



Stockholm Convention on Persistent Organic Pollutants

**Conference of the Parties to the Stockholm
Convention on Persistent Organic Pollutants
Sixth meeting**

Geneva, 28 April–10 May 2013

Item 5 (a) (i) of the provisional agenda*

**Matters related to the implementation of the Convention:
measures to reduce or eliminate releases from intentional
production and use: DDT**

Evaluation of the continued need for DDT for disease vector control and promotion of alternatives to DDT

Note by the Secretariat

I. Introduction

1. Paragraph 6 of part II of Annex B to the Stockholm Convention on Persistent Organic Pollutants states that, commencing at its first meeting and at least every three years thereafter, the Conference of the Parties shall, in consultation with the World Health Organization (WHO), evaluate the continued need for DDT for disease vector control on the basis of available scientific, technical, environmental and economic information.
2. Given that its ordinary meetings are held every two years, the Conference of the Parties decided, as indicated in paragraph 2 of the revised process for DDT reporting, assessment and evaluation set out in annex I to decision SC-3/2, that an evaluation of the continued need for DDT for disease vector control would be undertaken at each ordinary meeting. As part of this process a DDT expert group was established to assess information relevant to the production and use of DDT and to assist the Conference of the Parties in the evaluation of the continued need for DDT.
3. In paragraph 3 of decision SC-5/6, on DDT, the Conference of the Parties concluded that countries that are relying on DDT for disease vector control may need to continue such use until locally appropriate and cost-effective alternatives are available for a sustainable transition away from DDT.
4. In paragraph 4 of the decision, the Conference of the Parties adopted the list of parties to be invited to nominate experts to serve as members of the DDT expert group as set out in the annex to the decision, for terms of office of four years commencing in September 2011.
5. In paragraph 7 of the decision, the Conference of the Parties decided to evaluate the continued need for DDT for disease vector control, at its sixth meeting, on the basis of scientific, technical, environmental and economic information, including that provided by the DDT expert group and the Persistent Organic Pollutants Review Committee.

* UNEP/POPS/COP.6/1.

6. In paragraphs 8 to 10 of the decision, the Conference of the Parties requested:

- (a) The DDT expert group to undertake an assessment of the continued need for DDT for disease vector control on the basis of factual information provided by parties and observers;
- (b) The Persistent Organic Pollutants Review Committee, beginning at its eighth meeting, to assess the alternatives to DDT in accordance with the general guidance on considerations related to alternatives and substitutes for listed persistent organic pollutants and candidate chemicals;¹
- (c) The Secretariat to take active steps to collect and compile the information necessary to facilitate the work of the DDT expert group and the Persistent Organic Pollutants Review Committee and to enable them to provide guidance to the Conference of the Parties in making the evaluation at its sixth meeting referred to in paragraph 5 above.

7. In paragraph 12 of the decision, the Conference of the Parties recognized that the Secretariat had performed excellent work to date in facilitating the work of the Global Alliance for the Development and Deployment of Products, Methods and Strategies as Alternatives to DDT for Disease Vector Control but noted that the Secretariat was limited both by its mandate and by its resources, which may restrict its ability to implement substantive technical activities effectively. In paragraph 13, the Conference of the Parties requested the Secretariat to facilitate a transition of the leadership of the Global Alliance, in a sustainable manner, from the Secretariat to one or more United Nations agencies whose mandate was better suited to the implementation of a major project such as the Global Alliance, and to report to the Conference of the Parties at its sixth meeting on the progress of the transition.

II. Implementation

A. Reporting on and assessment of the continued need for DDT for disease vector control

8. On 17 February 2012, Myanmar notified the Secretariat of its withdrawal from the register of DDT for use for acceptable purposes owing to the availability of alternatives to DDT for disease vector control.

B. Assessment of information on production and use by DDT expert group

9. The list of members of the DDT expert group nominated by the parties listed in the annex to decision SC-5/6 whose terms of office commenced in September of 2011 is contained in the annex to document UNEP/POPS/COP.6/INF/2.

