GUIDANCE

Guidance on Supporting the Process of Data Collection, National Reporting and Modality for Final Quality Check

GGKP, 2024

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1. Introduction

The Stockholm Convention on Persistent Organic Pollutants (POPs) is a global treaty to protect human health and the environment from chemicals that remain intact in the environment for long periods, become widely distributed geographically, accumulate in the fatty tissue of humans and wildlife, and have harmful impacts on human health or the environment.

To enable monitoring of the implementation of the Stockholm Convention (SC) by its Parties, the Convention provides that each Party reports to the Conference of the Parties (COP) on the measures it has taken to implement the provisions of the Convention and on the effectiveness of such measures in meeting the objectives of the Convention, as per Article 15.

The purpose of this guidance is to assist the Parties of the Stockholm Convention in organizing the data collection process to update their National Implementation Plans (NIPs) as per Article 7 and complete their national reports in accordance with Article 15 of the Convention.

1.1 National Implementation Plans

As set out in Article 1, the objective of the Stockholm Convention is to protect human health and the environment from persistent organic pollutants.

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). This so-called National Implementation Plan (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.

The NIP preparation process is best envisioned as a long-term and iterative process, rather than a one-time administrative requirement set out by the Convention. Alongside the need to submit NIPs within two years of each of the new listings of POPs under the Convention, the review of NIPs is also key to ensuring that NIPs can be strengthened prior to their submission. It is not the production of the plan itself that is the final goal, but the effective implementation of the identified actions.[1]

According to Article 7 of the Stockholm Convention, each Party shall:

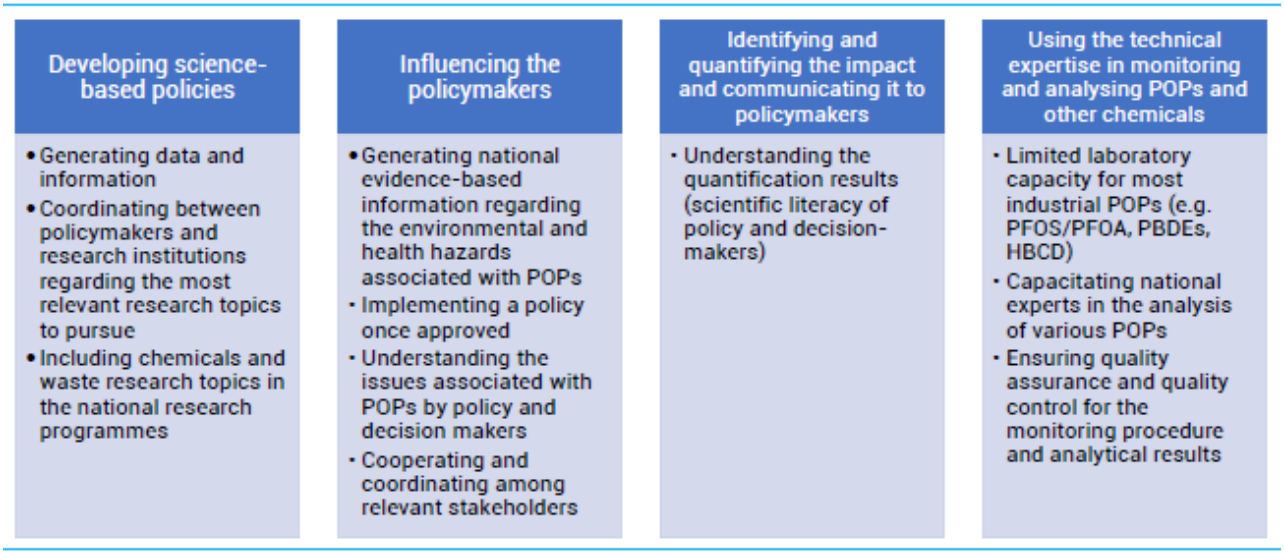
- Develop and endeavour to implement a plan for the implementation of its obligations under the Convention.
- Transmit its implementation plan to the Conference of the Parties within two years of the date on which the Convention enters into force for it.
- Review and update, as appropriate, its implementation plan periodically and in a manner to be specific by a decision of the Conference of the Parties.

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.[2]

As stated in the report "From NIPs to Implementation: Lessons Learned" (UNEP 2018), the remaining challenges for a successful implementation of the NIPs[3] can be seen in the following figure:

[1] UNCCe-Learn Course on National Implementation Plans and the Stockholm Convention on Persistent Organic Pollutants, https://unccelearn.org/course/view.php?id=133&page=course
[2] Guidance documents in http://chm.pops.int/Implementation/NationalImplementationPlans/Guidance/tabid/7730/Default.aspx
[3] From NIPs to Implementation: Lessons Learned report, https://www.unep.org/resources/synthesis-reports/nips-implementation-lessons-learned-report

Figure 1. Remaining challenges within the NIP development, update and implementation



1.2 National reporting

The Stockholm Convention lists 31 persistent organic pollutants (POPs), of which 15 are used as industrial chemicals.

Table 1. POPs listed in the Stockholm Convention (04/2023)

Chemical	Pesticides	Industrial chemicals	Unintentional production	Annex
DDT	x			B
Aldrin, Dieldrin, Chlordane	x			A
Chlordecone, Toxaphene	x			A
Alpha-, Beta-, Gamma-HCH	x		byproduct of lindane	A
Endosulfan, Heptaclor, Mirex	x			A
Pentachlorophenol (PCP), Dicofol	x			A
Commercial PentaBDE		x		A
Commercial OctaBDE (Hexa/HeptaBDE)		x		A
Commercial DecaBDE		x		A
Hexabromobiphenil (HBB)		x		A
Hexabromocyclododecane (HBCD)		x		A
PFOS, its salts and PFOSF	x	x		B
PFOA and related compounds		x		A
PFxS and related compounds		x		A
Short chain chlorinated paraffins		x		A
PCB, PeCBz, HCB, PCN, HCBD	x	x	x	A/C
PCDD, PCDF			x	C

The sectors and supply chains using industrial POPs are very complex compared to agricultural and forestry sectors using pesticides. Even relatively simple products, such as outdoor clothing, could contain many POPs that have been used at different levels of the production process.

Figure 2. Use of industrial POPs in production sectors[4]

Production Sector	deca-BDE	HBCD	HCB	HCBD*	PCP	PFOA, its salts and PFOA related substances	PFOS	SCCPs
Chemicals industry	x	x	(x)	(x)	x	x	x	x
Construction materials	x	x			x		x	x
Electric and electronic appliances	x	x		(x)				
Semi-conductors						x	x	
Automotive parts	x	x				x	x	
Aviation parts	x					x	x	
Medical equipment						x	x	
Leather					x	x	x	x
Plastics	x	x				x	x	x
Rubber				(x)				x
Textile	x	x			x	x		
Metal industry							x	x
Mining								x
Petrochemical							x	x
Forestry					x			
Agriculture							x	
Fire-fighting						x	x	
Fireworks			x					

Tracing the chemicals used in the supply chain and ensuring compliance with potential regulations, could be challenging.[5]

At its eighth meeting in 2017, the Conference of the Parties established a working group to develop a manual for completing the updated format for national reporting under Article 15, aimed at clarifying what is sought in each question and table of the format (decision SC-8/17).[6]

The periodicity of the national reporting is every four years and in accordance with a format as established by the COP at its first meeting (decision SC-1/22).

The reporting format or questionnaire used for the fourth reporting cycle, as per Article 15, is based on decisions adopted by the COP: SC-6/21, SC-7/27, SC-8/17 and BC.Ex 1/1. Additionally, each time the COP lists a new POP in one of the Annexes to the convention, the questionnaire is adapted accordingly.

To enable monitoring of the implementation of the Stockholm Convention by its Parties, the Convention provides that each Party reports to the Conference of the Parties on the measures it has taken to implement the provisions of the Convention and on the effectiveness of such measures in meeting the objectives of the Convention, as per Article 15.

Parties submit their national reports using the Electronic Reporting System (ERS) of the Stockholm Convention through which the reporting format/questionnaire is made available online. Instructions on accessing and submitting information through the ERS are contained in the User Manual for the Electronic Reporting System (ERS) of the Stockholm Convention on Persistent Organic Pollutants (POPs).[7]

All data reporting requirements for national reporting, including complementary information on specific POPs on POPs-PBDEs, PFOS, DDT, uPOPs, PCBs, can be seen in Table 4 and Table 5.

[4] Presentation of Timo Seppälä, Senior officer of the Finnish Environment Institute, at the Workshop Science to Action, Argentina, April 2023, http://www.brsmeas.org/Implementation/CapacityDevelopment/Workshops/WorkshopBuenosAires,ArgentinaApr2023/tabid/9510/language/en-US/Default.aspx

[5] UNEP/POPS/COP.10/INF/55

[6] Manual for national reports under Article 15 of the Stockholm Convention, http://chm.pops.int/Countries/Reporting/Guidance/tabid/3670/ctl/Download/mid/17259/Default.aspx?id=2&ObjID=26602

[7] Stockholm Convention guidance documents, http://www.pops.int/Countries/Reporting/Guidance/tabid/3670/Default.aspx

2. Institutional Arrangements for POPs Data Collection

The successful development, review, or updating of an NIP requires that an effective project planning and management structure be put in place. Success is likely to depend both on an effective implementing body responsible for developing, reviewing, or updating the NIP, and on a means of engaging with a broader group of stakeholders.

If a Party is preparing its first NIP, in some cases, national coordination mechanisms for chemicals management may already exist and could be adapted/used for NIP development. For NIP reviewing and updating, making use of mechanisms and structures already established for developing the initial NIP should facilitate and accelerate this phase of the process (UNEP 2017a).

A national lead agency would be designated to take responsibility for setting up the structure and mechanisms to develop, review and update the NIP. The national lead agency would set up a national multi-stakeholder coordinating committee and an executing body, which would draw on experts and task teams to complete the work (UNEP 2017a).

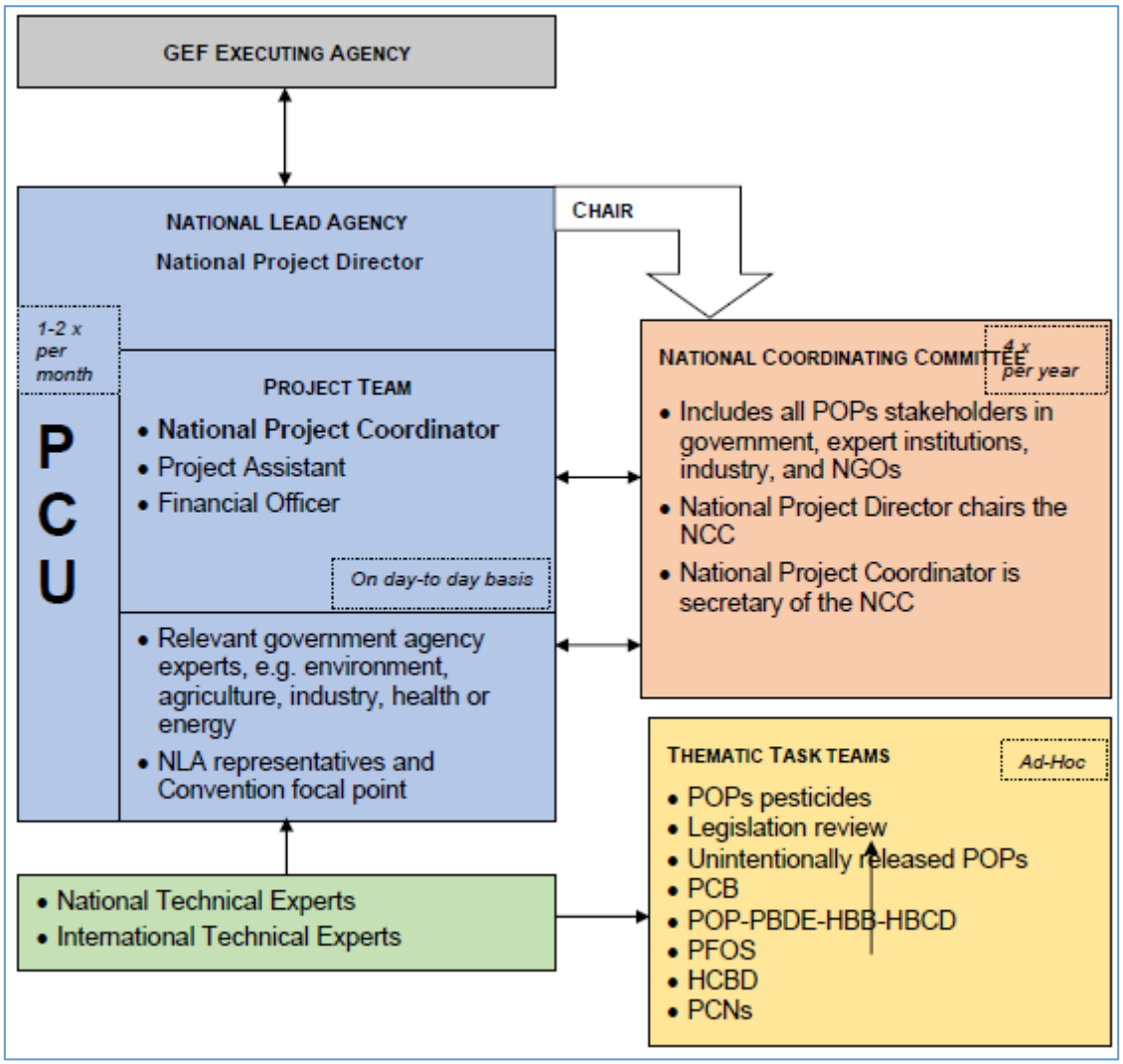
This structure and mechanisms established should include institutionalizing regular review and updating of the NIP, and stocktaking of progress on NIP implementation, irrespective of an external trigger. Enhanced coordination at the national level to resolve issues and obstacles to progress should also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

