 0.005% (50 ppm) PCB (information on status, year, types of measures);	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	✓ measures to identify and label, where appropriate, POP-containing products and articles in use;
			✓ taking measures to identify and/or label, where appropriate, wastes liable to contain greater than 0.005% (50 ppm) PCB (information on status, year, types of measures);	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	✓ measures to identify and label, where appropriate, waste containing POPs;

			✓ taking measures to identify articles containing more than 0.005% (50 ppm) PCB contaminated through open applications of PCB (e.g. cable-sheaths, cured caulk and painted objects) (information on status, year, types of measures);	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	✓ measures to identify and label, where appropriate, POPs in open applications;
			✓ development of a specific plan for the management, phase-out and disposal of PCB (information on status, year or difficulties encountered);	2.3.2 Assessment of PCBs (Annex A, Part II)	✓ legal, institutional, regulatory, and enforcement systems for PCBs management;
			✓ promoting any measures to reduce exposures from the use of PCB (information on status, year and types of measures);	2.3.2 Assessment of PCBs (Annex A, Part II)	✓ legal, institutional, regulatory, and enforcement systems for PCBs management;
			✓ undertaking an inventory of PCB in equipment (e.g. transformers, capacitors or other receptacles containing liquid stocks), articles, oils and waste (information on status,	2.3.2 Assessment of PCBs (Annex A, Part II)	✓ inventory of PCBs containing equipment in use and out of use;

			type of inventory preliminary/complete or difficulties encountered);		
POP-PBDEs		**I**	✓ registration for a specific exemption related to brominated diphenyl ethers in accordance with part IV and/or part V of Annex A to the Stockholm Convention;	2.3.10 Summary of future production, use, and releases of POPs – requirements for exemptions	✓ projections on production, use, and releases of POPs; ✓ need for specific exemptions and/or acceptable purposes;
			✓ undertaking any review of its continuing need for registration of the continued need for a specific exemption for hexabromodiphenyl ether and heptabromodiphenyl ether and/or tetrabromodiphenyl ether and pentabromodiphenyl ether or difficulties encountered;	2.3.10 Summary of future production, use, and releases of POPs – requirements for exemptions	✓ projections on production, use, and releases of POPs; ✓ need for specific exemptions and/or acceptable purposes;
		II	✓ taking any actions or control measures to eliminate brominated diphenyl ethers contained in articles (information on status, year, types of actions or control measures or difficulties encountered);	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)	✓ 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), including for contaminated sites;
		III	✓ identification of articles in use that contain or may contain brominated diphenyl ethers	2.3.3 Assessment of POP-PBDEs (Annex A, Part IV and Part V), HBB	✓ articles in use that contain or may contain brominated diphenyl ethers (information on types of

			(information on types of articles or difficulties encountered);	(Annex A, Part I) and HBCD (Annex A, Part I and Part VII)	articles or difficulties encountered);
		IV	✓ taking measures to dispose of articles that contain or may contain brominated diphenyl ethers in an environmentally sound manner (information on types of measures and/or articles or difficulties encountered);	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)	✓ 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), including for contaminated sites; ✓ availability of appropriate recycling facilities and a labelling system marking the presence of POPPBDEs; ✓ availability of appropriate waste management systems; and end-of-life treatment; ✓ appropriate and effective monitoring and reporting of POP-PBDE-containing materials, equipment use, movement, sale, and disposal; ✓ BAT/BEP implementation for the recycling and waste disposal of articles containing POP-PBDEs;
		V	✓ recycled articles that contain or may contain brominated diphenyl ether (information on actions or control measures taken to ensure that recycling is carried out in an environmentally sound	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)	✓ 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

			manner, types of articles, difficulties encountered);		related wastes), including for contaminated sites; ✓ availability of appropriate recycling facilities and a labelling system marking the presence of POPPBDEs; ✓ BAT/BEP implementation for the recycling and waste disposal of articles containing POP-PBDEs; ✓ products and articles containing POP-PBDEs in the recycling streams (information on types of articles);
		VI	✓ putting in place measures to separate articles containing brominated diphenyl ethers before recycling (information on types of measures or difficulties encountered);	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)	✓ 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), including for contaminated sites; ✓ BAT/BEP implementation for the recycling and waste disposal of articles containing POP-PBDEs;
		VII	✓ using articles manufactured from recycled materials that contain or may contain brominated diphenyl ethers (information on status, types of articles);	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)	✓ types of used articles that are manufactured from POP-PBDEs-containing materials;

		VIII	✓ disposing of articles manufactured from recycled materials that contain or may contain brominated diphenyl ethers (information on status, types of actions or control measures to ensure that it is carried out in an environmentally sound manner or difficulties encountered);	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) 2.3.9 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	✓ types of disposed articles that are manufactured from POP-PBDEs-containing materials;
		IX	✓ taken any steps to prevent the export of articles manufactured from recycled materials that contain levels or concentrations of brominated diphenyl ethers exceeding those permitted for the sale, use, import or manufacture of those articles within its territory (information on status, year, types of	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)	✓ 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), including for contaminated sites;

			measures or difficulties encountered);		
DDT	**Section A: Production and use of DDT**	A.I. Sources of DDT	✓ production facility and location; ✓ DDT repackaged/reformulated in the country (information on origin of active ingredient and repackaging/reformulation facility); ✓ DDT exported (information on facility and destination country); ✓ DDT imported (information on country from which DDT is imported and name of manufacturer);	2.3.1 Assessment of POPs pesticides (Annex A, Part I) 2.3.6 Assessment with respect to DDT (Annex B, Part II)	✓ production facility and location; ✓ DDT repackaged/reformulated in the country; ✓ DDT exported/ imported;
		A.II. Stock information	✓ usable stocks of DDT (information on location and conditions of storage);	2.3.1 Assessment of POPs pesticides (Annex A, Part I) 2.3.6 Assessment with respect to DDT (Annex B, Part II)	✓ DDT stocks in use;
		A.III. DDT use	✓ using DDT for disease vector control (information on status);	2.3.1 Assessment of POPs pesticides (Annex A, Part I) 2.3.6 Assessment with respect to DDT (Annex B, Part II)	✓ DDT use for disease vector control;
			✓ planning to use DDT for disease vector control in the future;	2.3.10 Summary of future production, use, and releases of	✓ need for specific exemptions and/or acceptable purposes;