10. In accordance with the process set out in decision SC-3/2, on 25 January 2012 the Secretariat circulated to parties the DDT questionnaire for reporting by each party on the production and use of DDT for disease vector control and for reporting other information relevant to the evaluation of the continued need for DDT. The information collected through the DDT questionnaire for the period 2009–2011, among others, was compiled in a preliminary report, which was used by the DDT expert group as a working document for its assessment of scientific, technical and economic information to be considered by the Conference of the Parties.

11. To further facilitate the work of the DDT expert group, the Secretariat put in place a consultative process using online communication tools to provide the members of the expert group with an enhanced opportunity to work intersessionally. The consultative process included the establishment of a working group in the “POPs Social” network to share related technical reports and exchange information. An initial online meeting of members was convened on 22 March 2012 and a second on 30 March 2012 to identify key elements of the assessment and possible intersessional activities to be undertaken. Furthermore, a series of webinars was conducted on the following topics related to the work of the DDT expert group:

- (a) “Assessment on DDT and its alternatives for malaria and kala-azar control in India”, on 3 July 2012, by Mr. Rajander Singh Sharma, Ministry of Health and Family Welfare, India;
- (b) “New directions in vector control”, on 17 July 2012, by Mr. Robert Sloss, Innovative vector control consortium, United Kingdom of Great Britain and Northern Ireland;

¹ UNEP/POPS/POPRC.5/10/Add.1.

(c) “Filling the global public health pesticide toolbox: processes, products, and prospects”, on 22 August 2012, by Mr. Karl Malamud-Roam, IR-4 Project Headquarters, State University of New Jersey, United States of America.

12. The DDT expert group met from 3 to 5 December 2012 to assess the continued need for DDT for disease vector control.² The report on the assessment of the production and use of DDT and its alternatives for disease vector control with recommendations to the Conference of the Parties is contained in document UNEP/POPS/COP.6/INF/2. The conclusions of the assessment by the DDT expert group and its recommendations to the Conference of the Parties are reproduced in annex I to the present note.

13. The DDT expert group recognized that there is a continued need for DDT in specific settings for disease vector control where effective or safer alternatives are still lacking. Having recognized the continued need for DDT for disease vector control, it recommended, among other things, that the use of DDT in indoor residual spray should be limited only to the most appropriate situations based on operational feasibility, epidemiological impact of disease transmission, entomological data and insecticide resistance management. It also recommended that countries should undertake further research on and implementation of non-chemical methods and strategies for disease vector control to supplement a reduced reliance on DDT.

C. Assessment of alternatives to DDT by the Persistent Organic Pollutants Review Committee

14. To facilitate the work of the Persistent Organic Pollutants Review Committee on the assessment of alternatives to DDT, the Secretariat prepared a compilation of background information in consultation with WHO, including a document on developing a framework for the assessment of alternatives to DDT as set out in document UNEP/POPS/POPRC.7/INF/19.

15. At its seventh meeting, the Committee established an ad hoc working group to undertake the activities requested by the Conference of the Parties as referred to in paragraph 6 (b) above. The ad hoc working group assessed 11 alternative chemicals recommended by WHO for disease vector control.

16. The outcomes of the intersessional work of the ad hoc working group³ were considered by the Committee at its eighth meeting, on the basis of which the Committee concluded that bifenthrin might meet all the criteria set out in Annex D of the Convention but remained undetermined due to equivocal or insufficient data. In its decision POPRC-8/7, on assessment of alternatives to DDT, the Committee decided to submit to the Conference of the Parties for consideration at its sixth meeting the summary report on the assessment of chemical alternatives to DDT for disease vector control, which is reproduced in annex II to the present note. In the same decision, the Committee also decided to forward to the Conference of the Parties for information, the full report on the assessment of chemical alternatives to DDT⁴ and the fact sheets on chemical alternatives to DDT.⁵

17. In collaboration with WHO, the Secretariat organized a workshop, held in Nairobi from 29 to 31 August 2012, to enhance the national capacities of Ethiopia, Gambia, Madagascar, Mauritius, Mozambique, Senegal, Swaziland, Uganda and Zambia for data collection, information exchange and informed decision-making within an integrated vector management approach for disease vector control to reduce reliance on DDT and for reporting on its use under the Convention.⁶ The workshop also served as the inception meeting of the participating countries implementing the project entitled “Establishment of efficient and effective data collection and reporting procedures for evaluating the continued need of DDT for disease vector control” funded by the Global Environment Facility and executed by the WHO.