At the beginning of 2023, a survey was addressed to the Parties by the consulting team to identify key aspects of national processes for implementing and reviewing the NIP and the elaboration of national reports. Although a low number of responses were received, several countries declared that they do not have a mechanism in place for NIP review and updating. Several reasons for the barriers encountered in the implementation of the NIP and the national reports were exposed, especially the need for economic and technical resources to be able to comply with the reporting requirements of the Stockholm Convention.

Several Parties referred to the support received from the United Nations Environment Programme (UNEP) for the implementation of projects. A UNEP-related guidance document on developing a NIP for the Stockholm Convention[8] suggests the following structure for implementing a Global Environment Facility (GEF) national project to regular review and updating of the NIP: the national government will appoint a **national lead agency** (NLA) and a **national project director** (NPD), who should be a high-level official of the NLA (e.g. minister, secretary, or director-general). The NPD will be the certifying officer for the purpose of reporting on the progress of the NIP project to the GEF executing agency, where applicable. The NLA will be the legal entity responsible for executing the project. The NLA will establish a **national coordination committee** (NCC) and a **project coordination unit** (PCU) and will appoint a **national project coordinator** (NPC), whose selection should be discussed with the GEF executing agency, where applicable, and be endorsed by the PCU or the NCC, as appropriate. The NLA should provide the necessary scientific, technical and administrative support to the work of the PCU, working in close cooperation with relevant government agencies, the scientific community, and the public and private sectors. It should ensure that all documentation deriving from the project is consistent with the objectives (UNEP 2017a).

[8] Guidance on developing and updating National Implementation Plans (NIPs), https://www.pops.int/Implementation/NationalImplementationPlans/Guidance/tabid/7730/Default.aspx

Figure 3. Possible project management structure



2.1 Arrangements for POPs data collection in the context of NIP development

The NPC will be responsible for setting up a project team and organizing the work of the PCU. The core of the project team will consist of the NPC and a project assistant, one to three national technical experts, and a financial officer.

One or more international technical experts will assist the national project team. The technical experts will be responsible for the validity of technical reports and documents and for all technical work done for the project. The project team will be responsible for setting up task teams to fulfil specific project activities. The members of the project team and the task teams will be subject to approval by the PCU or the NCC. It is expected that country-based activities will be executed in a decentralized manner, with various governmental and/or non-governmental agencies being responsible for executing activities in their areas of expertise (e.g. the Ministry of Agriculture might be responsible for the pesticides inventory) (UNEP 2017a).

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

- Development of a work plan and budget (including expected outcomes, resources required and monitoring procedures) for the duration of their tasks.

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

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

It is expected that the main effort for data collection, generation and assembly will be the responsibility of the task teams. Periodic briefings and meetings of the PCU could be used to ensure that all members are aware of the progress and to review the aims and findings of the tasks as they progress. The NCC should be kept involved with the developments in line with the mechanism agreed previously (UNEP 2017a).

2.2 Arrangements for POPs data collection in the context of national reporting

Reporting under Article 15 is supposed to constitute a major source of information to assess whether Parties are implementing the Convention. This serves the dual purposes of compliance assessment under Article 17 and effectiveness evaluation under Article 16 of the Convention. The timeliness, completeness and quality of the national reports submitted by Parties are also essential to support the evaluation and compliance process of the Stockholm Convention.

Parties are encouraged to use the Stockholm Convention ERS to submit their reports as it offers a simpler and more user-friendly system and facilitates the collation and analysis of data by the Secretariat for the provision of the report on the national reports to the COP.

Each new national report is prefilled with the information from the previous reporting cycle. There is no need to re-enter data that has not changed, but it is needed to enter new data and if previous data have been revised (for example an inventory has been updated and data from previous periods modified with more accurate values). It is also needed to replace the existing data with the revised information.

The official contact point (OCP) to the Stockholm Convention for each Party is the responsible authority for submitting reports to the Secretariat as per Article 15. Users can access the ERS through the website of the Stockholm Convention.[9]

2.3 Interconnections between the two types of arrangements and other chemicals data collection processes

The interlinkages between the NIP and the national report are developed in detail in Section 3.

In addition, the table in Annex I shows the common activity data under the frameworks for POPs, mercury and greenhouse gas (GHG) emissions inventories. There is a high degree of overlap in terms of the sources and categories of emissions. In addition, the required activity data is often very similar. What is not shown in the table is the underlying data and information that is either required in inventory compilation or is used for further analysis and reporting (Secretariats, 2021). This relates

[9] Stockholm Convention Electronic Reporting System (SC-ERS), http://chm.pops.int/Countries/Reporting/ElectronicReportingSystem/tabid/3669/Default.aspx

to, for example, the location, capacity and technology of industrial facilities and power plants. Activity data for inventory compilation is often available disaggregated by facility or location and is then aggregated for use in the inventory calculations. Estimating mercury emissions also requires process-specific information as mercury can be released at various processing stages; for example, coal washing and ash collected via air pollution control technologies.

Another instrument to consider is the Pollutant Release and Transfer Register (PRTR). The idea of establishing a PRTR first emerged in the United States in 1986 in response to the tragic chemical release accident in Bhopal (India). Other countries, including Canada and Australia, soon followed in developing their own national PRTR systems. International interest in developing PRTRs further expanded with the 1992 United Nations Conference on the Environment and Development and the adoption of Agenda 21.

PRTRs have been established throughout the world to track releases and transfers of pollutants. Initially, a primary goal of PRTRs was to disseminate the information collected to inform the public of the pollutants released in their communities and empower those communities to participate in decision-making that could impact their environment. While strengthening participation by the public in environmentally related decision-making remains a cornerstone of PRTR design, stakeholders have recognized a number of additional benefits of PRTRs, including (UNITAR 2018):

- Providing data to support the identification and assessment of possible risks to human health and/or the environment by identifying sources and amounts of pollutant releases and transfers to each environmental medium.
- Encouraging the prevention of pollution at source (e.g. by encouraging the implementation of cleaner technologies or chemical substitutes).
- Evaluating the progress of environmental policies and assessing to what extent regional or national environmental goals are or can be achieved.
- Identifying, planning for and monitoring progress towards sustainability goals.
- Promoting corporate accountability and compliance with environmental obligations.

The Article 10 of the Stockholm Convention explicitly acknowledges the value of PRTRs for the collection and dissemination of information on estimates of the annual quantities of the POPs that are released or disposed of. Article 11 encourages parties to undertake appropriate monitoring pertaining to POPs. Countries are using their PRTRs as a valuable tool to assist in monitoring and reporting POPs to facilitate compliance with the Stockholm Convention requirements.

In addition, the Strategic Approach to International Chemicals Management (SAICM) was adopted in 2006 as a multi-sectoral and multi-stakeholder policy framework, by the First International Conference on Chemicals Management (ICCM1). Since its original objective was set for 2020, SAICM has initiated an inter-sessional process to prepare recommendations regarding SAICM and sound management of chemicals and waste beyond 2020.

At its first session, held in Dubai, United Arab Emirates, the International Conference on Chemicals Management adopted the Dubai Declaration on International Chemicals Management and the Overarching Policy Strategy. The conference also recommended the use and further development of the Global Plan of Action as a working tool and guidance document. Together these three documents constitute SAICM.

The first session of the conference and the process to develop SAICM were co-convened by the United Nations Environment Programme (UNEP), Inter-Organization Programme for the Sound Management of Chemicals (IOMC) and Intergovernmental Forum on Chemical Safety (IFCS).

SAICM has developed a Knowledge Management Platform[10] to support knowledge and information sharing among SAICM stakeholders. The platform hosts more than 600 resources, publications, databases and e-learning opportunities on chemicals and waste for dissemination among governments, industry representatives, academia and civil society.

[10] SAICM Knowledge Platform, https://saicmknowledge.org

3. POPs Data Collection Requirements/Needs

The NIPs and national reports submitted to the Stockholm Convention Secretariat under Articles 7 and 15, respectively, are the key data sources used to evaluate the effectiveness of the implementation of the Stockholm Convention. 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. A low reporting rate by Parties has a direct impact on the analysis required under the Effectiveness Evaluation process.

According to the analysis done within the framework of a GEF medium-size project, the 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.[11]

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 limited level of detail and the lack of information and/or data within the NIP were identified for the reporting obligations.[12]

3.1 POPs data collection requirements/needs for NIP development, review and update

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 2023).

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 an NIP to more focused assistance such as on how to build inventories for certain POPs, or to use the best available techniques or best environmental practices (BAT/BEP) during the implementation phase of the NIP (Stockholm Convention website).

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.

According to the analysis done under a GEF medium-size project,[11] the qualitative information requirements of NIP are as follows:

Table 2. Qualitative information generated during NIP development and/or update

Part	Chapter/sub-chapter	Information generated
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	1. Introduction	✓ 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

[11] GEF medium-size project: Integrated SC Toolkit to improve the transmission of information under Articles 7 and 15; Project component: Development and demonstration of an Articles 7 and 15 electronic toolkit integrated - Output 1.1. Gap analysis 1, https://wedocs.unep.org/bitstream/handle/20.500.11822/41658/GEF_9884_Gap_Analysis.pdf?sequence=3&isAllowed=y

[12] Idem, as described within sections 8.1 to 8.3.