				POPs – requirements for exemptions	
			✓ using DDT for any other purpose besides disease vector control (information on status);	2.3.1 Assessment of POPs pesticides (Annex A, Part I) 2.3.6 Assessment with respect to DDT (Annex B, Part II)	✓ DDT use for any other purpose besides disease vector control;
			✓ involvement of non-government agencies in using DDT for disease vector control purposes (information on status);	2.3.14 Relevant activities of non-governmental stakeholders	✓ activities of non-governmental stakeholders on POPs
			✓ type of disease and main vector species targeted by DDT used for disease vector control;	2.3.1 Assessment of POPs pesticides (Annex A, Part I) 2.3.6 Assessment with respect to DDT (Annex B, Part II)	✓ disease and main vector species targeted by DDT used for disease vector control;
		A.IV. Regulation and control	✓ national laws and regulations governing or restricting the purchase or use of DDT (information on status and degree of enforcement);	2.3.1 Assessment of POPs pesticides (Annex A, Part I) 2.3.6 Assessment with respect to DDT (Annex B, Part II)	✓ legal and institutional framework for control of the production, use, import, export and environmentally sound management and disposal of the pesticides, listed in Annexes A and B of the Convention, including for contaminated sites
			✓ quality control on the product in the country, if DDT is produced or imported (information on status);	2.3.19 Details of any relevant system for the assessment and regulation of	✓ description of the system for the assessment and regulation of chemicals already in the market;

				chemicals already in the market	
			✓ surveillance mechanism for monitoring of DDT resistance (information on status);	2.3.11 Existing programmes for monitoring releases and environmental and human health impacts, including findings	✓ existent programmes for monitoring releases and environmental and human health impacts; ✓ POPs monitoring findings;
			✓ bioassay test procedures used for detecting DDT resistance (information on vector species, DDT concentration & exposure time (mins.), % mortality, year last tested, geographical area concerned);		
			✓ resistance observed for the other insecticides used in disease vector control (information on status and vectors for each chemical group);		
	Section B: DDT alternatives (insecticides, methods and strategies)	B.I. Disease management strategies	✓ integrated vector management (IVM) strategy endorsed at the national level (information on status and implementation coverage);	2.3.1 Assessment of POPs pesticides (Annex A, Part I) 2.3.6 Assessment with respect to DDT (Annex B, Part II)	✓ legal and institutional framework for control of the production, use, import, export and environmentally sound management and disposal of the pesticides, listed in Annexes A and B of the Convention, including for contaminated sites;
			✓ research into the development and testing of locally appropriate	2.3.15 Overview of technical infrastructure for	✓ description of POPs measurement, analysis, alternatives and prevention measures;

			alternative intervention to DDT (information on status and type of research/testing);	POPs assessment, measurement, analysis, alternatives and prevention measures, research and development – linkage to international programmes and projects	✓ POPs research and development activities;
		B.II. Alternatives to DDT	✓ DDT alternatives used (information on alternative control interventions, disease targeted and source (country) (import/local));	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	✓ description of POPs measurement, analysis, alternatives and prevention measures; ✓ POPs research and development activities;
			✓ implementation of resistance management strategy, if alternative insecticides to DDT are used (information on status);		
			✓ DDT alternatives that have been used but are no longer in use (information on alternative control interventions, disease		

			targeted, year of last use and reasons why the use was stopped (import/local));		
	Section C: General human and environmental safety issues		✓ programme to raise awareness amoung communities and households on safety issues relating to DDT use in disease vector control (information on status);	2.3.12 Current level of information, awareness, and education among target groups; existing systems to communicate such information to the various groups;	✓ awareness raising amoung communities and households on safety issues relating to DDT use in disease vector control;
			✓ agencies responsible for assessing the risks posed by the use of insecticides to public health (information on status);	2.3.19 Details of any relevant system for the assessment and regulation of chemicals already in the market	✓ description of the system for the assessment and regulation of chemicals already in the market;
			✓ system in place to monitor exposure to DDT (information on status);	2.3.11 Existing programmes for monitoring releases and environmental and human health impacts, including findings	✓ existent programmes for monitoring releases and environmental and human health impacts; ✓ POPs monitoring findings;
	Section D: Systems strengthening in disease vector control		✓ training facilities on insecticide use for disease vector control (information on status);		
			✓ training conducted on insecticide use for vector control (information on status);		
			✓ existence of formal mechanisms for inter-		

