



**Rotterdam Convention on the Prior
Informed Consent Procedure for
Certain Hazardous Chemicals and
Pesticides in International Trade**

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**Conference of the Parties to the
Rotterdam Convention on the Prior
Informed Consent Procedure for Certain
Hazardous Chemicals and Pesticides in
International Trade**

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Item 5 (b) (ii) of the provisional agenda*

**Matters related to the implementation of the
Convention: listing of chemicals in Annex III
to the Convention: intersessional work on the
process of listing chemicals in Annex III**

**Study of information on the impacts of listing chemicals in
Annex III to the Rotterdam Convention**

Note by the Secretariat

As referred to in the note by the Secretariat on intersessional work on the process of listing chemicals in Annex III to the Rotterdam Convention (UNEP/FAO/RC/COP.8/16), the annex to the present note sets out a study of information on the impacts of listing chemicals in Annex III to the Rotterdam Convention. The present note, including its annex, has not been formally edited.

* UNEP/FAO/RC/COP.8/1.

Annex

Study of information on the impacts of listing chemicals in Annex III to the Rotterdam Convention

I. Overview of the process for listing chemicals in Annex III

1. The Rotterdam Convention on the Prior Informed Consent (PIC) Procedure for Certain Hazardous Chemicals and Pesticides in International Trade aims at protecting human health and the environment through shared responsibility and structured information exchange. The chemicals listed in Annex III to the Convention include pesticides and industrial chemicals that the Conference of the Parties (COP) has decided to subject to the PIC procedure. There are a total of 47 chemicals listed in Annex III as of January 2017; 33 are pesticides (including three severely hazardous pesticide formulations) and 14 are industrial chemicals.
2. The process for listing chemicals in Annex III to the Convention is initiated when Parties have banned or severely restricted a chemical for health or environmental reasons and notified the Secretariat of such a final regulatory action (FRA). One notification from each of two PIC regions triggers consideration of addition of a pesticide or industrial chemical to Annex III to the Convention. Severely hazardous pesticide formulations that produce severe health or environmental effects under conditions of use in developing countries or countries with economies in transition may also be proposed for inclusion in Annex III.
3. Once a chemical is included in Annex III to the Convention by the COP upon recommendation by the Chemical Review Committee (CRC), a decision guidance document (DGD) containing information concerning the chemical and the regulatory decisions to ban or severely restrict the chemical for health or environmental reasons is circulated to all Parties. Thereafter, Parties have nine months to prepare a response concerning the future import of the chemical. The response can consist of either a final decision (to allow import of the chemical, not to allow import, or to allow import subject to specified conditions) or an interim response. Final decisions must be based on a legislative or administrative measure. Decisions by an importing Party must be trade neutral, that is, decisions must apply equally to domestic production for domestic use as well as to imports from any source. The import decisions are circulated and exporting country Parties are obliged under the Convention to take appropriate measures to ensure that exporters within their jurisdiction comply with the decisions.
4. Any decision to ban or severely restrict uses of a chemical, whether before or subsequent to its listing in Annex III to the Convention, is the prerogative of each Party: the bodies of the Convention, namely the COP and CRC, do not have such authority. The Convention promotes the exchange of information on a very broad range of chemicals. It does so through:
 - (a) The requirement for a Party to inform the Secretariat through a notification of each action taken to ban or severely restrict the use of a chemical, this information will be shared with other Parties through the PIC Circular;
 - (b) The requirement for a Party to inform other Parties through the Secretariat, no later than nine months after the date of dispatch of the DGD, of its response concerning the future import of the chemical concerned;
 - (c) The possibility for a Party, which is a developing country or a country with an economy in transition, to inform other Parties through the Secretariat that it is experiencing problems caused by a severely hazardous pesticide formulation under conditions of use in its territory;
 - (d) The requirement for a Party that plans to export a chemical that is banned or severely restricted for use within its territory yet not listed in Annex III, to inform the importing Party that such export will take place, before the first shipment and annually thereafter;
 - (e) The requirement for an exporting Party, when exporting chemicals that are to be used for occupational purposes, to ensure that an up-to-date safety data sheet is sent to the importer; and
 - (f) Labelling requirements for exports of chemicals included in the PIC procedure, as well as for other chemicals that are banned or severely restricted in the exporting country.
5. The Convention promotes information sharing and creates the opportunity for Parties to take informed decisions regarding the future import of chemicals under Article 10. The listing of a chemical in Annex III does not automatically imply that a Party will ban its use in its territory.