² The report of the meeting of the DDT expert group is set out in document UNEP/POPS/DDT-EG.4/2.

³ UNEP/POPS/POPRC.8/INF/12 and UNEP/POPS/POPRC.8/INF/13.

⁴ UNEP/POPS/POPRC.8/INF/30.

⁵ UNEP/POPS/POPRC.8/INF/31.

⁶ The report of the workshop is available from <http://chm.pops.int/Implementation/TechnicalAssistance/TrainingWorkshops/Africa/TrainingIVMNairobi2012/ta/bid/2791/Default.aspx>.

D. Global Alliance for the Development and Deployment of Products, Methods and Strategies as Alternatives to DDT for Disease Vector Control

18. As requested in paragraph 13 of decision SC-5/6, the Secretariat successfully completed the transition of the leadership of the Global Alliance from the Secretariat to the Chemicals Branch of the Division of Technology, Industry and Economics of the United Nations Environment Programme (UNEP Chemicals). In a letter dated 11 May 2012, UNEP Chemicals informed the Secretariat of its willingness to integrate the Global Alliance into its programme of work for 2012–2013 and to develop and implement activities in accordance with the work plan developed for the Global Alliance.

19. To support this transition and to help ensure its sustainability, the Secretariat provided \$33,300 from the voluntary Special Trust Fund of the Stockholm Convention that had previously been provided by donors for the Global Alliance. The Secretariat also approved the gratis transfer of a staff member, Mr. Donald Cooper, to UNEP Chemicals from 3 April–25 October 2012 to facilitate the transition and to assume a leadership role in administering the Global Alliance, among other duties.

20. UNEP Chemicals has convened, in collaboration with the Secretariat and in consultation with WHO, a meeting of the steering committee of the Global Alliance to review its programme of work and implementation strategies in Nairobi, Kenya, from 29 to 31 August 2012. A report by UNEP Chemicals on progress in the implementation of the Global Alliance is presented in document UNEP/POPS/COP.6/INF/3.

21. The Secretariat has continued to collaborate with UNEP Chemicals in efforts to implement the activities of the Global Alliance on alternatives to DDT.

III. Proposed action

22. The Conference of the Parties may wish to adopt a decision along the following lines:

The Conference of the Parties

1. *Takes note* of the report by the DDT expert group on the assessment of the continued need for DDT for disease vector control, including the conclusions and recommendations contained therein;¹
2. *Concludes* that countries that are relying on DDT for disease vector control may need to continue such use until locally appropriate and cost-effective alternatives are available for a sustainable transition away from DDT;
3. *Notes* the necessity to provide technical, financial and other assistance to developing countries, least developed countries, small island developing States and countries with economies in transition for a transition away from reliance on DDT for disease vector control, with due priority accorded to ensuring that adequate systems and institutional capacity are in place to enable evidence-based decision making;
4. *Requests* the Secretariat, in consultation with the DDT expert group, to develop a draft workplan to assist parties in ensuring that the use of DDT in indoor residual spray is limited only to the most appropriate situations based on operational feasibility, epidemiological impact of disease transmission, entomological data and insecticide resistance management, for consideration by the Conference of the Parties at its seventh meeting;
5. *Decides* to evaluate the continued need for DDT for disease vector control on the basis of available scientific, technical, environmental and economic information, including that provided by the DDT expert group at its seventh meeting, with the objective of accelerating the identification and development of locally appropriate cost-effective and safe alternatives;
6. *Requests* the DDT expert group to undertake an assessment of the continued need for DDT for disease vector control on the basis of factual information provided by parties and observers and compiled by the Secretariat as referred to in paragraph 7 below;
7. *Requests* the Secretariat to take active steps to collect and compile the information necessary to facilitate the work of the DDT expert group to enable the provision of guidance to the Conference of the Parties at its seventh meeting to undertake the evaluation referred to in paragraph 6 above;
8. *Welcomes* the existing collaboration with the World Health Organization and invites continued collaboration in the work referred to above and in any other manner that may support the Conference of Parties in future evaluations of the continued need for DDT for disease vector control and in promoting suitable alternatives to DDT for disease vector control;
9. *Takes note* of the report by the Persistent Organic Pollutants Review Committee on the assessment of alternatives to DDT;²
10. *Recognizes* that the report on the assessment of chemical alternatives to DDT by the Persistent Organic Pollutants Review Committee should not be seen as a comprehensive and detailed assessment of all available information and that failure to meet the thresholds of persistent organic pollutant characteristics should not be taken as evidence that a chemical is not a persistent organic pollutant;
11. *Also recognizes* that the chemicals that, according to this assessment, are not likely to fulfil the criteria on persistence and bioaccumulation in Annex D, may still exhibit hazardous characteristics that should be assessed by parties and observers before considering such chemicals to be suitable alternatives to DDT;
12. *Encourages* parties to consider the outcome of the assessment of chemical alternatives to DDT by the Persistent Organic Pollutants Review Committee when choosing chemical alternatives to DDT for disease vector control;