			sectoral collaboration in disease vector control (information on status);		
			✓ collaboration between formal mechanisms (information on status);		
			✓ using entomology laboratory for vector resistance testing (information on status and international recognition);		
PFOS	**I. Information on PFOS, its salts and PFOSF**	1. Production of PFOS, its salts and PFOSF	✓ chemical names/CAS numbers of the chemicals produced; ✓ purpose of the production and the years in which the chemicals were produced;	2.3.7 Assessment of PFOS, its salts and PFOSF (Annex B, Part III)	✓ types of the chemicals produced exported, imported, exported and used; ✓ purpose of the production, import, export and use;
		2. Import of PFOS, its salts and PFOSF	✓ chemical names/CAS numbers of the chemicals imported; ✓ purpose of the import, the countries from which the chemicals were imported and the years in which the chemicals were;	2.3.7 Assessment of PFOS, its salts and PFOSF (Annex B, Part III)	✓ types of the chemicals produced exported, imported, exported and used; ✓ purpose of the production, import, export and use;
		3. Export of PFOS, its salts and PFOSF	✓ chemical names/CAS numbers of the chemicals exported; ✓ purpose of the export, countries to which the chemicals were exported and the years in which the chemicals were exported;	2.3.7 Assessment of PFOS, its salts and PFOSF (Annex B, Part III)	✓ types of the chemicals produced exported, imported, exported and used; ✓ purpose of the production, import, export and use;
		4. Use of PFOS, its salts and PFOSF	✓ chemical names/CAS numbers of the chemicals used;	2.3.7 Assessment of PFOS, its salts and	✓ types of the chemicals produced exported, imported, exported and used;

			✓ purpose of the use and the years in which the chemicals were used;	PFOSF (Annex B, Part III)	✓ purpose of the production, import, export and use;
		5. Continued need for acceptable purposes and specific exemptions	✓ registration for any of the acceptable purposes or specific exemptions for PFOS, its salts and PFOSF;	2.3.10 Summary of future production, use, and releases of POPs – requirements for exemptions	✓ need for specific exemptions and/or acceptable purposes;
			✓ review of the continued need for those acceptable purposes or specific exemptions;	2.3.10 Summary of future production, use, and releases of POPs – requirements for exemptions	✓ need for specific exemptions and/or acceptable purposes;
		6. Progress in eliminating PFOS, its salts and PFOSF	✓ progress in eliminating PFOS, its salts and PFOSF;	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	✓ progress in eliminating the POPs listed in Annexes A and/or B;
		7. Progress in building the capacity of countries to transfer safely to reliance on alternatives	✓ progress in building the capacity to transfer safely to reliance on alternatives;	2.3.7 Assessment of PFOS, its salts and PFOSF (Annex B, Part III)	✓ experiences of using PFOS alternatives in the areas of the allowed acceptable purposes and specific exemptions;

		8. Research/development of safe alternatives	✓ research on and development of safe alternatives to PFOS, its salts and PFOSF as stipulated in paragraph 4 (c) of part III of Annex B to the Convention;	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	✓ description of POPs measurement, analysis, alternatives and prevention measures; ✓ POPs research and development activities;
	II. Information on sulfluramid	1. Production of sulfluramid	✓ purpose of the production and the years in which the chemicals were produced;	2.3.7 Assessment of PFOS, its salts and PFOSF (Annex B, Part III)	✓ purpose of the production, import, export and use;
		2. Import of sulfluramid	✓ purpose of the import, the countries from which the chemicals were imported and the years in which the chemicals were imported;	2.3.7 Assessment of PFOS, its salts and PFOSF (Annex B, Part III)	✓ purpose of the production, import, export and use;
		3. Export of sulfluramid	✓ purpose of the export, countries to which the chemicals were exported and the years in which the chemicals were exported;	2.3.7 Assessment of PFOS, its salts and PFOSF (Annex B, Part III)	✓ purpose of the production, import, export and use;
		4. Use of sulfluramid	✓ purpose of the use and the years in which the chemicals were used;	2.3.7 Assessment of PFOS, its salts and PFOSF (Annex B, Part III)	✓ purpose of the production, import, export and use;
		5. Local monitoring of releases of PFOS from the use of sulfluramid	✓ conducting local monitoring of releases of PFOS from the use of sulfluramid;	2.3.11 Existing programmes for monitoring releases and environmental	✓ existent programmes for monitoring releases and environmental and human health impacts;

				and human health impacts, including findings	✓ POPs monitoring findings;
	III. Information on alternatives to PFOS, its salts, PFOSF and their related chemicals (chemical/non-chemical alternatives or processes)	1. Application	✓ relevant application of the alternatives to PFOS, its salts, PFOSF and their related chemicals (chemical/non-chemical alternatives or processes);	2.3.7 Assessment of PFOS, its salts and PFOSF (Annex B, Part III)	✓ experiences of using PFOS alternatives in the areas of the allowed acceptable purposes and specific exemptions;
		2. Description of alternative	✓ chemical name, CAS number and trade names of the alternative; ✓ name of the chemical substituted; ✓ characteristics of the non-chemical alternatives or processes;	2.3.7 Assessment of PFOS, its salts and PFOSF (Annex B, Part III)	✓ experiences of using PFOS alternatives in the areas of the allowed acceptable purposes and specific exemptions;
		3. Is the alternative economically viable?	✓ economic viability of the alternatives to PFOS, its salts, PFOSF and their related chemicals; ✓ cost-effectiveness, including environmental, health and socio-economic costs;	2.3.7 Assessment of PFOS, its salts and PFOSF (Annex B, Part III)	✓ experiences of using PFOS alternatives in the areas of the allowed acceptable purposes and specific exemptions;
		4. Is the alternative technically feasible? What is its efficacy?	✓ demonstration of equivalent function and providing similar product performance characteristics by the alternatives to PFOS, its salts, PFOSF and their related chemicals; ✓ efficacy, including performance, benefits and limitations of the	2.3.7 Assessment of PFOS, its salts and PFOSF (Annex B, Part III)	✓ experiences of using PFOS alternatives in the areas of the allowed acceptable purposes and specific exemptions;

