

## SC-1/25: DDT

### *The Conference of the Parties*

1. *Adopts* the format of the DDT register contained in annex I of the present decision and requests the Secretariat to continue to make it publicly available on the Convention website (www.pops.int);
2. *Approves* the form for notification of production and use of DDT for disease vector control contained in annex II of the present decision and requests the Secretariat to continue to make it publicly available on the Convention website;
3. *Reminds* Parties of their obligation in paragraphs 2 and 3 of part II of Annex B to the Convention to notify the Secretariat of their intention to produce and/or use DDT for disease vector control, and to do so by means of the form referred to in paragraph 2 above;
4. *Adopts* the format and questionnaire contained in annex III to the present decision and requests the Secretariat, in cooperation with the World Health Organization, to keep under regular review the adequacy of the information required under sections A, B, C and D thereof and propose to the Conference of the Parties any modifications that are deemed essential;
5. *Reminds* Parties that use DDT for disease vector control to provide to the Secretariat and the World Health Organization (in 2007 and every third year thereafter) information on the amount used, the conditions of such use and its relevance to each Party's disease management strategy, as required under paragraph 4 of part II of Annex B to the Convention;
6. *Reminds* Parties that produce, use, export, import or maintain stocks of DDT to so inform the Secretariat and the World Health Organization through sections A, B, C and D of the questionnaire set out in annex III to the present decision in order to assist the Conference of the Parties in its evaluation of the continued need for DDT in disease vector control;
7. *Adopts* the list of information items needed for the evaluation of the continued need for DDT for disease vector control set out in annex IV to the present decision and requests the Secretariat, in cooperation with the World Health Organization, to keep under regular review the adequacy of the information required and propose to the Conference of the Parties any modifications that are deemed essential;
8. *Takes note* of the report of the expert group contained in annex II to the note by the Secretariat on evaluation of the continued need for DDT for disease vector control,<sup>1</sup> including the conclusions and recommendations contained therein, and based on them:
  - (a) *Concludes* that countries that are currently using DDT for disease vector control may need to continue such use until locally appropriate and cost-effective alternatives are available for sustainable transition away from DDT;
  - (b) *Concludes* that sufficient capacity at the national and subnational levels is necessary for effective implementation, monitoring and impact evaluation (including associated data management) of the use of DDT and its alternatives in disease vector control, and recommends that the financial mechanism of the Convention support activities to build and strengthen such capacity as well as measures to strengthen relevant public health systems;
  - (c) *Requests* the Secretariat, in cooperation with the World Health Organization, to elaborate further the reporting and evaluation process on DDT, as envisaged in the first recommendation of the expert group report on DDT, and to prepare cost estimates on such a process for consideration by the Conference of the Parties at its second meeting;
  - (d) *Requests* the Secretariat, in cooperation with the World Health Organization, to provide an overview of alternatives and their effectiveness to assist Parties in their goal of reducing and ultimately eliminating the use of DDT;
  - (e) *Decides* that adequate resources should be budgeted for 2006 to meet the needs specified for activities 2 and 3 of the work plan outlined in annex III to the note by the Secretariat on evaluation of the continued need for DDT for disease vector control, on immediate actions to support the preparations of Parties for reporting on DDT and the review and assessment process required for future

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<sup>1</sup>

UNEP/POPS/COP.1/4.

evaluations of the continued need for DDT, and invites countries to provide in 2005 the resources necessary for activity 1;

(f) *Requests* the financial mechanism of the Convention, and invites other international financial institutions, to support ongoing processes to develop global partnerships on long-term strategies for developing and deploying cost-effective alternatives to DDT, including the development of insecticides for indoor residual spraying, long-lasting insecticide treated materials and non-chemical alternatives;

(g) *Requests* the Secretariat to work closely with the World Health Organization on ongoing efforts to provide global leadership for the partnerships referred to in subparagraph 8 (f) above;

9. *Invites* States that are non-Parties to the Convention to participate in the activities outlined above.