II. Background

6. At the time of the adoption of the Convention in 1998, the chemicals listed in Annex III and for which a DGD was developed were 27.
7. In September 2004, at the close of the first meeting of the Conference of the Parties (COP-1), 41 chemicals were listed in Annex III to the convention, including the double listing of monocrotophos and parathion as severely hazardous pesticide formulations and as pesticides. The total number of 41 resulted from the addition of 14 chemicals that were included in Annex III by the interim CRC to the 27 chemicals initially listed in Annex III.
8. As of January 2017, Annex III lists 47 chemicals, with the addition of nine chemicals between 2009 and 2015 and the deletion of entries for the three formulations, monocrotophos and parathion by decision RC-1/3 and methamidophos by decision RC-7/4.
9. Table 1 summarizes the chronology of the listing of chemicals in Annex III between 1998 and January 2017.

Table 1: Chemicals listed in Annex III to the Rotterdam Convention

<p>Chemicals present in Annex III at the time of the adoption of the Convention in 1998 (hereinafter referred to as “initial” chemicals)</p>	<p>27 “initial” chemicals</p> <p>2,4,5-T and its salts and esters, aldrin, captafol, chlordane, chlordimeform, chlorobenzilate, DDT, dieldrin, dinoseb and its salts and esters, 1,2-dibromoethane (EDB), fluoroacetamide, HCH (mixed isomers), heptachlor, hexachlorobenzene, lindane, mercury compounds, pentachlorophenol and its salts and esters, methamidophos (formulations that exceed 600g active ingredient /l), methyl-parathion (at or above 19.5% active ingredient and dusts at or above 1.5% active ingredient), monocrotophos (formulations that exceed 600g active ingredient /l), parathion (all formulations), phosphamidon (formulations that exceed 1000 g active ingredient/l), crocidolite, polybrominated biphenyls (PBB), polychlorinated biphenyls (PCB), polychlorinated terphenyls (PCT) and tris(2,3-dibromopropyl) phosphate.</p>
<p>Chemicals included in Annex III during the interim CRC between 1998-2004 (hereinafter referred to as “interim” chemicals)</p>	<p>14 “interim” chemicals</p> <p>Binapacryl, dinitro-ortho-cresol (DNOC), ethylene dichloride, ethylene oxide, monocrotophos, parathion, toxaphene, dustable powder formulations containing a combination of benomyl at or above 7%, carbofuran at or above 10%, thiram at or above 15% (ex granox-spinox), asbestos (actinolite, anthophyllite, amosite, tremolite), tetraethyl lead and tetramethyl lead.</p> <p>Less 2 formulations: monocrotophos, parathion</p>
<p>Chemicals included in Annex III between 2009-2015 (hereinafter referred to as “new” chemicals)</p>	<p>9 “new” chemicals</p> <p>Alachlor, aldicarb, azinphos-methyl, endosulfan, methamidophos, tributyltin compounds (TBT), commercial octabromodiphenyl ether, commercial pentabromodiphenyl ether, perfluorooctane sulfonic acid and its related chemicals.</p> <p>Less 1 formulation: methamidophos</p>

III. Methodology

10. The objective of this study is to present information on FRA taken by Parties to ban and/or severely restrict chemicals subsequent to their listing in Annex III to the Convention. The information on FRAs to ban or severely restrict a chemical is received by the Secretariat in the form of a notification. This study is a comparison between the number of notifications received for chemicals before and after their inclusion in Annex III.
11. In order to keep the study as precise as possible, it was decided to analyse the trend of submission of notifications before and after listing for “new” chemicals rather than for “initial” and “interim” chemicals that have been regulated by the PIC procedure for more than 10 years.
12. The study presents information on notifications of bans or restrictions for the nine “new” chemicals included in Annex III to the Convention between 2009 and 2015 and then focuses on three

such chemicals: one industrial chemical (commercial pentabromodiphenyl ether) and two pesticides (methamidophos and endosulfan), that are representative of the variety of circumstances that led to their inclusion in Annex III. For the purpose of this study, FRAs notified pursuant to paragraph 1 of Article 5, as made publicly available in parts A and B of appendix I to PIC Circular,¹ were taken into account.