			alternatives to PFOS, its salts, PFOSF and their related chemicals; ✓ whether the alternatives to PFOS, its salts, PFOSF and their related chemicals have actually been implemented or are at the trial or proposal stage;		
		5. Is the alternative available on the market? How accessible is it?	✓ availability on the market and readiness for immediate use of the alternatives to PFOS, its salts, PFOSF and their related chemicals; ✓ geographic, legal or other limiting factors affecting the use of the alternatives to PFOS, its salts, PFOSF and their related chemicals;	2.3.7 Assessment of PFOS, its salts and PFOSF (Annex B, Part III)	✓ experiences of using PFOS alternatives in the areas of the allowed acceptable purposes and specific exemptions;
		6. Health/environmental effects including POPs characteristics and other hazards	✓ classification according to the Global Harmonization System or other systems; ✓ exposure (e.g. monitoring data) and environmental fate of the chemical;	2.3.7 Assessment of PFOS, its salts and PFOSF (Annex B, Part III)	✓ experiences of using PFOS alternatives in the areas of the allowed acceptable purposes and specific exemptions;
		7. Risks, taking into account the criteria in Annex D for POPs characteristics and other hazard indicators	✓ testing thoroughly or evaluating the alternatives to PFOS, its salts, PFOSF and their related chemicals to avoid inadvertently increasing risks to human health/environment;	2.3.19 Details of any relevant system for the assessment and regulation of chemicals already in the market	✓ description of the system for the assessment and regulation of chemicals already in the market;
		8. Socio-economic considerations	✓ socio-economic impacts associated with the	2.3.7 Assessment of PFOS, its salts and	✓ experiences of using PFOS alternatives in the areas of the

			alternatives to PFOS, its salts, PFOSF and their related chemicals.	PFOSF (Annex B, Part III)	allowed acceptable purposes and specific exemptions;

I.2 Overlapping and gaps on quantitative data

Table 17. Overview of the overlapping and gaps between quantitative data of Article 15 report and NIP

Article 15 report quantitative data			NIP quantitative data	
Part	**Section**	**Data on**	**Chapter/ Sub-chapter**	**Data on**
Part B: Information on the measures taken by the Party to implement the provisions of the Stockholm Convention and on the effectiveness of such measures in meeting the objectives of the Convention	Section IV. Article 5: Measures to reduce or eliminate releases from unintentional production (PCDD/PCDF)	✓ source inventories and release estimates of PCDD/PCDF;	2.3.8 Assessment of releases of unintentional produced chemicals (Annex C)	✓ source inventories and release estimates of PCDD/PCDF in air, water, land, product and residue (g-TEQ/year);
	Section IV. Article 5: Measures to reduce or eliminate releases from unintentional production (PCBs)	✓ source inventories and release estimates of PCBs;	2.3.8 Assessment of releases of unintentional produced chemicals (Annex C)	✓ source inventories and release estimates of PCBs air, water, land, product and residue (g-TEQ/year);
	Section IV. Article 5: Measures to reduce or eliminate releases from unintentional production (PeCBz)	✓ source inventories and release estimates of PeCBz;	2.3.8 Assessment of releases of unintentional produced chemicals (Annex C)	✓ source inventories and release estimates of PeCBz air, water, land, product and residue (g-TEQ/year);

	Section IV. Article 5: Measures to reduce or eliminate releases from unintentional production (HCB)	✓ source inventories and release estimates of HCB;	2.3.8 Assessment of releases of unintentional produced chemicals (Annex C)	✓ source inventories and release estimates of HCB air, water, land, product and residue (g-TEQ/year);
	Section IV. Article 5: Measures to reduce or eliminate releases from unintentional production (PCN)	✓ source inventories and release estimates of PCN;	2.3.8 Assessment of releases of unintentional produced chemicals (Annex C)	✓ source inventories and release estimates of PCN air, water, land, product and residue (g-TEQ/year);
	Section VI. Information required in paragraph 2 of Article 15 of the Convention	✓ producing any of the chemicals listed in Annex A or Annex B to the Convention (information on type of chemical, year in which the production started/ended and estimated total production [kg]);	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)	✓ Quantity of POPs pesticides produced (tonnes); ✓ Quantity of PCBs produced (tonnes) – historical; ✓ Quantity of POP-PBDEs produced (tonnes) – historical; ✓ Quantity of HBCD produced (tonnes) – historical and current; ✓ Quantity of HCBD by-product (tonnes) and related HCBD content (%); ✓ Quantity of PCNs produced (tonnes) (for using as intermediate for the production of polyfluorinated naphthalenes (PFNs) or for other purposes) – historical and current; ✓ Quantity of PFOS, its salts and PFOS-F produced (tonnes);