**FORM  
DDT REGISTRATION**

**PARTY (Country name):**

**DDT REGISTER NOTIFICATION**

**Pursuant to paragraphs 1 and 2 of Part II to Annex B of the Convention, the Secretariat for the Stockholm Convention is herewith notified of the production and/or use of DDT for disease vector control in accordance with the World Health Organization recommendations and guidelines.**

<b>Notification of production</b>	Ongoing: yes / no; Planned as from _____ (date)
<b>Notification of use</b>	Ongoing: yes / no ; Planned as from _____ (date)
<b>Disease &amp; Vector(s) targeted</b>	
<b>Remarks</b>	

**THIS NOTIFICATION OF HAS BEEN SUBMITTED BY:**

<b>Name:</b>	
<b>Institution/Department</b>	
<b>Address</b>	
<b>Telephone</b>	
<b>Telefax</b>	
<b>E-mail address</b>	
<b>Date and signature:</b>	

**PLEASE RETURN THE COMPLETED FORM TO:**

**Secretariat of the Stockholm Convention**  
 11-13, Chemin des Anémones  
 CH – 1219 Châtelaine, Geneva, Switzerland  
 Fax: (+41 22) 797 3460  
 E-mail: [ssc@pops.int](mailto:ssc@pops.int)

**Annex III to decision SC-1/25**

**Format for reporting by each Party that uses DDT for disease vector control pursuant to paragraph 4 of part II of Annex B to the Stockholm Convention on Persistent Organic Pollutants and questionnaire for reporting other information relevant to the evaluation of the continued need for DDT for disease vector control**

COUNTRY: ..... 3-year reporting period: ..... - .....

<b>Name of principal reporting official</b>	
<b>Designation</b>	
<b>Agency name and address</b>	
<b>Fax:</b>	
<b>e-mail</b>	
<b>Signature of official</b>	..... <b>Date:</b> .....

**SECTION A: PRODUCTION AND USE OF DDT**

**A.I. SOURCES OF DDT**

**In-country production**

1. Is DDT produced in your country? YES  NO  (If NO, proceed to question # 4)

2. If yes, please list the DDT production facilities in the country:

No.	Production Facility and location	Total production capacity (kg)	Net output/yr (kg)			Formulation (type & % of active ingredient (a.i.))	% for in-country use
			Yr. 1	Yr. 2	Yr. 3		
i.							
ii.							
iii.							

3. For each of the production facilities listed above, provide the following:

No.	Facility	Export information			
		Destination country(s)	Quantity/yr (kg)		
Yr. 1	Yr. 2		Yr. 3		
i.					
ii.					
iii.					

## Import

4. Has DDT been imported into your country over the reporting period YES  NO . (if NO, proceed to question 6.)

5. If DDT is imported please provide the following:

Country of export	Name of manufacturer	Total net wt of import/yr for the reporting period (kg)			Formulation (type & % of a.i.)
		Yr. 1	Yr. 2	Yr. 3	

### *Stock information*

6. Is DDT repackaged/reformulated in the country? Yes  No  (If NO, please proceed to question 8)

7. If yes, please complete the following table:

Repackaging/reformulation agency	Description of repackaging (boxed, polythene bagged; description of labelling, etc.)	Formulation (type and % of active ingredient)	Intended end-use	Average annual amount (kg).

8. Please provide the following information on the usable stocks of DDT in your country.

Location	Total amount in storage (kg)	Formulation (type and % a.i.)	Managing authority of facility	Conditions of storage (e.g., storage capacity; access)

## A.II. DDT DISPOSAL

9. Do you have obsolete DDT stocks in the country. Yes  No

(If NO, proceed to question 13)

10. If yes, what is the total weight of obsolete DDT stock in the country ( kg):\_\_\_\_\_

Please tick here  if amount is unknown

11. Please provide the following information on facilities where obsolete DDT is stored.

Facility and location	Total capacity of storage (kg)	Total amount (kg) of obsolete pesticides in storage at the facility	Amount (kg) and approximate age (yrs) of obsolete DDT component

12. For each storage facility storing obsolete DDT listed in question 11, please complete the following on the storage conditions.

Facility	Storage conditions					
	Housed or open?	Regular inspection? (yes/no). If yes how often?	Adequate security? (yes/no)	Leaky roof? (yes/no)	DDT leaking into environment (yes/no)	Any other comment on human and environmental safety (e.g., need for repackaging)

13. Which agency is directly responsible for DDT disposal? \_\_\_\_\_

14. Is DDT disposed of in-country? YES  NO

15. If the answer to question 14 is NO, is the obsolete DDT exported? YES  NO . If exported, then indicate destination and intent of export \_\_\_\_\_

16. If obsolete DDT is disposed of in-country, then please complete the following table:

Disposal method (Electro-chemical, incineration, etc)	Facilities using method	Years method has been in use	Disposal capacity/yr (kg)	Amount disposed of/yr (kg.)	Cost of disposal (per kg)