13. The data used for this study is registered in the online database available on the website of the Rotterdam Convention.²

IV. Information on notifications of final regulatory action received before and after its inclusion in Annex III

14. Table 2 below sets out information on notifications of FRA for the nine “new” chemicals included in Annex III between 2009 and 2015.

Table 2: Number of notifications of final regulatory action pertaining to “new” chemicals

Chemical name ¹	Category	Date of dispatch of draft decision guidance document	Number of notifications received BEFORE listing the chemical in Annex III and published in PIC Circular	Number of notifications received AFTER listing the chemical in Annex III and published in PIC Circular
Methamidophos	Pesticide	15-09-2015	14	1
Azinphos-methyl	Pesticide	10-08-2013	4	1
Commercial octabromodiphenyl ether including...	Industrial	10-08-2013	2	0
Commercial pentabromodiphenyl ether including...	Industrial	10-08-2013	5	1
Perfluorooctane sulfonic acid, perfluorooctane sulfonates, perfluorooctane sulphonamides and perfluorooctane sulfonyls including...	Industrial	10-08-2013	3	1
Alachlor	Pesticide	24-10-2011	4	0
Aldicarb	Pesticide	24-10-2011	4	4
Endosulfan	Pesticide	24-10-2011	18	10
All tributyltin compounds	Pesticide	1-02-2009	3	1

Note 1: Listed in an order of the date of dispatch of draft decision guidance document.

15. The number of notifications of FRA received for each of the “new” chemicals before and after their listing in Annex III to the Convention is shown in figure 1 below, where chemicals are

¹ Through the publication of the PIC Circular every six months, the Secretariat circulates information to Parties in accordance with Articles 4, 5, 6, 7, 10, 11, 13 and 14 of the Convention. Appendix I of PIC Circular sets out synopsis of notifications of FRA received since the last PIC Circular, including in part A, those that have been verified to contain the information requirements of Annex I to the Convention, and in part B, those that have been verified to not contain the information requirements of Annex I. Publications of PIC Circulars are available at: <http://www.pic.int/Implementation/PICCircular/tabid/1168/language/en-US/Default.aspx>.

² The online database is available at: <http://www.pic.int/Procedures/NotificationsofFinalRegulatoryActions/Database/tabid/1368/language/en-US/Default.aspx>.

represented from the most recent inclusion of methamidophos in 2015, to the less recent inclusion of tributyltin compounds in 2009.

16. Figure 1 shows an evident distinction between the “before” and the “after” period in terms of the number of notifications. This difference varies from chemical to chemical. The graphic does not report the distinction between notifications for total bans or for severe restrictions which still allow for some limited uses of the chemicals.

