

### Background Information

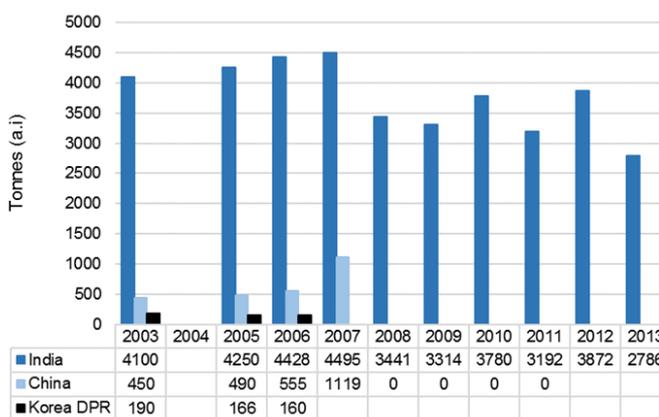
DDT is listed in Annex B to the Stockholm Convention with acceptable purpose for production and use for disease vector control and specific exemption for production and use as intermediate in the production of dicofol. Each Party that produces and/or uses DDT shall restrict such production and/or use for disease vector control in accordance with the World Health Organization recommendations and guidelines on the use of DDT and when locally safe, effective and affordable alternatives are not available to the Party in question.

### Measures to reduce and/or eliminate releases

Legal measures governing the production, import, export and use of DDT are in place in the majority of Parties. Out of that number, roughly half of them have developed or amended these measures since 2001, indicating major progress due to the Convention. Nevertheless, there are indications that the implementation of legal measures, through pesticide life-cycle management, remains a major challenge in vector-borne disease endemic countries. Global use of DDT has declined by 35% from 5034 tonnes a.i. per year in 2003-2009 to 3268 tonnes a.i. per year in 2010-2014. India has been the main user of DDT, responsible for 83% of global use in 2000-2014; in recent years, India has been responsible for an estimated 96-97% of global use. India uses DDT for control of malaria and leishmaniasis.

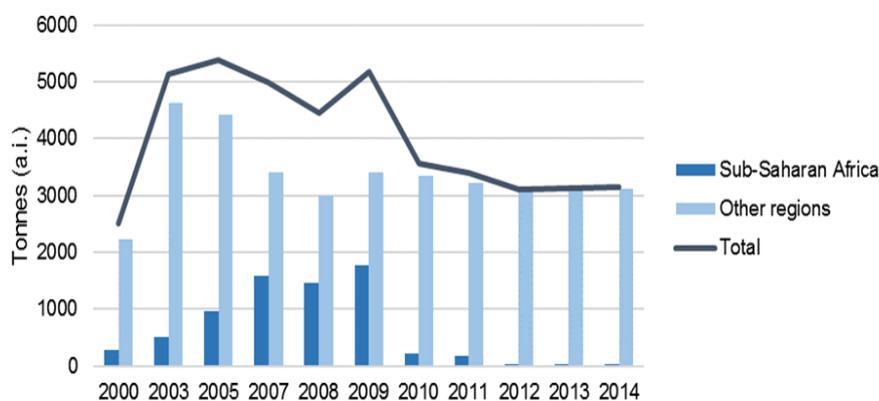
Global production of DDT declined by 29%, from 4768 tonnes of active ingredient (a.i.) per year in 2003-2008, to 3389 tonnes a.i. per year in 2009-2013. India is the only known remaining producer.

*Estimated global production of DDT (excluding DDT used as intermediate in the production of Dicofol, and use as additive in anti-fouling paints). Blank spaces indicate missing data (UNEP/POPS/COP.8/INF/40)*



The use of DDT for malaria control in Sub-Saharan Africa has been relatively minor as compared to the use in India. Especially, in recent years, the use in Africa is estimated to be less than 100 tonnes a.i. per year; a small fraction of the global use. A number of African countries have alternately discontinued and resumed use of DDT as a result of several contemporary developments, notably the up-scaling of vector control interventions, which included indoor residual spraying with DDT and the development and monitoring of insecticide resistance in malaria vectors. However, insecticide resistance in malaria vectors is sweeping across Africa. This is reducing the choice of readily available insecticidal options for malaria vector control.

*Historical trend in the use of DDT (UNEP/POPS/COP.8/INF/40)*



increase from 2001-2005, but imports reduced to much lower levels in recent years. Data on import and export do not tally and require more consistent reporting by Parties. A number of countries reported export of DDT for final disposal; destinations were mostly countries in Europe. Reporting on import for final disposal has been poor.