Part	Chapter/sub-chapter	Information generated
meeting the objectives of 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) 2.3.7 Assessment of PFOS, its salts and PFOSF (Annex B, Part III)	✓ 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 ✓ Legal, institutional and regulatory systems for the management of PCNs and materials containing PCNs
	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
	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
	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

Part	Chapter/sub-chapter	Information generated
		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
	2.4 Implementation status	✓ Status of the previous NIP(s) implementation at the national level
	2.3.8 Assessment of releases of unintentionally produced chemicals (Annex C)	✓ Information on the development of source inventories and release estimates status and difficulties encountered
	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
	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
	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
	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
	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 stockpiles in a safe, efficient and environmentally sound manner
	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
	2.3.9 Information on the state of knowledge on stockpiles, contaminated sites and wastes, identification, likely numbers,	✓ Measures to manage wastes, including products and articles upon becoming wastes

Part	Chapter/sub-chapter	Information generated
	relevant regulations, guidance, remediation measures and data on releases from sites	
	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
	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
	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
	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
	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
	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 the environment to the various groups
	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 health and environmental quality, and social implications for workers and local communities	✓ Existing 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

Part	Chapter/sub-chapter	Information generated
Part C: Information on progress in eliminating polychlorinated biphenyls (PCB) in accordance with subparagraph (g) of Part II of Annex A to the Convention	2.3.2 Assessment of PCBs (Annex A, Part II)	✓ Legal, institutional, regulatory and enforcement systems for PCBs management
	2.3.2 Assessment of PCBs (Annex A, Part II)	✓ Legal, institutional, regulatory and enforcement systems for PCBs management
	2.3.2 Assessment of PCBs (Annex A, Part II)	✓ Legal, institutional, regulatory and enforcement systems for PCBs management
	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
	2.3.2 Assessment of PCBs (Annex A, Part II)	✓ Legal, institutional, regulatory, and enforcement systems for PCBs management
	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/contaminated by PCBs
	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
	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
	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
	2.3.2 Assessment of PCBs (Annex A, Part II)	✓ Legal, institutional, regulatory and enforcement systems for PCBs management
	2.3.2 Assessment of PCBs (Annex A, Part II)	✓ legal, institutional, regulatory and enforcement systems for PCBs management
	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 eliminating perfluorooctane sulfonic acid, its	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

Part	Chapter/sub-chapter	Information generated
salts and perfluorooctane sulfonyl fluoride in accordance with paragraph 3 in Part III of Annex B to the Convention		
	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
	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
	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
	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 chemicals, including for contaminated sites
	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

According to the same analysis (Ibid), the quantitative data requirements of the NIP implementation or update are as follows:

Table 3. Quantitative data by POPs group generated 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 stockpiles,	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

NIP chapter/sub-chapter	POPs group	Life-cycle step	Quantitative data
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) 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	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
		Use	✓ Quantity of POP-PBDEs used to manufacture articles/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 articles/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)

NIP chapter/sub-chapter	POPs group	Life-cycle step	Quantitative data
			✓ Quantity of articles/products produced from recycled articles/products containing POP-PBDEs (tonnes)
		Waste stockpiles	✓ Quantity of POP-PBDEs in article/products waste stockpiles (especially wastes of electric and electronics 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) 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	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 the construction sector and flame retarded textile applications (tonnes)
		Use	✓ Quantity of HBCD used to manufacture articles/products (historical/current), especially EPS and XPS in the construction sector and flame retarded textile applications (tonnes) ✓ Quantity of HBCD in articles/products in use, especially EPS and XPS in the 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	HCBD	Production as by-product from chlorinated hydrocarbons	✓ Quantity of HCBD by-product (tonnes) ✓ Related HCBD content (%)

NIP chapter/sub-chapter	POPs group	Life-cycle step	Quantitative data
knowledge on stockpiles, contaminated sites and wastes, identification, likely numbers, relevant regulations, guidance, remediation measures and data on releases from sites		production (historical/current)	
		Import/export (historical/current)	✓ Quantity of HCBD imported/exported as by-product, especially for use in the agricultural sector, industrial manufacture, purification of gas streams and electrical equipment (tonnes) ✓ Quantity of imported/exported products and articles containing HCBD (tonnes)
		Use (historical/current)	✓ Quantity of HCBD used as by-product, especially for use in the 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 articlse/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 PCN content, including POP-PBDEs and PCBs (ppm)
		Contaminated sites	✓ Number of potentially contaminated/contaminated sites
2.3.7 Assessment of PFOS, its salts and 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	PFOS, its salts and PFOS-F	Production (historical/current)	✓ Quantity of PFOS, its salts and PFOS-F produced as allowed by the 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 articles/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

NIP chapter/sub-chapter	POPs group	Life-cycle step	Quantitative data
measures and data on releases from sites		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) ✓ Ssource 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

3.2 POPs data collection requirements/needs for national reporting

As concluded in the analysis (Ibid) done under a GEF medium-size project, the qualitative information requirements for national reporting are as follows:

Table 4. Article 15 reporting qualitative information requirements

Part	Section	Information requested
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	✓ Status of development, update and transmission of NIP ✓ Financial assistance received, as well as 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 of the criteria in paragraph 1 of Annex D when conducting assessments of pesticides or industrial chemicals currently in use ✓ Notification of the Secretariat to register for specific exemptions listed in Annex A or Annex B or for acceptable purposes listed in Annex B

Part	Section	Information requested
	Section IV. Article 5: Measures to reduce or eliminate releases from unintentional production (PCDD/PCDF)	✓ Developing, reviewing and updating 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 the 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 of 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)

Part	Section	Information requested
	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,		✓ 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)

Part	Section	Information requested
its salts and perfluorooctane sulfonyl fluoride in accordance with paragraph 3 in Part III of Annex B to the Convention		✓ 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)

The quantitative data requirements for national reporting are as follows:

Table 5. Quantitative data requirements for Article 15 national reporting

Part section quantitative data	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 from unintentional production (HCB)	✓ Source inventories and release estimates of 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

Part section quantitative data	Section	Quantitative data
		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$) for financial support and types of incentives) ✓ Providing financial resources to enable developing country Parties and Parties with economies in transition to fulfil their obligations under the Convention (information on status, year, sources or channels through which the resources have been provided, total amount per year (US$), 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)

Part section quantitative data	Section	Quantitative data
		[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))

3.3 Overlapping POPs data collection requirements/needs

The analysis (Ibid) of the GEF medium-sized project shows that correlating the format of the NIP development and/or update with the Article 15 reporting format is 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.

GEF recommends an integrative approach for reporting obligations that relate in principle to the fact that once data and information are generated at the national level, in this case during the NIP development and/or update, it should serve multiple purposes, particularly for reporting under the Convention.

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

According to the GEF medium-sized project, the summary tables combining the qualitative and quantitative requirements of NIP and national reports are shown in Annex II.

4. POPs Data Collection, Compilation and Validation Processes

4.1 Steps for NIP development, review and update

A POPs inventory is a compilation of information on past and present production and uses of a chemical listed in the Stockholm Convention on Persistent Organic Pollutants (POPs) in the country. As many POPs are used in the manufacture of products/articles, which may have a long service life, a comprehensive inventory should also estimate the amount of POPs in the products/articles in the country (e.g. in buildings or used by consumers) along the whole life-cycle, thus contributing to the provisions of Article 6 of the Convention on management of waste. An inventory could also address sites that may have been contaminated by production, use, or accidental releases of POPs.

The inventory report can be also used for other purposes such as feeding into Article 15 reporting from the COP, development of other projects, and developing effective strategies and action plans for managing POPs to meet the obligations under the Convention).

The main objective of developing an inventory is to acquire information for the review of the NIP and the various information requirements of the Convention (e.g. Article 15 reporting) (UNEP 2019).

4.2 Proposed inventory process

The inventory approach is tiered to allow Parties to tailor their inventories according to their needs and capacities, adjusting the scope in the course of work based on the findings. The inventory process is iterative. The inventory can be improved over time when resources and technical capacity become available (UNEP 2019).

A multi-stakeholder inventory team consisting of authorities, experts, relevant industries and NGOs should be established to coordinate the work and develop the initial scope and work plan for the inventory. The outcome of the work should be a final report that includes the process, sources, assumptions, estimations and calculations in a transparent way to facilitate future improvements when new information becomes available (UNEP 2019).

The first phase **(Tier I)** in the inventory is to make an initial assessment of the production and use of the POP in the country based on available information. The outcome could be a literature study complemented with information on the inventory team stakeholders. A full picture of the particular POP may not be achieved based only on available information, but the work plan and scope of the inventory may be further refined by e.g. being able to exclude some applications in the country (UNEP 2019).

In the second phase **(Tier II)**, further information (and likely the main body of the information) is collected through interviews and questionnaires to stakeholders, i.e. producers, users, users of the products/articles consisting of, containing or contaminated with the POP, waste managers, etc. Based on information from the producers and users of the POP, the team should have a reasonable understanding of the flows and uses of the chemical in the country as well as the magnitude and concerned sectors of stockpiles and materials containing the chemical (UNEP 2019).

In the third phase **(Tier III)**, in-depth information can be acquired for sectors of special interest and uses of importance to fill in gaps in the information through chemical analyses and site visits. Analyses are usually expensive and require a lot of technical expertise. Moreover, analytical methods may not be readily available for some POPs (UNEP 2019).

All these steps will be presented in detail in Section 5.2.3.

The structure and organization of the inventory are always dependent on the chemical, local circumstances and priorities of the country and the inventory team. Therefore, the guidance is not intended to be prescriptive, but to give ideas for tailoring the approach (UNEP 2019).

Treatment of confidential information

The use of chemicals in production is often considered confidential business information (CBI) and is not available in open literature. Concerns over the treatment of commercially valuable information may hamper the success of the inventory team in receiving information from the private sector. Stakeholders may wish to keep information that is required to estimate chemical use in the country, such as annual sales or production data, confidential from their competitors. In such cases, it is important to be able to provide guarantees to the companies that the information they provide will not be passed on to third parties. In addition, it should not be possible to deduce quantities for individual stakeholders from the data provided in the reports. This is especially challenging in situations where only a few companies are operating in the sector (UNEP 2019). Data in the inventory report do not need to be reported as stakeholder-specific information. It can be aggregated or processed to accommodate trade-related concerns from the industry. It is important to consider the level of detail the inventory needs and alternatively consider asking the stakeholders to report their yearly production, consumption, or sales of the chemical and its related substances themselves in an aggregated form that they are comfortable with (UNEP 2019).The industry also has an inherent interest in providing the authorities with factual information on the use and production of a POP, as this would enable the Party to register for acceptable purposes and specific exemptions as necessary, and also reflect their needs in their national regulations (UNEP 2019).

For an approach to the treatment of confidential information under the Stockholm Convention, you can refer to the Code of Practice in the POPs Review Committee (UNEP 2007).

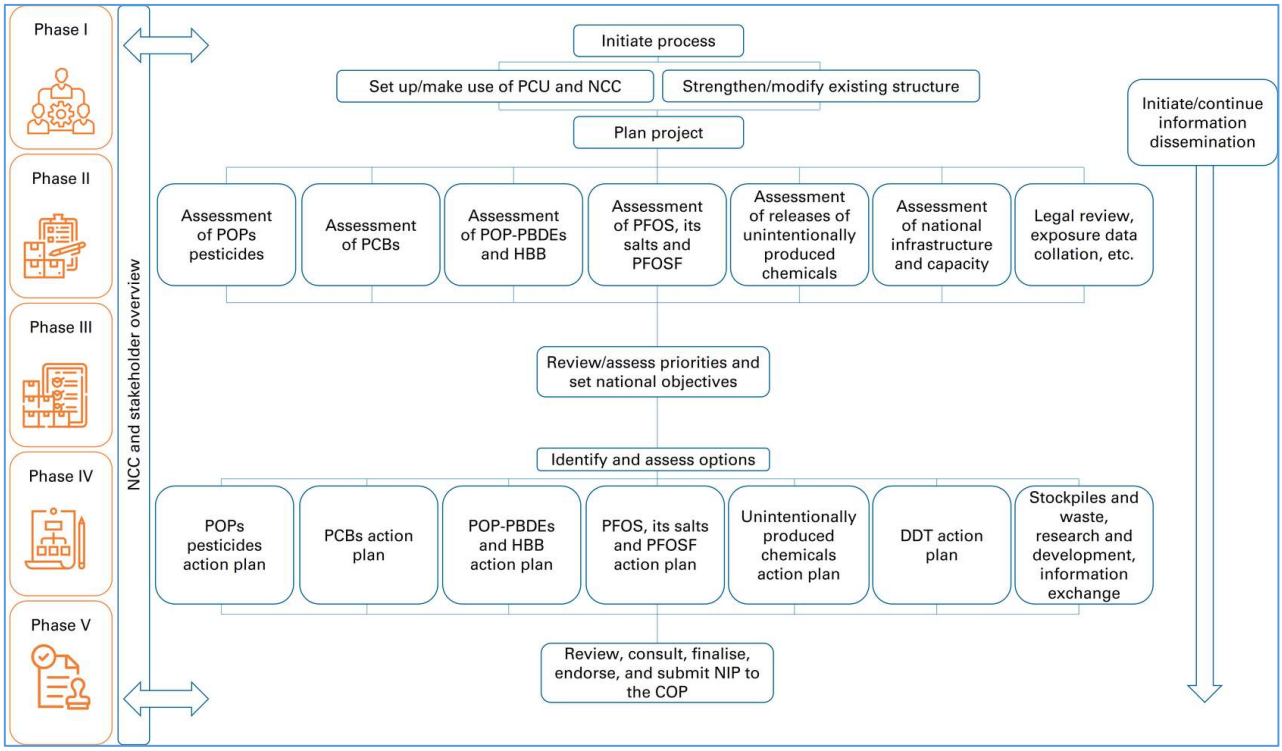
4.3 Steps for inventory development

The process of developing, reviewing and updating an NIP can be subdivided into five phases:[13]

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

[13] Revised January 2017 version of the draft Guidance for Developing National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants, http://chm.pops.int/Portals/0/download.aspx?d=UNEP-POPS-NIP-GUID-Developing-201701.En.pdf

Figure 4. Phases of updating a NIP[14]



4.3.1 Step 1: Initiating the inventory development process

Consider establishing **a national inventory team** to oversee the inventory work, define the scope and develop the final report. The inventory team may consist of government agencies, academia, advisory bodies, industries, waste management, commerce, NGOs and others that have knowledge regarding the production and use of the POP or products/articles consisting of, containing, or contaminated with the POP.