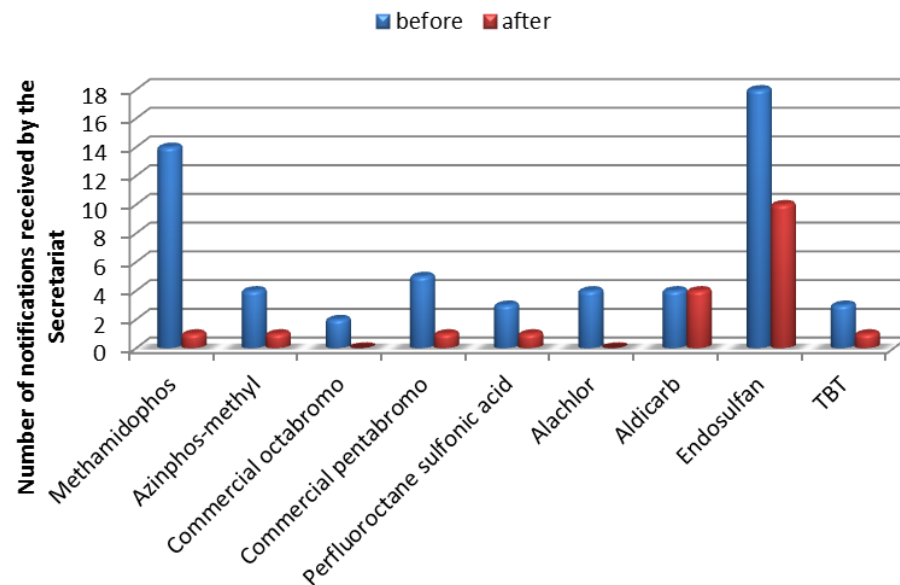


Figure 1: Comparison of number of notifications of final regulatory action received before and after listing the nine “new” chemicals in Annex III

A. Methamidophos

17. The pesticide methamidophos shows the highest difference between the bans or restrictions made by Parties before and after its listing in Annex III to the Convention. Only one notification of FRA was received for methamidophos after its inclusion in Annex III in 2015 while 14 notifications were received before its listing as a pesticide (see figure 2).

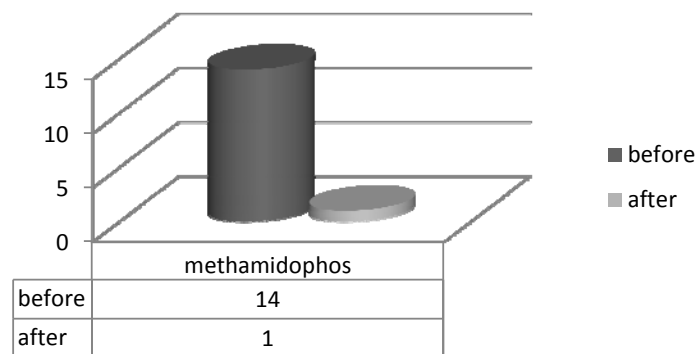


Figure 2: Number of notifications of final regulatory action received for methamidophos before and after its listing in Annex III

18. Since 1998, methamidophos was listed in Annex III to the Convention as severely hazardous pesticide formulation, soluble liquid formulations of the substance that exceed 600 g active ingredient/l. The CRC at its ninth meeting reviewed notifications of FRA for methamidophos as a pesticide from Brazil and the European Union and in accordance with Articles 5 and 7 of the Convention, a draft DGD and a recommendation from the CRC were sent to the COP for its consideration for inclusion in Annex III. In 2015, the COP decided on the listing of methamidophos under the pesticide category and on the removal of the formulation from Annex III.

B. Endosulfan

19. Endosulfan was listed in Annex III in 2011. The Secretariat received a relatively high number of notifications before and after its listing (see figure 3).

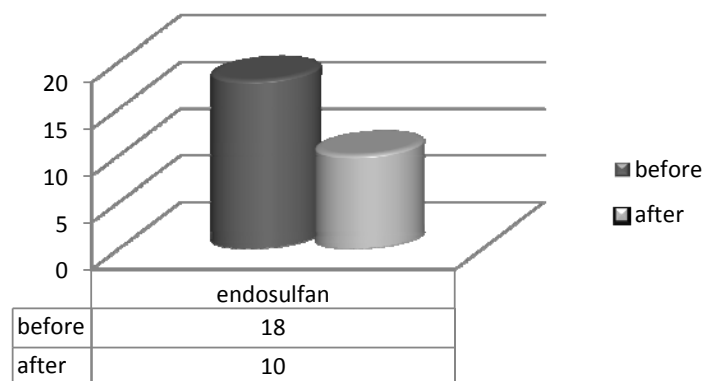


Figure 3: Number of notifications of final regulatory action received for endosulfan before and after its listing in Annex III

20. Endosulfan was considered for listing in Annex III to the Convention for the first time at COP-4 in 2008. Upon failing to reach consensus on its inclusion, several tasks were requested by COP-4 as intersessional work in order to clarify a number of outstanding issues and to report back to COP-5 in 2011.

21. Moreover, on this occasion, several Parties, through a signed declaration, requested the COP and the Secretariat to establish a mechanism for a voluntary procedure to facilitate information exchange on endosulfan and other chemicals recommended for listing in Annex III to the Convention by the CRC but for which the COP had yet to take a final decision.