Regarding the import and export of DDT, global import for use in disease vector control shows an

# Changes in concentrations measured in the environment and in human populations

Measureable concentrations of DDT are detected in air and human matrices worldwide. The trend information available from regions with long term monitoring data in these and other media are showing

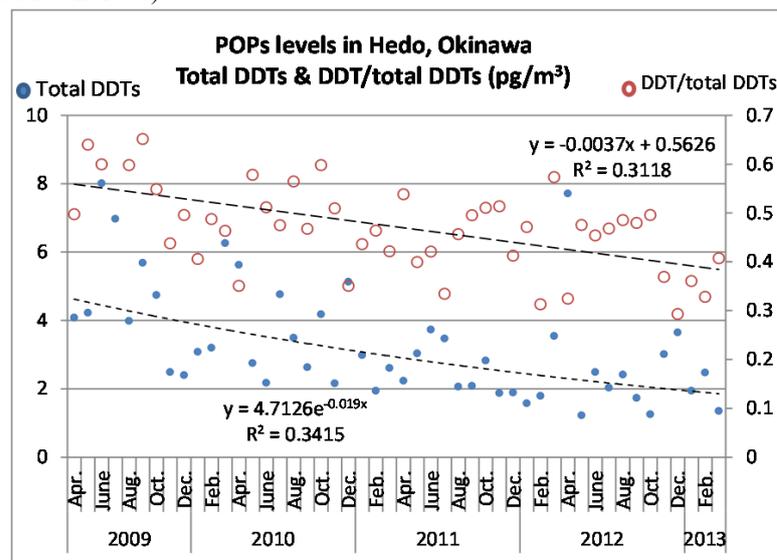
## DDT in human milk and blood

For human milk, the highest levels were found in tropical and sub-tropical countries: Côte d'Ivoire, Ethiopia, Hong Kong SAR, Uganda, Mali, Mauritius, Haiti, Solomon Islands, Sudan and Tajikistan. This distribution reflects its use in relation to the occurrence and prevention of malaria in these regions. It is important to note a significant contribution of the DDE metabolite to the sum DDT, which suggests legacy contamination through past exposure.

For human blood sampled in the Arctic, results of recent biomonitoring studies suggest that the concentrations of DDE are two- to ten- fold higher among Inuit living in eastern parts of the Canadian Arctic (Baffin and Nunavik) and

Greenland compared to other populations in the Arctic (Norway, Sweden, Iceland, Dene-Métis from Inuvik Canada).

In ambient air, for example, at Cape Hedo (Okinawa Island), which is background site in Japan, a clear decreasing trend of both total DDTs (sum of six isomers, including p,p'- and o,p'-DDTs, DDEs, DDDs) and the ratios of DDT (sum of p,p'- and o,p'-DDT) versus total DDTs was observed during 2009-2013. This reflects the decrease of new DDT input to the region post entry into force of the Stockholm Convention (UNEP/POPS/COP.8/INF/38).



## Conclusions and recommendations of the effectiveness evaluation committee

In several African countries, recent capacity building on entomological surveillance and insecticide susceptibility monitoring has prompted a timely policy change away from the use of DDT. The effectiveness of the Stockholm Convention towards achieving its global objectives regarding DDT could be further improved by focusing efforts to reduce the current high levels of DDT use in some countries. Indications of increased use of DDT for leishmaniasis control and the spread of emerging vector borne health threats point to the need for adoption of more integrated vector control methods and more education about the benefits for local communities of reducing reliance on DDT, and in developing safer, technically feasible, accessible, more effective and affordable non-POPs alternatives.

**Recommendation:** Further capacity building is needed to improve entomological surveillance, evidence-based decision making and fine-tuned targeting of vector control interventions that would reduce the use of DDT. Integrated vector management which will lead to substantial benefits for the global environment should be encouraged.

The road map for the development of alternatives to DDT (the key elements of which were endorsed by the Conference of the Parties at its seventh meeting) provides the required framework for using safer alternatives than continued use of DDT.

**Recommendation:** Further support is needed for the development of safer, effective and affordable alternatives to DDT and for strengthening the capacity of Parties still relying on DDT to commence a sustainable transition away from DDT.

Data on import and export of DDT contained in national reports do not match. Data on import for final disposal are especially poor.

**Recommendation:** Existing reporting mechanisms for DDT should be improved so that the data can be used for the specific requirements for effectiveness evaluation under the Convention, particularly the mechanism for reporting on export and import of DDT for use in disease vector control or for final disposal. In addition, collaboration with the Basel Convention's reporting system related to imports and exports for final disposal and the WHO's reporting system on public health pesticides in relation to DDT should be explored.

For more information, please see documents [UNEP/POPS/COP.8/22/Add.1](#) and [UNEP/POPS/COP.8/INF/40](#)