The composition of the inventory team depends largely on whether the POP is a pesticide an industrial chemical, or both. Special attention should be paid to ensure the participation of industries that operate in areas for which acceptable purposes or specific exemptions have been identified (UNEP 2019).

4.3.1.1 Establishing a national inventory team

Inventories on POPs pesticides

The inventory team could include representatives of pesticide registration authorities, municipal authorities, agricultural advisory bodies, pesticide industry and trade associations, customs service, relevant universities or research institutes, organized labour and trade unions, farmers and consumer associations, among other NGOs (UNEP 2019).

Inventories on industrial POPs

The inventory team could include the authorities in the field of chemicals management, chemicals registries, the customs service, representatives from larger stakeholders involved in the production of the POP (if taking place), representatives from the industrial sectors using the POP in manufacture, organized labour and trade unions, universities and research institutes, the relevant NGOs (UNEP 2019).

[14] UNCCe-Learn Course on National Implementation Plans and the Stockholm Convention on Persistent Organic Pollutants, https://unccelearn.org/course/view.php?id=133&page=course

The national focal point for the Stockholm Convention could serve as the leader of the team and convene the meetings. National and/or international consultants with relevant expertise could be hired to do the work and report to the team. The team could also subdivide into smaller sector-specific groups, once the information becomes available, to focus on smaller parts of the inventory (UNEP 2019). The national focal point should brief and educate the team on the Stockholm Convention's mandates, obligations and the new POPs.

The knowledge of the inventory team can help identify the production and supply of the POP and the relevant areas of industrial and professional use, making the inventory as practical and effective as possible. The industries involved in the production, import, and use of the POP should be involved in the discussion on the scope of the inventory, as they may be able to estimate historical and current amounts in different applications (UNEP 2019).

4.3.1.2 Identifying relevant stakeholders

Based on the tentative information on production and use of the POP in the country, the team should identify relevant stakeholders, who will be contacted for the information in the process. The detailed inventory guidance documents contain lists of suggested stakeholders, which are dependent on the chemical in question and its uses (UNEP 2019).

4.3.1.3 Defining the scope of the inventory

Defining the scope of the inventory means identifying the relevant national sectors to be investigated in the process, planning the use of resources, and the extent of the activities needed. The inventory process is tiered, and the scope will likely need to be adjusted as information on the situation in the country becomes available (UNEP 2019).

The following considerations are important for defining the scope of the inventory:

(a) Obligations of the Stockholm Convention, including the possible acceptable purposes and specific exemptions
(b) Objectives of an inventory
(c) Available resources and capacity (financial and human resources, analytical capacity)
(d) Lifecycle of the POP
(e) National priorities (e.g. developing NIPs)

4.3.1.4 Developing a work plan

The national inventory team should develop **a work plan** for the inventory including (UNEP 2019):

(a) Inventory strategy
(b) Data collection methodologies to be used
(c) Activities needed
(d) Resource allocation including responsibility and budget
(e) Timeline and milestones

4.3.1.5 Contacting the stakeholders

Stakeholders will likely need to be contacted several times in the course of the inventory. It may be useful to contact them at the beginning of the inventory to inform them about its background and scope. This can give them a better understanding of the aim of the inventory and an opportunity to communicate their views and questions, and to identify more relevant stakeholders. Early stakeholder feedback can also help focus the inventory, thus making it as practical, effective and accurate as possible (UNEP 2019).

In the initial contact, it may also be helpful to explain the purpose of the Stockholm Convention, present the NIP and explain the globally agreed and national restrictions for the chemical. Examples of information that could be shared in the initial contact can be found in the annexes of detailed inventory guidance documents.[15]

[15] Guidance on developing and updating National Implementation Plans (NIPs), http://chm.pops.int/Implementation/NationalImplementationPlans/Guidance/tabid/7730/Default.aspx#

4.3.2 Step 2: Choosing data collection methodologies

Several different approaches have been used for gathering information for POPs inventories. The methodologies can be divided into three groups (UNEP 2019):

- **Indicative method**: Desk study of existing information, workshops and interviews provide initial information for further planning of the inventory depending on the amount of resources (i.e. human and financial situation). This method is quick and does not require significant human and financial resources. This method is normally used in the initial assessment (Tier I).
- **Qualitative method**: Use interviews, questionnaires (see detailed guidance documents for examples) and literature surveys to obtain more specific data. Estimations are based on information on quantities of POPs used and production volumes in the manufacture of products/articles. Workshops may also help obtain data from the industry. This method is normally used in Tier I and II.
- **Quantitative method**: Collecting specific in-depth information from interviews, site visits and chemical analyses. This is an advanced stage of the inventory that includes detailed interviews with industry and associations where also questionnaires (see detailed guidance documents) can support the survey and possibly site inspection. The quantitative methods include the use of chemical analyses to fill in gaps in the information needed for inventory. This could, for example, include analysing POP content of products/articles imported or on the market. Chemical analyses are expensive, require specific expertise and are normally not used for the in-depth inventory for specific sectors only. This method is normally used in Tier III.

4.3.3 Step 3: Collecting and compiling data

The main data that should be collected in the inventory, taking into account the whole life cycle of the POP (UNEP 2019):

(a) Production of the POP or chemical preparations containing it. This could mean, for example, chlordecone and the formulations containing it (pesticides with chlordecone as an active ingredient), or PFOS and formulations containing PFOS (such as fire-fighting foams and hydraulic fluids).
(b) Import of the chemical or formulations containing the chemical. Most countries do not produce POPs themselves but import them as chemicals or chemical preparations.
(c) Import of products/articles consisting of, containing or contaminated with the POP. These could include, e.g., pallets treated with the POP pesticide, impregnated utility poles, textiles and upholstery, insulation materials, plastics, leather and apparel, synthetic carpets, and electronic and electrical articles and devices, depending on the chemical.
(d) Industries and other professional users in the country using the POP as a chemical and their stockpiles of the POP.
(e) Industries in the country manufacturing products and articles containing the POP and their stockpiles of the POP.
(f) Products/articles consisting of, containing, or contaminated with the POP on the consumer market and in service in the country. This could include, e.g., insulation materials, electric and electronic devices, cars, etc.
(g) Existing obsolete pesticide storage facilities.
(h) Waste streams containing the POP and information on their management.
(i) Contaminated sites as information becomes available.

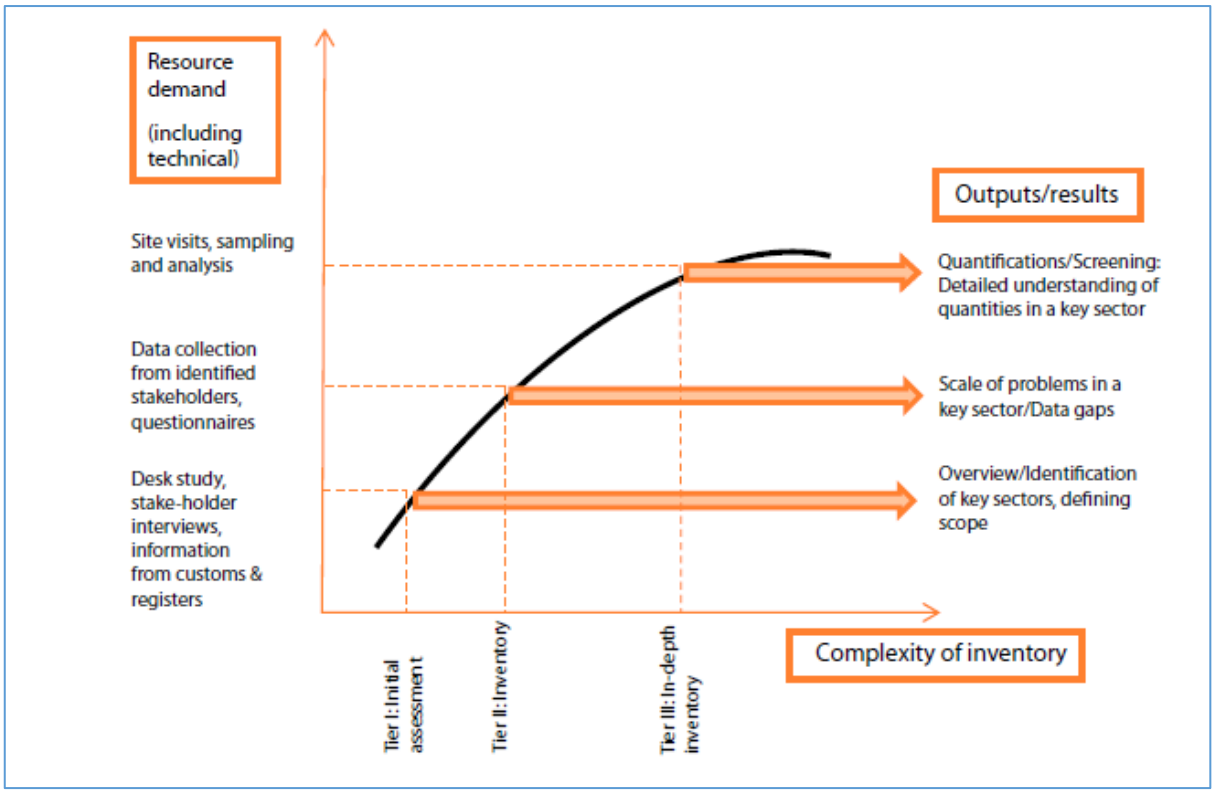
The following quantitative data is sought (UNEP 2019):

(a) Quantity of the chemical used in industrial processes and manufacture of products/articles
(b) Quantities of stockpiles
(c) Quantity of the chemical in products/articles in service
(d) Quantity of the chemical manufactured in the country and/or imported

(e) Quantities of waste consisting of, containing, or contaminated with the POP, as appropriate (for more information, see the Basel Convention technical guidelines for Environmentally Sound Management (ESM) of Persistent Organic Pollutants (POPs) wastes)

Collecting inventory-related data is a multi-step process that can be based on a tiered approach. This approach provides flexibility to Parties with varying priorities and capacities and allows for scaling of the work according to the findings (UNEP 2019).