19. Complete the following table for each disease for which DDT is used (Please use additional page as necessary):

Disease	Local areas where DDT is used (e.g., district)	Population size in targeted areas	Disease transmission classification in targeted areas (stable or unstable; if stable, indicate if holo-, hyper-, meso- or hypo-endemic <sup>2</sup> )	Coverage in targeted areas (% of houses)			Annual amount of DDT used (kg)		
				Yr1	Yr2	Yr3	Yr1	Yr2	Yr3

**A.IV. REGULATION AND CONTROL:**

20. Are there laws and/or regulations governing or restricting the purchase and/or use of DDT?

YES  No . If NO, go to question 29

21. If yes, please provide complete the following table (use additional sheets if need).

Title of relevant law or regulation on DDT	Year it was passed or enacted	List the main objectives of the law or regulation (e.g., Prohibits the use of public transport for transporting of DDT)

22. Please indicate the major limitations with the effective enforcement of existing regulations. (Tick all that apply)

Inadequate enforcement resources/facilities	Regulations not well understood by enforcement agencies	Inadequate number of trained personnel	Other (Please specify)

23. Name the overall managing authority for DDT in the country \_\_\_\_\_

24. Which Agency actually authorizes the use of DDT for disease vector control purposes \_\_\_\_\_

<sup>2</sup> See instructions for definitions of endemicity.



31. What is the average cost per house sprayed with DDT (including labour and other operational costs)?

Local currency \_\_\_\_\_ current equivalent in US\$ \_\_\_\_\_

32. How would you rate the general acceptance / refusal of DDT for indoor-application by the households (please tick as appropriate)?

	Provide calculated rate if available	Estimated rate (if calculated rate is not available)				
		Very Low (1)	Low (2)	(3)	High (4)	Very high (5)
Refusal rate						
Re-plastering rate						

33. If the acceptability of indoor application of DDT is low, what are the reasons given for the lack of acceptance by the households (please tick all that apply)?

Inconvenient - moving furniture etc.	Unpleasant smell of DDT	Dislike for white residues on walls	Reluctance to provide access to strangers (sprayers)	Timing of spraying inappropriate	Other (specify)

34. Is DDT application limited to certain house types or households? YES:  NO: . If yes, please indicate the house types targeted (e.g., traditional houses, western-type houses)

\_\_\_\_\_

35. What are the criteria for selecting a geographical area or community for DDT indoor application?

\_\_\_\_\_

\_\_\_\_\_

36. Who determines the timing of DDT application at the local level?

\_\_\_\_\_

37. What factors determine the timing of the DDT application cycle? \_\_\_\_\_

\_\_\_\_\_

38. How many DDT application cycles are there in a year? ONE  TWO  OTHER? \_\_\_\_\_

39. How long does an application cycle take (time – in days or hrs)? \_\_\_\_\_

#### Resistance monitoring

40. What bioassay test procedure(s) is used for detecting DDT resistance? \_\_\_\_\_

\_\_\_\_\_

41. Please complete the following table on vector susceptibility to DDT according to WHO susceptibility test<sup>3</sup>

Disease	Main vector species	Minimum mortality %	Maximum mortality %	Year last tested	Specific geographical areas associated with test, if any

42. Please provide the following information on insecticide residual efficacy according to the WHO standard bioassay test).<sup>4</sup> (If no information is available for the reporting period, please provide the most recent data.)

(a) DDT bioassay results by month: yr1

Month 1 \_\_\_\_\_

Month 4 \_\_\_\_\_

Month 8 \_\_\_\_\_

Month 12 \_\_\_\_\_

(b) DDT bioassay results by month: yr2

Month 1 \_\_\_\_\_

Month 4 \_\_\_\_\_

Month 8 \_\_\_\_\_

Month 12 \_\_\_\_\_

(c) DDT bioassay results by month: yr3

Month 1 \_\_\_\_\_

Month 4 \_\_\_\_\_

Month 8 \_\_\_\_\_

Month 12 \_\_\_\_\_

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<sup>3</sup> Mortality after 24-hour holding period of mosquito specimens exposed to diagnostic concentration (4 per cent DDT) for 1 hour

<sup>4</sup> 24-hour holding period mortality of vector strains of known DDT susceptibility exposed for 1 hour to a DDT-sprayed surface (75 per cent WP)