22. For this purpose, appendix VI has been added to the PIC Circular since PIC Circular XXVII published in June 2008. The appendix provides reference to the information that had been provided by Parties on national decisions concerning the management of such chemicals and a list of decisions on the future import of those chemicals. Details of these decisions are circulated for information only and do not constitute part of the legally binding PIC procedure.

23. Endosulfan was listed in Annex III at COP-5 in 2011, after having been discussed at CRC-2 in 2006, CRC-3 in 2007, CRC-5 in 2009 and CRC-6 in 2010.

24. It should also be noted that endosulfan was listed in Annex A to the Stockholm Convention on Persistent Organic Pollutants with specific exemptions at the Stockholm Convention COP-5 also held in 2011.

C. Commercial pentabromodiphenyl ether

25. Commercial pentabromodiphenyl ether, including tetrabromodiphenyl ether and pentabromodiphenyl ether was listed in Annex III to the Rotterdam under industrial chemicals category in 2013. The number of notifications of FRA submitted was limited and was in any case higher before than after the listing (see figure 4).

26. It should also be noted that commercial pentabromodiphenyl ether was listed in Annex A to the Stockholm Convention with specific exemptions at COP-4 in 2009, which was four years before the listing in Annex III to the Rotterdam Convention.

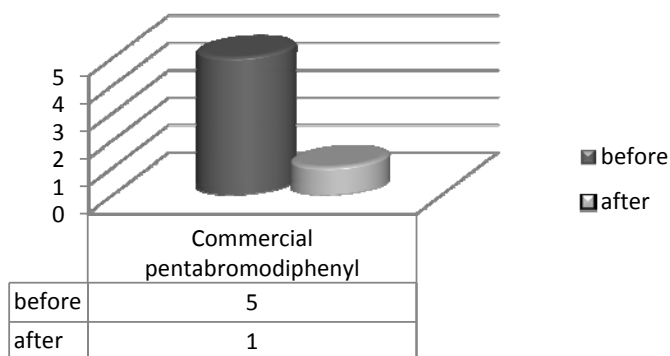


Figure 4: Number of notifications of final regulatory action received for commercial pentabromodiphenyl ether before and after its listing in Annex III

V. Conclusions

27. The data analysed and presented in the section above showed that for the nine “new” chemicals that were listed in Annex III to the Convention between 2009 and 2015, the number of notifications of FRAs was higher prior to its listing. For the chemicals of which notifications of FRAs have been received subsequent to their listing, it was not possible to determine from the information available whether the listing in itself had a causal effect on the number of FRAs adopted and notified.

28. Several additional elements should be taken into account when basing a study on the number of FRAs notified to the Secretariat. It is important, for instance, to take into consideration that Parties may have banned or restricted chemicals but they may not have submitted notifications of such FRAs to the Secretariat. Reasons for this could be due to the turnover of designated national authorities, difficulty in accomplishing this task and other bureaucratic or administrative constraints.

29. In addition, the adoption of an FRA has to follow a long legal and administrative process. This implies a robust technical evaluation process of the chemical in question, including compilation of information on its marketing, use, related incidents and risk assessment under local conditions. This can be a major challenge in developing countries where such a process may require additional resources and involve the approval of several ministries, e.g. agriculture, health and/or environment ministries, preventing further action on the chemical in question.

30. A further key point is that management of industrial chemicals in developing countries is commonly under the jurisdiction of ministries of environment which are relatively new establishments compared to ministries of agriculture. This also supports the fact that legal provisions and regulatory control mechanisms for industrial chemicals compared to pesticides are less developed, especially in those developing countries.

31. Another element to consider is that chemicals that fall within the scope of the Stockholm Convention and whose production and use must be eliminated (if listed in Annex A) or restricted (if listed in Annex B) under that Convention are more likely to result in a regulatory measure for these chemicals to be banned or severely restricted. As a result, Parties to the Rotterdam Convention would be obliged under Article 5 to submit notifications of FRAs for these chemicals. Some of the “new” chemicals falling within the scope of the Stockholm Convention are commercial pentabromodiphenyl ether, commercial octabromodiphenyl ether, perfluorooctane sulfonic acid and its related chemicals, and endosulfan.