Figure 5. The tiered inventory approach (UNEP 2020)



4.3.3.1 Tier I: Initial assessment

The initial assessment relies on collecting “low-hanging fruit”, i.e. existing information, desk studies, literature searches, interviews, etc. The priority is to get an overview of the present and historical use of the chemical and its life cycle in the country for refining the scope and planning the inventory process (UNEP 2019):

(a) Production
(b) Uses
(c) Waste management and potential recycling of materials containing the chemical
(d) Waste storage (mainly in the case of obsolete pesticides)
(e) Understanding the life cycle of POP and the potential for emissions

Pesticide inventories

In the first step, the inventory team should clarify whether the pesticide is still produced and/or used, or would the inventory be only on waste. The team should screen the available information on pesticide production and use in literature and information from national institutions working on plant protection and pesticides, pesticide industry and industry associations, pesticide trade, and internet searches using Chemical Abstracts Service (CAS)numbers and trade names. The pesticide registry, potential food residue studies and all possible previous inventories should be reviewed. Although the existing inventories are unlikely to be sufficiently detailed for identifying the POPs, they may give information on the scale and location of waste sites (UNEP 2019).

If the pesticide is still in use, there might be production or import and even export, on which the national customs may have information. Further information should be sought by contacting the manufacturers, traders and marketers as appropriate (UNEP 2019).

Industrial chemical inventories

In the case of an industrial chemical, the inventory team can screen the available literature and information from national statistic institutions, published literature in scientific journals, technical reports or notes from industry and industry associations, commissioned research reports and internet searches. An initial assessment should include national standards and regulations related to the chemicals in various applications. This could include, for example, assessment of flammability standards for different applications in textiles such as transport seating, upholstery, carpets and curtains (UNEP 2019).

In the second step, the inventory team should contact the major stakeholders (larger companies, industry associations) to obtain initial information on whether the POP was or is used in the country. Special attention should be paid to those sectors where use may continue according to the Stockholm Convention provisions. A country's environment ministry and ministry in charge of industry, as well as the Stockholm Convention Regional Centres, may have relevant information (UNEP 2019).

Information on the import of the chemical might be available from customs service, or industries using the chemical or their related industry associations. Information on both current and historic import and export should be sought. When contacting the stakeholders for information, information on the related uses should also be asked (UNEP 2019).

Making rough estimations of the quantities used in any of the applications, for example, the total volume of materials in a sector (e.g. vehicles), or a specific application (e.g. furniture upholstery), could be helpful to prioritize actions. Further information could be collected in Tier II and Tier III for verification (UNEP 2019).

The HS codes used by the customs are normally not specific enough to address a specific chemical or chemical in products/articles. HS codes are likely not applicable for assessing the import/export of certain POPs or products/articles containing them. CAS numbers and trade names should be used. For more information, see the Guidance for the Control of the Import and Export of POPs under the Stockholm Convention (UNEP 2017b).

If information on the import, manufacture and export of products/articles containing POPs is available, the net consumption can be calculated using the template below (separately for different sectors if preferable) (UNEP 2019):

Net consumption of products in [country] = manufacture + import – export

*Net consumption of POP in [country] = [manufacture + import – export] of POP containing products or articles x POP content**

*In the absence of other values, please consult Risk Profile, Risk Management Evaluation adopted by the POPs Review Committee and the Basel Convention Technical Guidelines on ESM of waste for information on typical contents used in products/articles.

For further examples, please see POPs-specific sections of the module and detailed POP inventory guidance documents.

Statistics on the manufacture of articles may not be detailed. The production statistics may not necessarily follow the same product codes as import and export. It may only cover some of the existing companies in the country. It is also expected that some statistical data on the manufacturing activities is confidential and not available. Therefore, the calculations based on the statistics must be carefully interpreted (UNEP 2019).

Authentic product information received from major companies, and interviewed by the inventory team, in each relevant use sector is expected to be of a better quality and needs to support the quantitative information from the statistics. Based on these data, the team should assess the

relevance of the defined scope and whether the right stakeholders have been identified, before proceeding to the next tier (UNEP 2019).

4.3.3.2 Tier II: Main inventory

Many questions will likely remain open after the initial assessment and the main body of information for the inventory will be achieved in the phase. The next tier in the inventory focuses on specific sectors of interest identified based on the initial assessment. In Tier II, new and more detailed information is collected from the stakeholders through interviews, surveys and site visits (UNEP 2019).

Possible site visits and further studies could focus on the sites of production, use and disposal of the POP in the country (UNEP 2019):

(a) Current and former production sites
(b) Current and former disposal sites (such as pesticide storage facilities)
(c) Users of the POP and products containing the POP
(d) Waste collection centres and recyclers
(e) End-of-life vehicle treatment facilities, if relevant
(f) Storage and disposal locations of materials containing the POP

Information on the amount of production waste and the historic management and deposition of waste from these productions could be addressed in the inventory (including associated landfills) (UNEP 2019).

Pesticide inventories

Pesticide inventories consist of identifying the current production and use, stockpiles and waste like with industrial chemicals. However, as many POPs pesticides were phased out a long time ago, pesticide inventory could consist of just an inventory of pesticide waste in the country. FAO has issued thorough guidance under the Programme on the Prevention and Disposal of Obsolete Pesticides. Tier II inventory could be based on available documents at sites of storage. FAO guidance covers all aspects of pesticide management (FAO, 2001; FAO, 2010). However, it should be noted that with regards to the environmentally sound management referred to in Article 6 of the Convention, the technical guidelines by the Basel Convention should be adhered to (UNEP 2017c and the related POP-specific technical guidelines).

If the pesticide is in use, information on the flows along the whole life cycle must be acquired. In case sales data is not available, these data could be collected in Tier II by using targeted questionnaires or interviews with producers, importers, agricultural advisory bodies, farmers' associations and NGOs (UNEP 2019).

Inventories of industrial chemicals

The inventory team could organize separate teams for different industrial sectors and hire consultants as appropriate. The detailed guidance documents contain examples of questionnaires that could be used for contacting and requesting information from the stakeholders in different sectors that have been identified as relevant nationally in the initial assessment (UNEP 2019).

All the data formats including questionnaire survey formats should be carefully streamlined to ensure the consistency of the data collection as much as possible. If data conversions and estimations are done by stakeholders (e.g. for the management of confidential data), the inventory team may need to provide training on calculations on the POP content and how to fill out the questionnaire. This will ensure high data quality and consistency (UNEP 2019).

4.3.3.3 Tier III: In-depth inventory

In areas where Tier II search for information falls short of the objectives set for the inventory by the inventory team, focused information could be acquired through more resource-demanding techniques, if resources are available. The in-depth inventory could include using analytical methods to gain information, for example, on uses and concentrations of POPs in products/articles on the

market to estimate the total amounts of POPs, prioritize actions and estimate their costs (UNEP 2019).

The analytical methods may include measurements using the X-ray fluorescence (XRF) screening as well as laboratory analyses (see UNEP, 2017d). It may also involve detailed inspections of sites mentioned in Tier II. For pesticide inventories, in-depth inventory could entail sampling and analysing unidentified pesticides in storages of obsolete stocks (UNEP 2019).

4.3.3.4 Guidelines for the reporting of each category of POPs to be included in the national report

Various focused guidance documents have been developed to support Parties on preparing inventories for certain POPs by applying the best available techniques and best environmental practices (BAT/BEP) that can be accessed in the Guidance on developing and updating National Implementation Plans (NIPs):[16]

- General guidance on POPs inventory development (2021)
- Guidance on information collection for industrial persistent organic pollutants (2022)
- Guidance on preparing inventories of dicofol (2022)
- Guidance on preparing inventories of hexabromocyclododecane (HBCD) (2021)
- Guidance on preparing inventories of hexachlorobutadiene (HCBD) (2019)
- Guidance on preparing inventories of PBDE including decaBDE (2021)
- Guidance on preparing inventories of PCNs (2021)
- Guidance on preparing inventories of PCP (2021)
- Guidance on preparing inventories of perfluorooctane sulfonic acid (PFOS), its salts and perfluorooctane sulfonyl fluoride (PFOSF), and perfluorooctanoic acid (PFOA), its salts and PFOA-related compounds (2022)
- Guidance on preparing inventories of SCCPs (2021)
- Assortment of presentations on management (2021)
- Releases of unintentional POPs; POPs pesticides; Hexabromocyclododecane (HBCD); PCB, PCNs, and SCCPs; Listed polybrominated diphenyl ethers (POP-PBDEs); PFOS, its salts and PFOSF and of PFOA, its salts and PFOA-related compounds
- Guidance for the control of the import and export of POPs under the Stockholm Convention (2019)
- Guidance on the labelling of products and articles that contain POPs (2019)
- Guidance on sampling, screening and analysis of POPs in products and recycling (2021)
- Guidance for strengthening regulatory framework/voluntary agreements for regular monitoring of products/articles that may contain new POPs (2021)
- Introductory manual on the Stockholm Convention (2022)
- Guide for the implementation of the Stockholm Convention (2022)

4.3.4 Step 4: Managing and evaluating the data

The data need to be assessed for completeness and plausibility, possibly including a comparison with data from other countries in the region. Data gaps may (partly) be filled by extrapolation of available statistical data. If the quality of the data is considered unsatisfactory, additional data collection or screening (Tier III) should be undertaken (UNEP, 2019).

4.3.4.1 Data management

Data collection methodologies applied in the data gathering process as described in Step 2 may vary depending on the legal framework, political organization and economic support for environmental management. Nevertheless, the management of the collected data should be consistent and transparent. During the data processing, all the assumptions and conversion factors adopted as a

[16] Guidance on developing and updating National Implementation Plans (NIPs), http://chm.pops.int/Implementation/NationalImplementationPlans/Guidance/tabid/7730/Default.aspx

result of expert judgment, where needed, should be noted/recorded and referenced when the results are presented (UNEP 2019).

4.3.4.2 Evaluation of the inventory

Some challenges may still exist at the end of the inventory including a lack of detailed information on certain activities and applications. An evaluation of the process, strategy used and information collected can take place along with a decision on what further actions are needed to make the inventory more complete (UNEP 2019).

The evaluation includes identification of the following (UNEP 2019):

(a) Gaps and limitations
(b) Need for validation of the information compiled in the inventory
(c) Actions needed to meet the requirements of the Stockholm Convention

Important elements in this evaluation step are to identify any gaps and limitations, and the measures needed to make the inventory more complete. Other ways to involve the stakeholders and other data collection strategies (see Steps 2-4) could then be considered. A gap analysis in the evaluation of the initial assessment or preliminary inventory could result in the need to contact some of the stakeholders again to get more information or identify other stakeholders to be contacted to help fill the gaps (UNEP 2019).

For inventory sectors with limited information, information campaigns and stakeholder meetings or workshops may be necessary. In some cases, government regulations may be required to ensure that stakeholders report their holdings and cooperate with the national authorities and engage in the national inventory.

Gaps, limitations and necessary actions to complete the inventory will also be valuable information for the NIP, especially for developing countries in need of financial support for their inventory. Developing countries need to identify whether and what kind of technical and financial support will be necessary to complete the inventory. Even if the inventory is incomplete, the NIP is expected to provide information on gaps and the limitations of a country's resources and capabilities — information that is useful for identifying appropriate technical and financial needs (UNEP 2019).

It is also important to consider whether the current situation meets the requirements of the Convention, including the potential actions proposed in the NIP, especially concerning the elimination of the POP and compliance with acceptable purposes or specific exemptions. Information on BAT/BEP measures may also be useful (UNEP 2019).

The inventory might also require revision at a later stage when the action plan is updated. This can also be done using the strategies described in this guidance (UNEP 2019).

4.3.4.3 Quality assurance/quality control

The inventory data should be assessed for completeness and plausibility.

The implementation of a quality assurance/quality control (QA/QC) system and plausibility procedures is recommended as a good practice in the development of POP inventories to achieve timelines, transparency, consistency (coherence), comparability, completeness, improvement and accuracy.[17]

The QA/QC and plausibility activities should be an integral part of the POP inventory process. The outcomes of QA/QC and plausibility assessments may result in the reassessment of POP inventory uncertainty analysis and subsequent improvements of the inventories, the NIP, the reporting under Article 15 and finally also a better NIP implementation (UNEP, 2023).