43. Briefly describe the surveillance mechanism(s) in the country for monitoring DDT resistance (Include the number & location of sentinel sites, if any):

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**SECTION B: DDT ALTERNATIVES (INSECTICIDES, METHODS AND STRATEGIES)**

**B.I.: DDT ALTERNATIVES**

44. Please complete the following tables for DDT alternatives that are in use:

Alternative control category	Method or chemical used	Disease targeted	Annual use (kg of active ingredient or quantity as applicable)	Target population (%)	Acceptability <sup>1</sup>	Annual budget (US\$) (and as % of vector control)	Unit cost <sup>2</sup>
Biological control (e.g., Bacteria)							
Chemical control & related strategies (e.g., insecticide-treated nets, pyrethroids)							
Environmental control (e.g., source reduction)							

<sup>1</sup> End-user refusal rate (Rt) and/or use rate (Ut), indicate as appropriate    <sup>2</sup> As appropriate. e.g., unit cost of ITN or cost of chemical application per house

45. Complete the following table on sources of the alternative options listed above, as applicable:

Alternative category	Biological or chemical product used	Source (Import/local)	Formulations (as applicable)	Annual import (kg active ingredient)	Managing authority
Biological control					
Chemical control					

46. Complete the following table on the disposal relating to the alternative options listed:

Alternative category	Biological or chemical product used	Total national stock (kg or quantity, as applicable)	Total obsolete stock (kg or quantity, as applicable)	Disposal method used	Annual disposal cost (US\$)	Agency responsible for disposal
Biological control						
Chemical control						

47. Provide information on vector resistance to any of the insecticides listed previously as DDT alternatives in use:

Disease	Vector species	Insecticide tolerance or resistance reported in the country (indicate region/area of country associated with report)	Year of first report

48. Complete the table on other DDT alternative(s) that have been considered for use or have been used in the country in the past but are not used any more:

Alternative control category	Method or product used & mode of application	Disease targeted	Reason why the use of the method/product was rejected or stopped
Biological control			
Chemical control & related strategies (e.g., insecticide-treated nets)			
Environmental control			

*Main vector(s) susceptibility to insecticide (DDT alternatives listed)*

49. For the alternative insecticides in use, please indicate for the targeted vector species, the minimum & maximum mortality rates using the standard (discriminating/diagnostic) insecticide concentration.

Disease	Vector species	Insecticide 1: .....		Insecticide 2: .....		Insecticide 3 .....		Insecticide 4: .....		Insecticide 5: .....	
		Mortality		Mortality		Mortality		Mortality		Mortality	
		Min %	Max %	Min %	Max %	Min %	Max %	Min %	Max %	Min %	Max %
Year last tested											

**Insecticide residual efficacy (for each insecticide listed above)** Please provide information on insecticide residual efficacy according to the WHO bioassay test.<sup>5</sup> (If no information is available for the reporting period, please provide the most recent data.)

<sup>5</sup> 24-hour holding period mortality of vector strains of known susceptibility exposed for 1 hour to an insecticide sprayed surface.





54. Please indicate the vector resistance management strategy employed \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

55. Provide any information on the entomology laboratories available in country. For each laboratory, indicate if it is adequately equipped to carry out insect resistance testing and related functions. If not, please indicate (quantify if possible) the limitations faced: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

56. Is there research into the development of locally appropriate alternative intervention options to DDT?

YES  NO

57. If the answer to question 56 is yes, please complete the following table

Type of research on DDT alternative	Institution leading the research	Year initiated

**SECTION C: GENERAL HUMAN AND ENVIRONMENTAL SAFETY ISSUES**

58. Has there been any insecticide incident(s) in relation to vector control with generalised human exposure &/or environmental release of INSECTICIDES in the country (e.g., road accidents, spills)? YES  NO

59. If the answer to question 58 is yes, please complete the following table:

Incident Number	Insecticide (DDT & other)	Details of exposure or environmental release			
		Date	Place	Quantity released	Estimated number of people exposed
I					
ii					
iii					
iv					

60. Please complete the following table for the incidents listed in question 59

Incident number (Question 56)	Details of exposure or environmental release			
	Caused of incident (e.g., Road accident during transport)	Remedial actions taken	Agency undertaking remedial action	Safeguards employed to prevent future incidents
i				
ii				
iii				
iv				