			2.3.7 Assessment of PFOS, its salts and PFOSF (Annex B, Part III)	
		✓ exporting any of the chemicals listed in Annex A or Annex B to the Convention (information on year, type of chemical, purpose, destination country and total annual export (kg/year));	2.3.1 Assessment of POPs pesticides (Annex A, Part I) 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) 2.3.7 Assessment of PFOS, its salts and PFOSF (Annex B, Part III)	✓ Quantity of POPs pesticides exported (tonnes); ✓ Quantity of PCP, its salts and esters treated timber exported (for utility poles and cross-arms) (tonnes); ✓ Quantity of POP-PBDEs exported (historical, tonnes); ✓ Quantity of POP-PBDEs in articles/products exported (tonnes); ✓ Quantity of HBCD exported as powder or pellets, as masterbatches, as HBCD containing EPS beads and high impact polystyrene (HIPS) pellets (tonnes); ✓ Quantity of HBCD in articles/products exported (especially EPS and XPS in construction sector and flame retarded textile applications) (tonnes); ✓ Quantity of HCBD exported as by-product (especially for use in agricultural sector, industrial manufacture, purification of gas streams and electrical equipment) (tonnes) – historical and current; ✓ Quantity of exported products and articles containing HCBD (tonnes) – historical and current; ✓ Quantity of PCNs exported (tonnes); ✓ Quantity of PFOS, its salts and PFOS-F exported (tonnes) – historical and current; ✓ Quantity of PFOS, its salts and PFOS-F in articles/products exported (especially firefighting foams and hydraulic fluids) (tonnes) - historical and current;

		✓ importing any of the chemicals listed in Annex A or Annex B to the Convention (information on year, type of chemical, purpose, country of origin and total annual import (kg/year));	2.3.1 Assessment of POPs pesticides (Annex A, Part I) 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) 2.3.7 Assessment of PFOS, its salts and PFOSF (Annex B, Part III)	✓ Quantity of POPs pesticides imported (tonnes); ✓ Quantity of PCP, its salts and esters treated timber imported (for utility poles and cross-arms) (tonnes); ✓ Quantity of POP-PBDEs imported (historical, tonnes); ✓ Quantity of POP-PBDEs in articles/products imported (tonnes); ✓ Quantity of HBCD imported as powder or pellets, as masterbatches, as HBCD containing EPS beads and high impact polystyrene (HIPS) pellets (tonnes); ✓ Quantity of HBCD in articles/products imported (especially EPS and XPS in construction sector and flame retarded textile applications) (tonnes); ✓ Quantity of HCBD imported as by-product (especially for use in agricultural sector, industrial manufacture, purification of gas streams and electrical equipment) (tonnes) – historical and current; ✓ Quantity of imported products and articles containing HCBD (tonnes) – historical and current; ✓ Quantity of PCNs imported (tonnes); ✓ Quantity of PFOS, its salts and PFOS-F imported (tonnes) – historical and current; ✓ Quantity of PFOS, its salts and PFOS-F in articles/products imported (especially firefighting foams and hydraulic fluids) (tonnes) - historical and current;
	Section X. Article 12: Technical assistance	✓ providing technical assistance to another Party (information on status, year, type of technical assistance and total value (US$));	2.4 Implementation status	✓ status of the previous NIP(s) implementation at the national level;

		✓ receiving technical assistance in accordance with Article 12 of the Convention (information on status, year, type of technical assistance and total value (US$));		
	Section XI. Article 13: Financial resources and mechanisms	✓ undertaking to provide, within the capabilities, financial support and incentives in respect of those national activities that are intended to achieve the objectives of the Convention in accordance with national plans, priorities and programmes (information on status, year, total value (US$) for financial support and types of incentives); ✓ providing financial resources to enable developing country Parties and Parties with economies in transition to fulfill their obligations under the Convention (information on status, year, sources or channels through which the resources have been provided, total amount per year (US$), recipients (region/Party)); ✓ providing financial resources in accordance	2.4 Implementation status	✓ status of the previous NIP(s) implementation at the national level;

		with the capabilities and in accordance with national plans, priorities and programmes, to assist developing countries and countries with economies in transition in their implementation of the Convention through other bilateral, regional and multilateral sources or channels (information on status, year, sources or channels through which the resources have been provided, total amount per year (US$), recipients (region/Party));		
Part C: Information on progress in eliminating polychlorinated biphenyls (PCB) in accordance with subparagraph (g) of Part II of Annex A to the Convention	Section II. Part II of Annex A: Polychlorinated biphenyls	✓ identification of articles and materials containing more than 0.005% (50 ppm) PCB contaminated through open applications of PCB (data on type of article and year/period); ✓ proportion of waste containing greater than 0.005% (50 ppm) PCB identified in your country is managed in an environmentally sound manner (data on proportion of articles identified, year in which the environmentally sound management was completed and proportion	2.3.2 Assessment of PCBs (Annex A, Part II)	✓ Number of equipment in service/ out of service; ✓ Total mass of equipment in service/out of service [Kg]; ✓ Mass of liquids (oil) of equipment in service/out of service [Kg]; ✓ PCB content in oil of equipment in service/out of service (%).

		of waste environmentally sound managed); ✓ equipment containing greater than 10% (100,000 ppm) PCB and volumes greater than 5 litres (status of equipment, year of inventory, number of equipment, total mass of equipment [kg], mass of solid parts of equipment (equipment without oil) [kg], mass of liquids (oil) [kg], PCB content in oil (%) and total mass (kg)); ✓ equipment containing greater than 0.05% (500 ppm) PCB and volumes greater than 5 litres (status of equipment, year of inventory, number of equipment, total mass of equipment [kg], mass of solid parts of equipment (equipment without oil) [kg], mass of liquids (oil) [kg], PCB content in oil (%) and total mass (kg)); ✓ equipment containing greater than 0.005% (50 ppm) PCB and volumes greater than 0.05 litres (status of equipment, year of inventory, number of equipment, total mass of equipment [kg], mass of		

		solid parts of equipment (equipment without oil) [kg], mass of liquids (oil) [kg], PCB content in oil (%) and total mass (kg)); ✓ equipment containing an undefined concentration of PCB (status of equipment, year of inventory, number of equipment, total mass of equipment [kg], mass of solid parts of equipment (equipment without oil) [kg], mass of liquids (oil) [kg], PCB content in oil (%) and total mass (kg)); ✓ stored liquids (oil) containing PCB (status of equipment, year of inventory, number of equipment, total mass of equipment [kg], mass of solid parts of equipment (equipment without oil) [kg], mass of liquids (oil) [kg], PCB content in oil (%) and total mass (kg)); ✓ other wastes containing PCB (status of equipment, year of inventory, number of equipment, total mass of equipment [kg], mass of solid parts of equipment (equipment without oil) [kg], mass of liquids (oil)		