¹ UNEP/POPS/COP.6/INF/2.

² UNEP/POPS/POPRC.8/INF/30.

13. *Welcomes* the decision by the United Nations Environment Programme to take over the administration and implementation of the Global Alliance for the Development and Deployment of Products, Methods and Strategies as Alternatives to DDT for Disease Vector Control, and expresses appreciation for its collaboration to facilitate a transition of leadership of the Global Alliance in a sustainable manner;

14. *Takes note* of the report by the United Nations Environment Programme³ on progress in the implementation of the Global Alliance, and invites the United Nations Environment Programme to report on progress in the implementation of the Global Alliance to the Conference of the Parties at its seventh meeting;

15. *Requests* the Secretariat to continue to participate in the activities of the Global Alliance;

16. *Invites* Governments, intergovernmental and non-governmental organizations, research institutions, industry bodies and other stakeholders to provide technical and financial resources to support the work of the Global Alliance.

³ UNEP/POPS/COP.6/INF/3.

Annex I

Conclusions and recommendations contained in the report of the expert group on the assessment of the production and use of DDT and its alternatives for disease vector control¹

Conclusions

1. In certain settings, there is a continued need for DDT for disease vector control in accordance with WHO recommendations and guidelines on the use of DDT, until locally appropriate and cost-effective alternatives are deployed for a sustainable transition away from DDT.
2. Increased capacity is needed for sound management of DDT, including obsolete stocks, in accordance with international guidelines.
3. Within this reporting period of 2009-2011, the Global trend of DDT production and use has varied, with a decrease compared to previous years.
4. Long Lasting Insecticidal Nets (LLINs) is one of the effective alternative methods to Indoor Residual Spray (IRS) in vector control programmes when optimum coverage, use and effectiveness are achieved.
5. Insecticide resistance is one of the major threats to global malaria and leishmaniasis control and elimination efforts.
6. There is a lack of new active ingredients with new modes of action and long lasting efficacy to replace DDT.
7. A number of new formulations of insecticides, such as alpha-cypermethrin, pirimiphos-methyl and deltamethrin, are in the WHO evaluation process and are potential alternatives to DDT.
8. Research is ongoing on non-chemical alternatives, methods and strategies for disease vector control but are yet to be established as tools in disease vector control programmes.
9. Inadequate technical, managerial and institutional capacity exists:
 - (a) To translate international policies, tools, best practices and guidelines on pesticide management and alternatives to DDT based vector control into locally appropriate programmes;
 - (b) At national level, to implement disease vector control programmes including monitoring, evaluation, entomological/ecological assessments and quality assurance to assess the performance and impact of interventions and strategies;
 - (c) At national level, to conduct operational research for evidence-based decision-making on disease vector control.
10. Funding opportunities will be available to build capacity in several vector borne disease endemic countries to strengthen national capacity for innovative implementation of integrated vector management.
11. The Global Alliance for development and deployment of alternatives to DDT serves as one of the important mechanisms for providing assistance to countries in strengthening their capacity towards reducing reliance on DDT.