In practice, inventory teams have limited resources and time. Thus, QA/QC requirements, improved accuracy and reduced uncertainty must be balanced against requirements for timeliness and cost-

[17] UNEP (2023a). Short Guidance on implementing Quality Assurance and Quality Control (QA/QC) for POPs Inventories Data Validation.

effectiveness. A good practice system for QA/QC seeks to achieve that balance and to enable continuous improvement of inventory estimates (IPCC 2006).

The following are the major elements of a general QA/QC system recommended to be implemented in a POP inventory (UNEP 2023):

Figure 6. General QA/QC system (Adapted from IPCC 2006)

These elements are recommended for gathering data on POPs considering the inventory guidance documents for individual POPs, the sectoral inventory guidance (UNEP 2023b), the report on production, use and trade of POPs newly listed in the Stockholm Convention 2009 to 2021 (UNEP 2023c), the guiding methodology for strengthening the collaboration with national statistical offices (UNEP 2023d) and the guidance on monitoring POPs in products and recycling (UNEP 2021a). A QA/QC procedure should be applied routinely to the inventory compilation.

For a more detailed explanation of each element of the quality assurance/quality control system, see the short guidance on implementing quality assurance and quality control (QA/QC) for POPs inventories data validation (UNEP 2023e).

4.3.5 Step 5: Preparing the inventory report

The final stage of the inventory is the preparation of the inventory report. This report includes results of inventories of all key sectors investigated by the country compiled in a single document. The essential elements of the report are (UNEP 2019):

(a) Objectives and scope
(b) Description of data methodologies used and how data were gathered, including all the assumptions and conversion factors adopted as a result of expert judgment
(c) Final results of the inventory for each sector considered a priority for the country (using a format to be provided in this guidance, as such or adapted from that format)
(d) Results of the gap analysis and limitations identified for completion of the inventory
(e) Further actions (e.g. stakeholder involvement, data collection strategies) to be taken to complete the inventory and recommendations

Other information (e.g., stakeholder list) could be included in the report depending on the national preferences (UNEP 2019).

4.4 POPs data collection, compilation and validation processes steps for national reporting

The Report on the second effectiveness evaluation of the Stockholm Convention on Persistent Organic Pollutants (document UNEP/POPS/COP.11/INF/36) [18] highlighted that only a small proportion of the Parties provided their reports as required under Article 15. While 29% of Parties submitted their fifth reports on time (31 August 2022), only about half of Parties have submitted their national reports in the third and fourth reporting cycles, with only 16% and 18% of Parties submitting their reports on time (data as of 31 August 2021). Many Parties continue to have difficulties in providing complete national reports and Parties also provide data that is erroneous or inconsistent, highlighting the need for improved quality control. The decrease in the number of reports submitted by Parties between the third and the fourth cycles can be explained, among other challenges, by the difficulties in national coordination required among different ministries and sectors, as well as in terms of data collection mechanisms.

The majority of the Parties that submitted national reports have successfully completed their NIPs.

The format of the national reports is regularly updated to reflect COP decisions on newly listed chemicals, and also the system is improved on a regular basis to enable ease of its use by Parties and others. For example, in 2021, the Secretariat launched the SC Dashboard (available on the convention website[19]), which contains numerous ways for stakeholders to visualize data submitted in national reports. Additionally, the Secretariat regularly improves the functionality available in the system.

The Secretariat has developed a strategy to assist Parties increase the rate of submission of national reports by Parties pursuant to Article 15 of the Stockholm Convention (see document UNEP/POPS/COP.8/INF/37).[20] This document proposes the following strategic approaches and tools for strengthening of national structure for national reporting:

- Encourage Parties that have not already done so to designate an official contact point (OCP) as this person is responsible for formally submitting the national reports to the Secretariat, and thus will receive a specific access code to the online reporting system.
- Encourage Parties to establish a secondary account for the online reporting system to allow different technical officers from various ministries to complete respective sections of the reporting form online under the coordination of the OCP.
- Assist the OCP in identifying the entities that are responsible for the collection and storage of required data and assist in establishing coordination mechanisms or procedures to facilitate exchange of information and collection of data.
- Encourage Parties to the Stockholm Convention in need, to submit proposals to the special programme to obtain financial support to strengthen their institutional capacity at the national level, including in the area of data collection for the reporting pursuant to Article 15.

There is a range of potential avenues to be explored for improving reporting rates and communication with Parties, for example, identifying focal points, and their alternates and communicating upcoming deadlines and available resources to assist with reporting. Compliance mechanisms under other multilateral environmental agreements have proven to be successful in addressing reporting requirements when technical and financial support were provided to Parties for the preparation of the report, and the availability of dedicated staff in countries was guaranteed, to prepare and submit the reports. The Special Programme under UNEP,[21] can act as an additional funding mechanism for supporting chemical management under the Conventions for institutional

[18] https://www.pops.int/Implementation/EffectivenessEvaluation/Outcomes/2023Outcomes/tabid/9559/Default.aspx
[19] http://www.pops.int/Countries/Reporting/ReportingDashboard/tabid/7477/Default.aspx
[20] https://www.pops.int/TheConvention/ConferenceoftheParties/Meetings/COP8/tabid/5309/Default.aspx
[21] https://www.unep.org/explore-topics/chemicals-waste/what-we-do/special-programme

strengthening, including improving national reporting. The role of the regional centres in assisting and training countries in this area could be strengthened and regional coordination improved.

5. POPs Data Management and Submission Systems

At the most basic level, the project coordination unit overseeing the NIP process may want to ensure that the infrastructure put in place and efforts undertaken for the NIP will also facilitate meeting other Stockholm Convention obligations. This might include ensuring that data is collected and stored through processes that are in line with reporting requirements under the Convention. Designing the elements of the NIP output document may also entail ensuring that the setting of priorities aligns with core Convention obligations.[22]

Another area for synergies mirrors the Secretariat-level synergies among the Basel, Rotterdam and Stockholm (BRS) conventions, and may also easily include synergies with other chemicals and waste regulations. Just as the BRS Secretariat has streamlined aspects of its work, including, for example, in convening Triple COPs, some countries have streamlined their governmental infrastructure for dealing with these issue areas.[23]

Electronic Reporting System (ERS)

At its second meeting, the Conference of Parties (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.

In response to the request from the COP, the Secretariat has updated and enhanced the SC-ERS to accommodate the updated format for the national report as adopted by the COP at its sixth meeting. In addition, the SC-ERS has been improved to make it more user-friendly and resourceful.

The updated SC-ERS is available and may be used by parties since 2014.[24]

In 2021 the SC-ERS was updated with the changes required in the questionnaire for the fifth reporting cycle, with a deadline of 31 August 2022.

Parties are encouraged to use the SC-ERS to submit their reports as it offers a simpler and more user-friendly system and facilitates the collation and analysis of data by the Secretariat for the provision of the report on the national reports to the COP.

Each new national report is prefilled with the information from the previous reporting cycle. There is no need to re-enter data that has not changed, but it's needed to enter new data and if previous data have been revised (for example an inventory has been updated and data from previous periods modified with more accurate values), and it is needed to replace the existing data with the revised information.

National report – the reporting format[25]

The reporting format or questionnaire used for the fourth reporting cycle, as per Article 15, is based on decisions adopted by the COP: SC-6/211, SC-7/27, SC-8/17 and BC.Ex 1/1.

Additionally, each time the COP lists a new POP in one of the Annexes to the convention, the questionnaire is adapted accordingly.

[22] UNCCe-Learn Course on National Implementation Plans and the Stockholm Convention on Persistent Organic Pollutants, https://unccelearn.org/course/view.php?id=133&page=course
[23] Idem.
[24] Click the link to access the SC-ERS, 5th reporting cycle questionnaire http://ers.basel.int/ERS-Extended/fs.aspx?surveyid=50706a963dc4b3c8e284849055fb2b9
[25] Manual for national reports under Article 15 of the Stockholm Convention, in http://chm.pops.int/Countries/Reporting/Guidance/tabid/3670/Default.aspx

This manual was developed at the time of the submission to the fourth reporting cycle (due on 31 August 2018). In case the reporting format changes in the future, this manual may need to be adjusted accordingly.

Parties submit their national reports using the Electronic Reporting System (ERS) of the Stockholm Convention through which the reporting format/questionnaire is made available online. Instructions on accessing and submitting information through the ERS are contained in the User Manual for the Electronic Reporting System (ERS)[26] of the Stockholm Convention on Persistent Organic Pollutants (POPs). This manual focuses on the information that is required, and thus, is a complement to the User Manual for the ERS.

Each new national report is prefilled with the information from the previous reporting cycle. You therefore do not need to re-enter data that has not changed. You will need to enter new data and if previous data have been revised (for example an inventory has been updated and data from previous periods modified with more accurate values) you will need to replace the existing data with the revised information.

Note that the user interface of the ERS is dynamic. For example, if a question requires you to answer Yes or No, once you select your answer and there is additional information required, the reporting format will then present the relevant sub-questions or parts for you to provide the additional detail. For more information on how the system works, please consult the User Manual for the ERS.

The Official Contact Point (OCP) to the Stockholm Convention in your country is the responsible authority to submit the national report. She or he may work together with a team of officers who help collect and enter the required information on the ERS, but the ultimate responsibility for the submission is of the OCP.

For a detailed implementation of the national report, take a look for guidance to the Manual for national reports under Article 15 of the Stockholm Convention, 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.

Integrated Electronic Toolkit

The low reporting rate by Parties has a direct impact on the capacity to evaluate the progress at the national and global levels and on the analysis required under the Effectiveness Evaluation process.[27] 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.

In response to the requests in paragraph 8 (e) of decision SC-8/8 on implementation plans, and paragraph 3 of decision SC-8/17 on reporting pursuant to Article 15 of the Stockholm Convention, as well as paragraph 7 (c) of decision SC-9/9 on implementation plans and decision SC-9/16 on reporting pursuant to Article 15 of the Stockholm Convention, a medium-sized project of the Global Environment Facility (GEF) was launched in October 2018 by the Chemicals and Health Branch of the United Nations Environment Programme (UNEP) to facilitate the development, transmission, access and use of data contained in national implementation plans and national reports.

The project's overall objective was to facilitate the development, transmission, access and use of data contained in national implementation plans (Article 7) and national reports (Article 15).

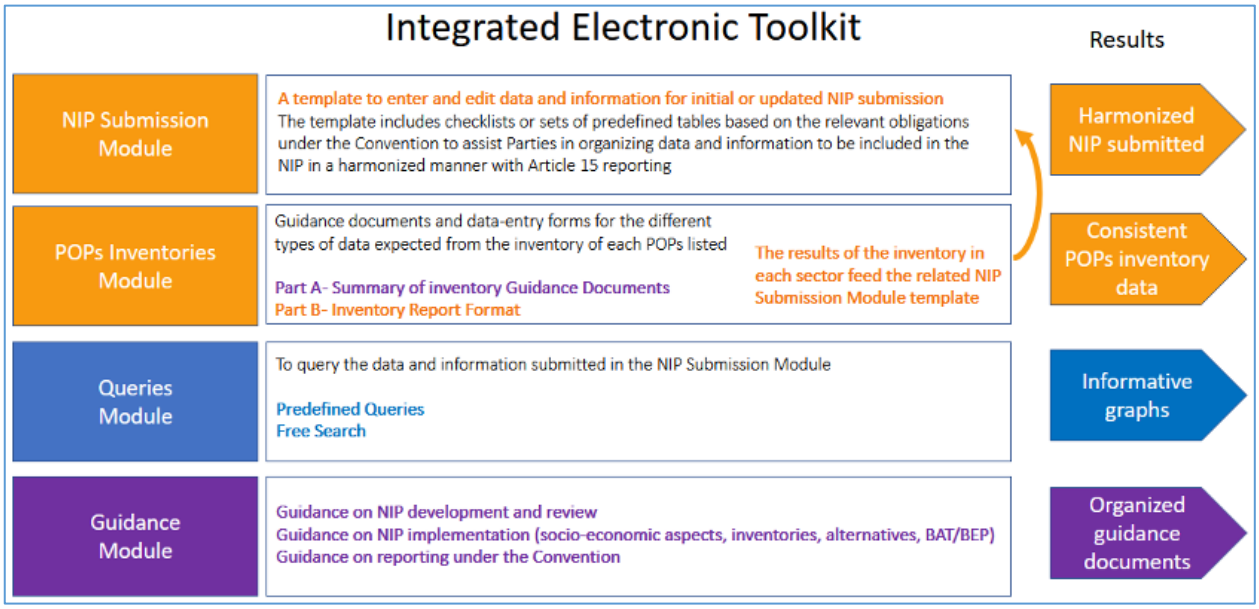
The project addressed some of the challenges that Parties face in complying with Articles 7 and 15 by providing them with an integrated electronic toolkit, consisting of a series of modules, aimed at assisting them in fulfilling their reporting obligations. The new toolkit could improve the transmission, accessibility and use of data contained in NIPs and national reports following recommendations from

[26] https://nips.pops.int/Guidance_docs/Document_3_1.pdf
[27] UNEP website on Improving the transmission of information for POPs, https://www.unep.org/explore-topics/chemicals-waste/what-we-do/persistent-organic-pollutants/national-implementation-1?_ga=2.95659292.1823283618.1678870085-1564636933.1678870085

the effectiveness evaluation committee. It is expected that consequently, NIP implementation will increase, leading to reduced emissions of persistent organic pollutants (POPs) in the long term.