		[kg], PCB content in oil (%) and total mass (kg));		
	Section III. Information on local destruction and import and export of PCB for destruction. Local destruction of PCB, in accordance with paragraph 1 d (ii) of Article 6 of the Convention	✓ statistical data of locally destroyed, in an environmentally sound manner, of equipment, liquids, or other wastes containing greater than 0.005% (50 ppm) PCB (e.g. transformers, capacitors or other receptacles containing liquid stocks) (type of PCB, year and quantity (Metric Tons));	2.3.2 Assessment of PCBs (Annex A, Part II) 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	✓ Quantity of PCBs locally destroyed (tonnes);
		✓ statistical data of imported equipment, liquids, or other wastes containing greater than 0.005% (50 ppm) PCB for environmentally sound destruction (type of PCB, year and quantity (Metric Tons));	2.3.2 Assessment of PCBs (Annex A, Part II) 2.3.9 Information on the state of knowledge on stockpiles, contaminated sites and wastes, identification, likely numbers, relevant regulations,	✓ Quantity of PCBs imported for environmentally sound disposal (tonnes);

			guidance, remediation measures, and data on releases from sites	
		✓ statistical data of exported equipment, liquids, or other wastes containing greater than 0.005% (50 ppm) PCB (e.g. transformers, capacitors or other receptacles containing liquid stocks) for environmentally sound destruction (type of PCB, year and quantity (Metric Tons));	2.3.2 Assessment of PCBs (Annex A, Part II) 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	✓ Quantity of PCBs exported for environmentally sound disposal (tonnes);
Part D: Information specifically on the progress made in eliminating perfluorooctane sulfonic acid, its salts and perfluorooctane sulfonyl fluoride in accordance		✓ statistical data on production of PFOS for the acceptable purposes listed in Annex B of the Convention (status, year, type of acceptable purpose and estimated total production (kg));	2.3.7 Assessment of PFOS, its salts and PFOSF (Annex B, Part III)	✓ Quantity of PFOS, its salts and PFOS-F produced as allowed by the /acceptable purposes (tonnes);
		✓ statistical data on your country's production of PFOS for the specific exemptions listed in Annex	2.3.7 Assessment of PFOS, its salts and PFOSF (Annex B, Part III)	✓ Quantity of PFOS, its salts and PFOS-F produced as allowed by the specific exemptions (tonnes);

with paragraph 3 in Part III of Annex B to the Convention		B of the Convention (status, year, type of specific exemption and estimated total production (kg));		
		✓ statistical data on use of PFOS for the acceptable purposes listed in Annex B of the Convention (status, year, type of acceptable purpose and estimated total production (kg));	2.3.7 Assessment of PFOS, its salts and PFOSF (Annex B, Part III)	✓ Quantity of PFOS, its salts and PFOS-F used to manufacture article/products (tonnes) as allowed by the acceptable purposes – historical and current; ✓ Quantity of PFOS, its salts and PFOS-F in article/products in use (tonnes) as allowed by the acceptable purposes – historical and current;
		✓ statistical data on your country's use of PFOS for the specific exemptions listed in Annex B of the Convention (status, year, type of specific exemption and estimated total production (kg));	2.3.7 Assessment of PFOS, its salts and PFOSF (Annex B, Part III)	✓ Quantity of PFOS, its salts and PFOS-F used to manufacture article/products (tonnes) as allowed by the specific exemptions purposes – historical and current; ✓ Quantity of PFOS, its salts and PFOS-F in article/products in use (tonnes) as allowed by the specific exemptions – historical and current;

Table 18. Overview of the overlapping and gaps between quantitative data of other reporting obligations and NIP

POPs	Other reporting obligations quantitative data			NIP quantitative data	
	Part/Section	Section	Data requested	Sub-chapter	Data generated
UPOPs	**Part B: Information on the measures taken by the Party to implement the provisions of the**	Section IV. Article 5: Measures to reduce or eliminate releases from unintentional production (PCDD/PCDF)	✓ source inventories and release estimates of PCDD/PCDF;	2.3.8 Assessment of releases of unintentional produced chemicals (Annex C)	✓ source inventories and release estimates of PCDD/PCDF in air, water, land, product and residue (g-TEQ/year);