61. Which agency(ies) is(are) responsible for assessing the risks posed by the use of insecticides for public health?

\_\_\_\_\_  
 \_\_\_\_\_

62. Is there a programme to raise awareness among communities and households on safety issues relating to insecticides use in disease vector control? YES  NO

63. If yes, who implements the programme and what public education method(s) are used ?

\_\_\_\_\_

**SECTION D: SYSTEMS STRENGTHENING IN DISEASE VECTOR CONTROL**

64. Targets for relevant trained personnel in the national disease vector control programme (by category):

Category of personnel	Level of training (PhD, Master, Bachelor)	Present staffing levels (number)	Targeted staffing level
Technical (e.g., management, planners)			
Operational (e.g., sprayers, sanitarians, mosquito collectors)			
other (please list)			

65. What is the overall budget for disease vector control \_\_\_\_\_ (US\$). Also indicate as a percentage of the national health budget \_\_\_\_\_

66. What is the budget shortfall (US\$) for vector control (percentage)? Yr.1 \_\_\_\_\_ Yr. 2 \_\_\_\_\_ Yr. 3 \_\_\_\_\_

67. Give the proportion of the annual budget mobilized in-country \_\_\_\_\_ and externally \_\_\_\_\_

68. List the facilities in the country providing training in disease vector control.

Training facility	Specialization (vector biology, entomology etc)	Training level provided (degree or other)	Annual output

69. Provide details on the in-service training programmes available, especially at the regional and district levels:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

70. Do formal mechanisms exist for inter-sectoral collaboration in disease vector control?

YES  NO

If the answer is YES, please complete the following table (tick as appropriate).

Policy on inter-sectoral collaboration	Inter-sectoral committee/board at national level	Inter-sectoral committee at district level	Joint Planning (indicate if national, provincial, district etc.)	Joint implementation of activities

71. If the answer to question 70 is NO, what are the limitations to developing such mechanisms?

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72. What are the limitations to the monitoring and evaluation of vector control programmes?

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and how can they be best overcome?

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73. Please provide any other general information relevant to your country's situation with regards to vector borne diseases and their control:

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## Annex IV to decision SC-1/25

### Possible initial list of information items needed to assist the Conference of the Parties in evaluating the continued need for DDT for disease vector control

<b>A</b>	<b>Production and use of DDT</b> <ol style="list-style-type: none"><li>1. Availability (source, quality)</li><li>2. Efficacy (entomological, including susceptibility and resistance management, epidemiological)</li><li>3. Acceptability</li><li>4. Annual use for disease control (in kg of active ingredient, by disease and target population)</li><li>5. Current stocks, including stock management</li><li>6. Human &amp; environmental safety (risk assessment, regulatory measures)</li><li>7. Cost analysis</li></ol>
<b>B</b>	<b>DDT Alternatives (insecticides, methods &amp; strategies)</b> <b>B 1 Alternative insecticides including biopesticides</b> <ol style="list-style-type: none"><li>1. Alternative insecticide and bio-pesticide options in use</li><li>2. Availability (source, quality)</li><li>3. Efficacy (entomological, including susceptibility &amp; resistance management, epidemiological)</li><li>4. Acceptability</li><li>5. Annual use for disease control (in kg of active ingredient, by type of application, disease and target population)</li><li>6. Current stocks, including stock management</li><li>7. Human &amp; environmental safety (risk assessment, regulatory measures)</li><li>8. Cost analysis</li></ol> <b>B2 Non-chemical methods</b> <ol style="list-style-type: none"><li>1. Non-chemical options in use</li><li>2. Availability (source, quality)</li><li>3. Efficacy (entomological, epidemiological)</li><li>4. Acceptability</li><li>5. Annual use for disease control (by disease and target population)</li><li>6. Current stocks, including stock management</li><li>7. Human &amp; environmental safety (risk assessment, regulatory measures)</li><li>8. Cost analysis</li></ol> <b>B3 Strategies</b> <ol style="list-style-type: none"><li>1. Disease management strategies</li><li>2. Vector control strategies</li><li>3. Resistance management strategies</li></ol>
<b>C</b>	<b>Systems strengthening</b> <ol style="list-style-type: none"><li>1. Institutional set-ups</li><li>2. Capacity for planning, implementing, monitoring and evaluation (financial, human resources, infrastructure)</li><li>3. Capacity for operational research (financial, human resources, infrastructure)</li><li>4. Capacity for insecticide management (regulatory: registration &amp; control)</li><li>5. Targets and needs for reducing reliance on DDT</li></ol>