The modular structure of the toolkit is harmonized with the structure of the national reporting and will help Parties organize and review their data to report to the COP in successive transmissions, fulfilling their obligations (Ibid).

Figure 7. The modular structure of the toolkit



The **NIP Submission Module** aims to assist Parties in organizing data and information in a template for their initial or updated NIP submissions. The template takes into account the identified standard elements of the NIPs and provides a modular approach to the development of updates to the NIP. The template provides sufficient flexibility to address certain dynamic elements that are likely to change with the listing of new POPs by future COPs.

The **POPs Inventory Module** presents the POPs inventory guidance documents in an electronic and user-friendly manner and aims at assisting Parties in managing data collected on POPs inventory. It encompasses entry-data forms for the different types of data expected for the different POPs listed in the annexes of the Stockholm Convention. This module will be further developed to support the digitization of the POPs inventories.

The **Guidance Module** contains contextualized links to relevant guidance documents and other toolkits (e.g. dioxin and furans toolkit) available that support the submissions of NIPs (e.g. inventory guidance documents) and National Reports (e.g. manuals).

The **Queries Module** aims to provide stakeholders with the possibility to query the data and information submitted in the NIPs submission module.

The Integrated Electronic Toolkit will further help in achieving the Sustainable Development Goals, particularly Goal 12.4 “to achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil to minimize their adverse impacts on human health and the environment”.

As per the recent decision of the 11th meeting of the SC Conferences of Parties, the toolkit will continue to undergo testing by SC Parties and their comments will be further addressed to improve the structure, features and functionalities of the toolkit.

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Annex I

Common source categories of POPs, mercury and greenhouse gas emissions under different frameworks to demonstrate the degree of overlap in activity data requirements

(Basel, Rotterdam, Stockholm Conventions Secretariat and the Minamata Convention Secretariat 2022)

Table 6. Overlap in activity data requirements

IPCC GHG source sub-category	Hg source sub-category	POP source category	Common activity data
Energy: 1A1a Public Electricity and Heat Production 1A1b Petroleum refining 1A1c Manufacture of Solid Fuels and Other Energy Industries 1A2e Food processing, beverages and tobacco 1A4a Commercial/Institutional 1A4b Residential 1A4c Agriculture/Forestry/Fishing Stationary 1A5a Other Stationary 1B2b Natural gas	5.1.1 Coal combustion in power plants 5.1.4 Natural gas - extraction, refining and use 5.1.5 Other fossil fuels 5.1.3 Mineral oils - extraction, refining and use 5.1.6 Biomass fired power and heat production (/biomass burning, /charcoal combustion)	3a Fossil fuel power plants, 3b Biomass power plants, 3c Landfill biogas combustion, 3d Household heating and cooking - biomass	Fuel consumption (TJ) and/or (tonnes)
Industry: Non-metallic Minerals 1B2 Oil and natural gas (oil shale processing) 2A1 Cement production; 1A2f Non-metallic minerals 2A2 Lime production; 1A2f Non-metallic minerals 2A3 Glass production; 1A2f Non-metallic minerals 1A2f Non-metallic minerals 2A4 Other Process Uses of Carbonates 2D4 Other (CH4, CO and NMVOC	5.3.1 Cement clinker production 5.3.3 Production of lime and lightweight aggregates	4a Cement production 4b Lime production 4c Brick production 4d Glass production 4e Ceramics production 4f Asphalt mixing 4g Oil shale processing	Fuel consumption (TJ) Cement production (tonnes) Clinker production (tonnes) Lime production (tonnes) Brick production (tonnes) Glass production (tonnes) Ceramics production (tonnes) Asphalt production (tonnes) Shale oil processing (tonnes)

IPCC GHG source sub-category	Hg source sub-category	POP source category	Common activity data
emissions from asphalt production and use)			
Industry: Ferrous and non-ferrous metal production 1A1c Manufacture of solid fuels and other energy industries 1A2a Iron and steel 2C1 Iron and steel production 1A2b Non-ferrous metals 2C3 Aluminium Production 1A2b Non-ferrous metals; 2C4 Magnesium production 1A2b Non-ferrous metals; 2C5 Lead Production 1A2b Non-ferrous metals; 2C6 Zinc Production 1A2b Non-ferrous metals; 2C7 Other metal industry 1A2b Non-ferrous metals; 2C7a Copper production 1A2b Non-ferrous metals	5.2.9 Primary ferrous metal production (pig iron) 5.2.4 Copper extraction and initial processing/Production of copper from concentrates 5.2.7 Aluminium extraction and initial processing/Production of alumina from bauxite 5.2.5 Lead extraction and initial processing/Production of lead from concentrates 5.2.3 Zinc extraction and initial processing/Production of zinc from concentrates	2a Iron ore sintering 2b Coke production 2c Iron and steel production plants and foundries 2d Copper production 2e Aluminium production 2f Lead production 2g Zinc production 2h Brass and bronze production 2i Magnesium production 2j Other non-ferrous metal production (e.g. Ni) 2k Shredders 2l Thermal wire reclamation	Fuel consumption (TJ) Iron ore sintering production (tonnes); pig iron production (tonnes) Coke production (tonnes) Iron and steel production (tonnes) by process route Copper production (tonnes) For Hg – Copper concentrate used (tonnes) Primary aluminium production (tonnes) For Hg – Bauxite used (tonnes) Lead production (tonnes) For Hg – Lead concentrate used (tonnes) Zinc production (tonnes) For Hg – Zinc concentrate used (tonnes) Brass and bronze production (tonnes) Magnesium production (tonnes) Production (tonnes) Metal shredded (tonnes) Wires reclamation and e-waste recycling (tonnes)
Industry: Chemicals and consumer goods 1A2c Chemicals 2B3 Adipic Acid 1A2c Chemicals 2B4 Caprolactam, Glyoxal and Glyoxylic 1A2c Chemicals 2B8b Ethylene 1A2c Chemicals 2B8c Ethylene dichloride and vinyl chloride monomer 1A2c Chemicals	5.3.2 Pulp and paper production 5.4.2 VCM production with mercury catalyst	7a Pulp and paper production 7b Chlorinated Inorganic chemicals 7c Chlorinated Aliphatic chemicals 7d Chlorinated Aromatic chemicals 7e Other Chlorinated and Non-Chlorinated Chemicals (per ton product) 7f Petroleum industry 7g Textile production 7h Leather refining	Fuel consumption (TJ) Pulp and paper production (tonnes) For Hg - Biomass used in production (tonnes) Chemical production (tonnes) For Hg – VCM produced (tonnes) Amount of input crude (tonnes); Production (tonnes) Production (tonnes) Solvent use (tonnes)

IPCC GHG source sub-category	Hg source sub-category	POP source category	Common activity data
2B10 Other chemical industry acid 1A2c Chemicals 2D3 Solvent Use 1A2d Pulp, Paper and Print 2H1 Pulp and paper industry 1A2l Textile and leather 1B2aiii4 Refining			
Transport 1A2h Machinery 1A3a Civil aviation 1A3b Passenger cars, Light duty vehicles, Heavy duty vehicles, Mopeds and motorcycles 1A3c Railways 1A3d Domestic Water-borne Navigation/National navigation 1A3d International Water-borne Navigation/International maritime navigation 1A3eii Other transportation – off-road 1A4cii-iii Agriculture/Forestry/ Fishing- off-road vehicles and other machinery 1A5b Other, Mobile (including military)		5a 4-stroke engines 5b 2-stroke engines 5c Diesel engines 5d Heavy oil-fired engines	Fuel consumption (TJ)
Waste 4A1 Solid Waste Disposal-Managed Waste Disposal Sites 4A2 Solid Waste Disposal-Unmanaged Waste Disposal Sites 4A3 Solid Waste Disposal-Uncategorised Waste Disposal Sites 4B Biological Treatment of Solid Waste 4C1 Waste	5.8.1 Incineration of municipal/general waste 5.8.2 Incineration of hazardous waste 5.8.3 Incineration of medical waste 5.8.4 Sewage sludge incineration 5.9.1 Controlled landfills/deposits; 5.9.4 Informal dumping of general waste 5.9.5 Wastewater system/ treatment 5.9.3 Informal local disposal of industrial production waste	1a Municipal solid waste incineration 1b Hazardous waste incineration 1c Medical waste incineration 1d Light fraction shredder waste incineration 1e Sewage sludge incineration 1f Waste wood and waste biomass incineration 1g Destruction of animal carcasses 9a Landfills, Waste Dumps and Landfill Mining	Amount of waste incinerated (tonnes) Amount of waste landfilled (tonnes) Sewage sludge production (tonnes) wastewater production (Mm3) Total organic product (tonnes) Degradable Organic component) N in effluent Untreated wastewater discharges (tonnes), as well as total nitrogen in wastewater (kg N) Wastewater treated

IPCC GHG source sub-category	Hg source sub-category	POP source category	Common activity data
Incineration 4C2 Open Burning of Waste 4D1 Domestic Wastewater Treatment and Discharge 4D2 Industrial Wastewater Treatment and Discharge 4E Other		9b Sewage/sewage treatment 9c Open water dumping 9d Composting 9e Waste oil treatment (non-thermal)	(Mm3) Total organic product (kt) Degradable organic component) N in effluent Amount of waste treated by biological treatment (composting and anaerobic digestion) (Gg) Fossil liquid oil incinerated (tonnes)
Other 3C1 – Emissions from biomass burning		6a Biomass burning 6b Waste burning and accidental fires	Area burnt (ha) Biomass burnt (tonnes) Amount of waste burnt (tonnes)

Annex II

Overview of the overlapping and gaps between qualitative information of Article 15 report and NIP[28]

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 the Stockholm Convention and on the effectiveness of such measures in meeting the objectives of the Convention	Section I. Article 7: Implementation plans	✓ 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	1. Introduction	✓ 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	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)	✓ 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

[28] GEF6 Medium-Sized Project: Integrated SC Toolkit to improve the transmission of information under Articles 7 and 15. Project component: Development and demonstration of Articles 7 and 15 electronic toolkit integrated - Output 1.1. Gap analysis 1. https://wedocs.unep.org/bitstream/handle/20.500.11822/41658/GEF_9884_Gap_Analysis.pdf?sequence=3&isAllowed=y

Article 15 reporting qualitative information			NIP qualitative information	
Part	**Section**	**Information requested**	**Chapter/sub-chapter**	**Information generated**
			2.3.4 Assessment of HCBD (Annex A, Part I) 2.3.5 Assessment of PCNs (Annex A, part I) 2.3.6 Assessment with respect to DDT (Annex B, Part II) 2.3.7 Assessment of PFOS, its salts and PFOSF (Annex B, Part III)	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 ✓ 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 of 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 POP 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