	Stockholm Convention and on the effectiveness of such measures in meeting the objectives of the Convention	Section IV. Article 5: Measures to reduce or eliminate releases from unintentional production (PCBs)	✓ source inventories and release estimates of PCBs;	2.3.8 Assessment of releases of unintentional produced chemicals (Annex C)	✓ source inventories and release estimates of PCBs air, water, land, product and residue (g-TEQ/year);
		Section IV. Article 5: Measures to reduce or eliminate releases from unintentional production (PeCBz)	✓ source inventories and release estimates of PeCBz;	2.3.8 Assessment of releases of unintentional produced chemicals (Annex C)	✓ source inventories and release estimates of PeCBz air, water, land, product and residue (g-TEQ/year);
		Section IV. Article 5: Measures to reduce or eliminate releases from unintentional production (HCB)	✓ source inventories and release estimates of HCB;	2.3.8 Assessment of releases of unintentional produced chemicals (Annex C)	✓ source inventories and release estimates of HCB air, water, land, product and residue (g-TEQ/year);
		Section IV. Article 5: Measures to reduce or eliminate releases from unintentional production (PCN)	✓ source inventories and release estimates of PCN;	2.3.8 Assessment of releases of unintentional produced chemicals (Annex C)	✓ source inventories and release estimates of PCN air, water, land, product and residue (g-TEQ/year);
PCBs	**Part C: Information on progress in eliminating polychlorinated biphenyls (PCB) in accordance with subparagraph (g) of Part II of Annex A to the Convention**	Section II. Part II of Annex A: Polychlorinated biphenyls	✓ identification of articles and materials containing more than 0.005% (50 ppm) PCB contaminated through open applications of PCB (data on type of article and year/period); ✓ proportion of waste containing greater than 0.005% (50 ppm) PCB identified in your country is managed in an environmentally sound manner (data on	2.3.2 Assessment of PCBs (Annex A, Part II)	✓ Number of equipment in service/ out of service; ✓ Total mass of equipment in service/out of service [Kg]; ✓ Mass of liquids (oil) of equipment in service/out of service [Kg]; ✓ PCB content in oil of equipment in service/out of service (%).

			proportion of articles identified, year in which the environmentally sound management was completed and proportion of waste environmentally sound managed); ✓ equipment containing greater than 10% (100,000 ppm) PCB and volumes greater than 5 litres (status of equipment, year of inventory, number of equipment, total mass of equipment [kg], mass of solid parts of equipment (equipment without oil) [kg], mass of liquids (oil) [kg], PCB content in oil (%) and total mass (kg)); ✓ equipment containing greater than 0.05% (500 ppm) PCB and volumes greater than 5 litres (status of equipment, year of inventory, number of equipment, total mass of equipment [kg], mass of solid parts of equipment (equipment		

			without oil) [kg], mass of liquids (oil) [kg], PCB content in oil (%) and total mass (kg)); ✓ equipment containing greater than 0.005% (50 ppm) PCB and volumes greater than 0.05 litres (status of equipment, year of inventory, number of equipment, total mass of equipment [kg], mass of solid parts of equipment (equipment without oil) [kg], mass of liquids (oil) [kg], PCB content in oil (%) and total mass (kg)); ✓ equipment containing an undefined concentration of PCB (status of equipment, year of inventory, number of equipment, total mass of equipment [kg], mass of solid parts of equipment (equipment without oil) [kg], mass of liquids (oil) [kg], PCB content in oil (%) and total mass (kg));		

			✓ stored liquids (oil) containing PCB (status of equipment, year of inventory, number of equipment, total mass of equipment [kg], mass of solid parts of equipment (equipment without oil) [kg], mass of liquids (oil) [kg], PCB content in oil (%) and total mass (kg)); ✓ other wastes containing PCB (status of equipment, year of inventory, number of equipment, total mass of equipment [kg], mass of solid parts of equipment (equipment without oil) [kg], mass of liquids (oil) [kg], PCB content in oil (%) and total mass (kg));		
		Section III. Information on local destruction and import and export of PCB for destruction. Local destruction of PCB, in accordance with paragraph 1 d (ii) of	✓ statistical data of locally destroyed, in an environmentally sound manner, of equipment, liquids, or other wastes containing greater than 0.005% (50 ppm)	2.3.2 Assessment of PCBs (Annex A, Part II) 2.3.9 Information on the state of knowledge on stockpiles,	✓ Quantity of PCBs locally destroyed (tonnes);

		Article 6 of the Convention	PCB (e.g. transformers, capacitors or other receptacles containing liquid stocks) (type of PCB, year and quantity (Metric Tons));	contaminated sites and wastes, identification, likely numbers, relevant regulations, guidance, remediation measures, and data on releases from sites	
			✓ statistical data of imported equipment, liquids, or other wastes containing greater than 0.005% (50 ppm) PCB for environmentally sound destruction (type of PCB, year and quantity (Metric Tons));	2.3.2 Assessment of PCBs (Annex A, Part II) 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	✓ Quantity of PCBs imported for environmentally sound disposal (tonnes);
			✓ statistical data of exported equipment, liquids, or other wastes containing greater than 0.005% (50 ppm) PCB (e.g. transformers, capacitors or other receptacles containing liquid stocks) for	2.3.2 Assessment of PCBs (Annex A, Part II) 2.3.9 Information on the state of knowledge on stockpiles, contaminated sites	✓ Quantity of PCBs exported for environmentally sound disposal (tonnes);

			environmentally sound destruction (type of PCB, year and quantity (Metric Tons));	and wastes, identification, likely numbers, relevant regulations, guidance, remediation measures, and data on releases from sites	
PBDEs		**III**	✓ quantity of bromine contained in articles in use that contain or may contain brominated diphenyl ethers;	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)	✓ Quantity of POP-PBDEs used to manufacture article/products (historical, tonnes); ✓ Quantity of POP-PBDEs in article/products in use (especially EEE and vehicles) (tonnes); ✓ Quantity of in polymeric fraction containing POP-PBDEs (tonnes);
		IV	✓ quantitiy of bromine contained in articles disposed of;	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)	✓ Quantity of POP-PBDEs in article/products wastes stockpiles (especially WEEE and end-of-life vehicles (ELVs)) (tonnes); ✓ Quantity of polymeric fraction containing POP-PBDEs (especially contained in WEEE and ELVs) (tonnes);
DDT	Section A: Production and use of DDT	A.I. Sources of DDT	✓ total production capacity (kg);		
			✓ net output per year (kg) ; ✓ formulation (type & % active ingredient (a.i.)) ;	2.3.1 Assessment of POPs pesticides (Annex A, Part I) 2.3.6 Assessment with respect to DDT (Annex B, Part II)	✓ Quantity of POPs pesticides produced (tonnes);