Recommendations

1. The DDT Expert Group recognizes that there is a continued need for DDT in specific settings for disease vector control where effective or safer alternatives are still lacking.
2. Where DDT use is continued, mechanisms should be in place to effectively ensure that DDT is used strictly within the WHO recommendations and guidelines for disease vector control.
3. The use of DDT in IRS should be limited only to the most appropriate situations based on operational feasibility, epidemiological impact of disease transmission, entomological data and insecticide resistance management.

¹ UNEP/POPS/COP.6/INF/2.

4. Countries and partners should be encouraged to evaluate new insecticide formulations as suitable alternatives to DDT in IRS.
5. Countries should undertake further research and implementation of non-chemical methods and strategies for disease vector control to supplement reduced reliance on DDT.
6. Funding should be made available to support countries to transition away from the reliance on DDT for disease vector control, with the highest priority to assure that adequate systems and institutional capacity are in place to train and support skilled staff for entomological monitoring, operational research, evidence-based decision-making and to monitor programme performance.
7. Funding should be made available to increase the national policy and management capacity for translating international best practices on disease vector control and implementing quality assurance systems to assess programme performance and impact.
8. The Secretariat of the Stockholm Convention should continue to facilitate activities on strengthening capacity to transition away from the reliance on DDT for disease vector control.

Annex II

Summary report on the assessment of chemical alternatives to DDT

A. Introduction

1. This is a summary report on the assessment of chemical alternatives to dichlorodiphenyltrichloroethane (DDT) conducted by the Persistent Organic Pollutants Review Committee pursuant to the request by the Conference of the Parties to the Stockholm Convention on Persistent Organic Pollutants in decision SC 5/6.
2. The chemicals recommended by the World Health Organization for disease vector control in indoor residual spraying as alternatives to DDT were assessed for persistent organic pollutant characteristics.
3. To facilitate the work of the DDT Expert Group without duplicating it, the Committee focused on the scientific and technical work relating to persistent organic pollutant characteristics of the alternatives assessed. The Committee did not evaluate economic information on alternatives to DDT, including information on the availability and accessibility of alternatives to DDT relating to the evaluation by the Conference of the Parties of the continued need for DDT for disease vector control.
4. A full report on the assessment can be found in document UNEP/POPS/POPRC.8/INF/30. In addition, fact sheets that include information relating to eleven chemical alternatives to DDT are set out in document UNEP/POPS/POPRC.8/INF/31.

B. Assessment of chemical alternatives to DDT

5. A total of eleven chemical alternatives to DDT were assessed for persistent organic pollutant properties.
6. The outcome of the assessment of the alternatives to DDT is presented in annex IV to the full report. In summary, the alternatives were classified as follows:

<p>Class 1: chemicals that the committee considered met all Annex D criteria</p> <p>None</p>
<p>Class 2: chemicals that the committee considered might meet all Annex D criteria but remained undetermined due to equivocal or insufficient data</p> <p>Bifenthrin</p>
<p>Class 3. chemicals that the committee considered not likely to fulfil the criteria in Annex D</p> <p>Alpha-cypermethrin, bendiocarb, cyfluthrin, lambda-cyhalothrin, deltamethrin, etofenprox, fenitrothion, malathion, pirimiphos-methyl and propoxur</p>

7. It is important to note that the assessment of the persistent organic pollutant characteristics of the alternatives should not be seen as a comprehensive and detailed assessment of all available information, because only a limited number of databases have been consulted, as indicated in the full report. The fact sheets on which the assessment is based provide an analysis on a screening level as to whether a chemical meets the numerical thresholds in Annex D to the Stockholm Convention, but contain no analysis of monitoring data or other evidence as provided for in Annex D. Therefore, failure to meet the thresholds should not be taken as evidence that the chemical is not a persistent organic pollutant. In addition, chemicals that according to this report are not likely to fulfil the criteria in Annex D may still exhibit hazardous characteristics that should be assessed by parties and observers before considering such chemicals to be suitable alternatives to DDT.

C. Information gaps

8. Bifenthrin was assessed in the assessment and might meet all of the Annex D criteria but this remains undetermined due to equivocal or insufficient data. The Conference of the Parties may wish to consider whether further work should be undertaken on this chemical.