Article 15 reporting qualitative information			NIP qualitative information	
Part	**Section**	**Information requested**	**Chapter/sub-chapter**	**Information generated**
				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	✓ Undertaking an evaluation of the efficacy of the laws and policies	2.3.8 Assessment of releases of unintentional	✓ Existing laws and policies relating to the management of releases of unintentionally produced

Article 15 reporting qualitative information			NIP qualitative information	
Part	**Section**	**Information requested**	**Chapter/sub-chapter**	**Information generated**
	eliminate releases from unintentional production (BAT/BEP)	adopted to manage releases of unintentionally produced persistent organic pollutants (information on status and year)	produced chemicals (Annex C)	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) ✓ Quantification of the stockpiles consisting of, or containing, chemicals listed in Annex A or Annex B to the Convention	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

Article 15 reporting qualitative information			NIP qualitative information	
Part	**Section**	**Information requested**	**Chapter/sub-chapter**	**Information generated**
		(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 numbers, relevant regulations, guidance, remediation measures, and data on releases from sites	✓ Measures to manage stockpiles in a safe, efficient and environmentally sound manner
		✓ 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

Article 15 reporting qualitative information			NIP qualitative information	
Part	**Section**	**Information requested**	**Chapter/sub-chapter**	**Information generated**
		✓ 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	2.3.9 Information on the state of knowledge on stockpiles, contaminated sites and wastes,	✓ Steps taken to remediate the sites contaminated by chemicals listed in Annex A, B or C

Article 15 reporting qualitative information			NIP qualitative information	
Part	**Section**	**Information requested**	**Chapter/sub-chapter**	**Information generated**
		difficulties encountered)	identification, likely numbers, relevant regulations, guidance, remediation measures, and data on releases from sites	
	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, 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)	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 the 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	2.3.11 Existing programmes for monitoring releases and environmental and human health impacts, including findings 2.3.15	✓ Existent programmes for monitoring releases and environmental and human health impacts ✓ POPs monitoring findings ✓ Technical infrastructure for POPs assessment ✓ Description of POPs

Article 15 reporting qualitative information			NIP qualitative information	
Part	**Section**	**Information requested**	**Chapter/sub-chapter**	**Information generated**
		and to candidate persistent organic pollutants (information on status, type of action, year, type of activity or difficulties encountered)	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 health and environmental quality, and social implications for workers and local communities	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
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	2.3.2 Assessment of PCBs (Annex A, Part II)	✓ Legal, institutional, regulatory and enforcement systems for PCBs management

Article 15 reporting qualitative information			NIP qualitative information	
Part	**Section**	**Information requested**	**Chapter/sub-chapter**	**Information generated**
		(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)	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)	2.3.9 Information on the state of knowledge on stockpiles,	✓ Sites potentially contaminated/contaminated by PCBs

Article 15 reporting qualitative information			NIP qualitative information	
Part	**Section**	**Information requested**	**Chapter/sub-chapter**	**Information generated**
		PCB (information on status and year)	contaminated sites and wastes, identification, likely 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	2.3.9 Information on the state of knowledge on stockpiles, contaminated sites and wastes,	✓ Measures to identify and label, where appropriate, POPs in open applications

Article 15 reporting qualitative information			NIP qualitative information	
Part	**Section**	**Information requested**	**Chapter/sub-chapter**	**Information generated**
		(e.g. cable-sheaths, cured caulk and painted objects) (information on status, year, types of measures)	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 eliminating perfluorooctane sulfonic acid, its salts and perfluorooctane sulfonyl fluoride in accordance with paragraph 3 in Part III of		✓ 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

Article 15 reporting qualitative information			NIP qualitative information	
Part	**Section**	**Information requested**	**Chapter/sub-chapter**	**Information generated**
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	2.3.7 Assessment of	✓ Legal, institutional, regulatory and

Article 15 reporting qualitative information			NIP qualitative information	
Part	**Section**	**Information requested**	**Chapter/sub-chapter**	**Information generated**
		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)	PFOS, its salts and PFOSF (Annex B, Part III)	enforcement systems for PFOS and related chemicals and articles and 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

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	✓ 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)

	production (PCBs)			
	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)	✓ 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

			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)	the production of polyfluorinated naphthalenes (PFNs) or for other purposes) – historical and current; ✓ Quantity of PFOS, its salts and PFOS-F produced (tonnes)
		✓ 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)	✓ 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)

			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 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$)) ✓ Receiving technical assistance in accordance with Article 12 of the Convention (information on status, year, type of technical assistance and total value (US$))	2.4 Implementation status	✓ Status of the previous NIP(s) implementation at the national level
	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	2.4 Implementation status	✓ Status of the previous NIP(s) implementation at the national level

		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 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 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	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 (%)

		(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	✓ Statistical data of locally destroyed, in an	2.3.2 Assessment of	✓ Quantity of PCBs locally destroyed (tonnes)

	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	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))	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	
		✓ 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.	2.3.2 Assessment of PCBs (Annex A, Part II) 2.3.9 Information on the state of	✓ Quantity of PCBs exported for environmentally sound disposal (tonnes)

		transformers, capacitors or other receptacles containing liquid stocks) for environmentally sound destruction (type of PCB, year and quantity (metric tons))	knowledge on stockpiles, contaminated sites and wastes, identification, likely numbers, relevant regulations, guidance, remediation measures, and data on releases from sites	
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))	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 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 produced as allowed by the specific exemptions (tonnes)
		✓ 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

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

POPs	Other reporting obligations under the 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 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)	✓ 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)	2.3.8 Assessment of releases of unintentiona	✓ Situation regarding BAT/BEP implementation within industries and

POPs	Other reporting obligations under the Stockholm Convention qualitative information			NIP qualitative information	
	Part/Section	**Section**	**Information requested**	**Sub-chapter**	**Information generated**
			and best environmental practices (BEP) for new sources and existing sources (information on status and year for new and existing sources)	I produced chemicals (Annex C)	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, year, types of	2.3.2 Assessment of PCBs (Annex A, Part II)	✓ Legal, institutional, regulatory and enforcement systems for PCBs management

POPs	Other reporting obligations under the Stockholm Convention qualitative information			NIP qualitative information	
	Part/Section	**Section**	**Information requested**	**Sub-chapter**	**Information generated**
			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 numbers, relevant regulations, guidance, remediation measures, and data on	✓ Sites potentially contaminated/contaminated by PCBs

POPs	Other reporting obligations under the Stockholm Convention qualitative information			NIP qualitative information	
	Part/Section	**Section**	**Information requested**	**Sub-chapter**	**Information generated**
				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	2.3.9 Information on the state of knowledge on stockpiles, contaminated sites and wastes, identification, likely	✓ Measures to identify and label, where appropriate, POPs in open applications

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	Part/Section	**Section**	**Information requested**	**Sub-chapter**	**Information generated**
			status, year, types of measures)	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
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	2.3.10 Summary of future production, use, and	✓ Projections on production, use, and releases of POPs; ✓ need for specific

POPs	Other reporting obligations under the Stockholm Convention qualitative information			NIP qualitative information	
	Part/Section	**Section**	**Information requested**	**Sub-chapter**	**Information generated**
			specific exemption for hexabromodiphenyl ether and heptabromodiphenyl ether and/or tetrabromodiphenyl ether and pentabromodiphenyl ether or difficulties encountered	releases of POPs – requirements for exemptions	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 (information on types of 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)	✓ 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)	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

POPs	Other reporting obligations under the Stockholm Convention qualitative information			NIP qualitative information	
	Part/Section	Section	Information requested	Sub-chapter	Information generated
					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 manner, types of articles, 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 ✓ 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)

POPs	Other reporting obligations under the Stockholm Convention qualitative information			NIP qualitative information	
	Part/Section	**Section**	**Information requested**	**Sub-chapter**	**Information generated**
		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)	✓ Ttypes 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, contaminate	✓ Types of disposed articles that are manufactured from POP-PBDEs-containing materials

POPs	Other reporting obligations under the Stockholm Convention qualitative information			NIP qualitative information	
	Part/Section	**Section**	**Information requested**	**Sub-chapter**	**Information generated**
				d sites and wastes, identification, likely numbers, relevant regulations, guidance, remediation measures, and data on releases from sites	
		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)	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
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	2.3.1 Assessment of POPs	✓ DDT stocks in use

POPs	Other reporting obligations under the Stockholm Convention qualitative information			NIP qualitative information	
	Part/Section	**Section**	**Information requested**	**Sub-chapter**	**Information generated**
			conditions of storage)	pesticides (Annex A, Part I) 2.3.6 Assessment with respect to DDT (Annex B, Part II)	
		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 POPs – requirements for exemptions	✓ Need for specific exemptions and/or acceptable purposes
			✓ 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	✓ Disease and main vector species targeted by DDT used for disease vector control

POPs	Other reporting obligations under the Stockholm Convention qualitative information			NIP qualitative information	
	Part/Section	**Section**	**Information requested**	**Sub-chapter**	**Information generated**
				to DDT (Annex B, Part II)	
		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 chemicals already in the market	✓ Description of the system for the assessment and regulation of 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)		

POPs	Other reporting obligations under the Stockholm Convention qualitative information			NIP qualitative information	
	Part/Section	**Section**	**Information requested**	**Sub-chapter**	**Information generated**
			✓ 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 alternative intervention to DDT (information on status and type of research/testing)	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
		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	✓ Description of POPs measurement, analysis, alternatives and prevention measures ✓ POPs research and development activities

POPs	Other reporting obligations under the Stockholm Convention qualitative information			NIP qualitative information	
	Part/Section	**Section**	**Information requested**	**Sub-chapter**	**Information generated**
				measures, research and development – linkage to international programmes and projects	
			✓ 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 among 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 among communities and households on safety issues relating to DDT use in disease vector control
			✓ System in place to monitor exposure to DDT (information on status)	2.3.11 Existing programmes for monitoring releases and environmen	✓ Existent programmes for monitoring releases and environmental and human health impacts

POPs	Other reporting obligations under the Stockholm Convention qualitative information			NIP qualitative information	
	Part/Section	**Section**	**Information requested**	**Sub-chapter**	**Information generated**
				tal and human health impacts, including findings	✓ 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	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

POPs	Other reporting obligations under the Stockholm Convention qualitative information			NIP qualitative information	
	Part/Section	**Section**	**Information requested**	**Sub-chapter**	**Information generated**
			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	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; ✓ 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)	✓ Types of the chemicals produced exported, imported, exported and used ✓ 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	✓ Progress in eliminating the POPs listed in Annexes A and/or B

POPs	Other reporting obligations under the Stockholm Convention qualitative information			NIP qualitative information	
	Part/Section	**Section**	**Information requested**	**Sub-chapter**	**Information generated**
				numbers, relevant regulations, guidance, remediation measures, and data on releases from sites	
		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

POPs	Other reporting obligations under the Stockholm Convention qualitative information			NIP qualitative information	
	Part/Section	**Section**	**Information requested**	**Sub-chapter**	**Information generated**
		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 and human health impacts, including findings	✓ Existent programmes for monitoring releases and environmental and human health impacts; ✓ 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	✓ Economic viability of the alternatives to	2.3.7 Assessment	✓ Experiences of using PFOS

POPs	Other reporting obligations under the Stockholm Convention qualitative information			NIP qualitative information	
	Part/Section	**Section**	**Information requested**	**Sub-chapter**	**Information generated**
		economically viable?	PFOS, its salts, PFOSF and their related chemicals; ✓ cost-effectiveness, including environmental, health and socio-economic costs	of PFOS, its salts and PFOSF (Annex B, Part III)	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 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	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
		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	✓ Classification according to the Global Harmonization System or other	2.3.7 Assessment of PFOS, its salts and PFOSF	✓ Experiences of using PFOS alternatives in the areas of the allowed acceptable purposes

POPs	Other reporting obligations under the Stockholm Convention qualitative information			NIP qualitative information	
	Part/Section	**Section**	**Information requested**	**Sub-chapter**	**Information generated**
		characteristics and other hazards	systems ✓ Exposure (e.g. monitoring data) and environmental fate of the chemical	(Annex B, Part III)	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 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