			✓ % for in-country use;	2.3.1 Assessment of POPs pesticides (Annex A, Part I) 2.3.6 Assessment with respect to DDT (Annex B, Part II)	✓ Quantity of POPs pesticides used (tonnes);
			✓ DDT repackaged/ reformulated in the country (data on formulation type, % of active ingredient and quantity per year (kg));		
			✓ DDT exported (data on quantity per year (kg), formulation type and % of active ingredient);	2.3.1 Assessment of POPs pesticides (Annex A, Part I) 2.3.6 Assessment with respect to DDT (Annex B, Part II)	✓ Quantity of POPs pesticides exported (tonnes);
			✓ DDT imported (data on total quantity imported per year (kg), formulation type and % of active ingredient);	2.3.1 Assessment of POPs pesticides (Annex A, Part I) 2.3.6 Assessment with respect to DDT (Annex B, Part II)	✓ Quantity of POPs pesticides imported/exported (tonnes);
		A.II. Stock information	✓ usable stocks of DDT (data on total amount in storage (kg), formulation type and % of active ingredient);	2.3.1 Assessment of POPs pesticides (Annex A, Part I) 2.3.6 Assessment with respect to DDT (Annex B, Part II)	Quantity of POPs pesticides used (tonnes);

		A.III. DDT use	✓ total amount (kg of DDT used annually for disease vector control, including formulation type and % of active ingredient); ✓ % total national population at risk that is covered by DDT use;	2.3.1 Assessment of POPs pesticides (Annex A, Part I) 2.3.6 Assessment with respect to DDT (Annex B, Part II)	Quantity of POPs pesticides used (tonnes);
	Section B: DDT alternatives (insecticides, methods and strategies)	B.II. Alternatives to DDT	✓ DDT alternatives used (data on product, formulation, % of active ingredient and quantity per year (kg));		
			✓ DDT alternatives that have been used but are no longer in use (data on quantity (kg));		
PFOS	I. Information on PFOS, its salts and PFOSF	1. Production of PFOS, its salts and PFOSF	✓ quantities of PFOS, its salts and PFOSF produced per year (kg);	2.3.7 Assessment of PFOS, its salts and PFOSF (Annex B, Part III)	✓ Quantity of PFOS, its salts and PFOS-F produced as allowed by the specific exemptions/acceptable purposes (tonnes);
		2. Import of PFOS, its salts and PFOSF	✓ quantities of PFOS, its salts and PFOSF imported per year (kg);	2.3.7 Assessment of PFOS, its salts and PFOSF (Annex B, Part III)	✓ Quantity of PFOS, its salts and PFOS-F imported (tonnes); ✓ Quantity of PFOS, its salts and PFOS-F in articles/products imported (especially firefighting foams and hydraulic fluids) (tonnes);
		3. Export of PFOS, its salts and PFOSF	✓ quantities of PFOS, its salts and PFOSF exported per year (kg);	2.3.7 Assessment of PFOS, its salts and	✓ Quantity of PFOS, its salts and PFOS-F exported (tonnes);

				PFOSF (Annex B, Part III)	✓ Quantity of PFOS, its salts and PFOS-F in articles/products exported (especially firefighting foams and hydraulic fluids) (tonnes);
		4. Use of PFOS, its salts and PFOSF	✓ quantities of PFOS, its salts and PFOSF used per year (kg);	2.3.7 Assessment of PFOS, its salts and PFOSF (Annex B, Part III)	✓ Quantity of PFOS, its salts and PFOS-F used to manufacture article/products (tonnes) as allowed by the specific exemptions/acceptable purposes; ✓ Quantity of PFOS, its salts and PFOS-F in article/products in use (tonnes) as allowed by the specific exemptions/acceptable purposes;
	II. Information on sulfluramid	1. Production of sulfluramid	✓ quantities of sulfluramid produced per year (kg);	2.3.1 Assessment of POPs pesticides (Annex A, Part I)	✓ Quantity of POPs pesticides produced (tonnes);
		2. Import of sulfluramid	✓ quantities of sulfluramid imported per year (kg);	2.3.1 Assessment of POPs pesticides (Annex A, Part I)	✓ Quantity of POPs pesticides imported (tonnes);
		3. Export of sulfluramid	✓ quantities of sulfluramid exported per year (kg);	2.3.1 Assessment of POPs pesticides (Annex A, Part I)	✓ Quantity of POPs pesticides exported (tonnes);
		4. Use of sulfluramid	✓ quantities of sulfluramid used per year (kg);	2.3.1 Assessment of POPs pesticides (Annex A, Part I)	✓ Quantity of POPs pesticides used (tonnes);
	III. Information on alternatives to PFOS, its salts, PFOSF and their related chemicals (chemical/non-chemical	2. Description of alternative	✓ quantities of production and use of the alternatives to PFOS, its salts, PFOSF and their related chemicals per year (kg);		

	alternatives or processes)	3. Is the alternative economically viable?	✓ general price of the alternative (e.g. USD/kg);		
		6. Health/environmental effects including POPs characteristics and other hazards	✓ data used for assessing POPs characteristics (persistence, bioaccumulation, potential for long-range environmental transport, adverse effects) or other hazards;		