



Global Call to Ban Chlorpyrifos

[Source: DTE](#)

Why in News?

The **Conference of the Parties (COP)** to the [Basel](#), [Rotterdam](#), and [Stockholm](#) (BRS) **Conventions** in **Geneva** proposed the banning of toxic pesticide **Chlorpyrifos** by listing it under **Annex A of Stockholm Convention (complete global ban without exemptions)**.

- However, **India opposed the move**, citing the **absence of viable alternatives** and the potential threat to **food security**.

What is Chlorpyrifos?

- **About:** Chlorpyrifos is an **organophosphate (formed by esterifying phosphoric acid with alcohol) insecticide** used in **agriculture, public health** to control pests like **termites, mosquitoes, and roundworms**.
 - It works by **inhibiting an acetylcholinesterase enzyme essential for nerve function**, affecting both **target pests** and **non-target species, including humans**.
- **Health Impact:** Exposure (via skin, inhalation, or ingestion) can cause **headache, nausea, dizziness, muscle cramps**, and in severe cases, **paralysis and breathing difficulty**.
 - It forms a **toxic byproduct (chlorpyrifos oxon)** in the body, which causes these effects.
- **Environmental impact:** It **persists in soil for weeks to years, breaks down slowly in acidic conditions**, and may **contaminate water bodies through erosion**.
 - It is **highly toxic to birds** (e.g., robins, mallards), **fish, bees, and earthworms**, and can **bioaccumulate in the food chain**.
- **Usage in India:**
 - Chlorpyrifos, a **widely used pesticide in India (9.4% of total insecticide consumption in 2016-17)** has been registered under the **Insecticides Act since 1977**. (IPEN Report)
 - Classified as **moderately hazardous** by [WHO](#) and a **possible carcinogen** by [EPA](#), its residues are found in produce, **water, blood, and breast milk**.

What is the Stockholm Convention?

- **About:** The [Stockholm Convention](#) on **Persistent Organic Pollutants (POPs)** is a global treaty **adopted in 2001** and **came into force in 2004**. Its main goal is to **protect human health and the environment** from (POPs).
- **Key Features:**
 - **Annex A:** Elimination of listed chemicals
 - **Eg: Aldrin, Chlordane, Dieldrin, Endrin, Heptachlor, Hexachlorobenzene, Mirex, Polychlorinated biphenyls**
 - **Annex B:** Restriction of listed chemicals
 - **Annex C:** Reduction of unintentional release of listed chemicals
- **Financial Mechanism:** The [Global Environmental Facility \(GEF\)](#) serves as the **designated interim financial mechanism** for the **Stockholm Convention**, supporting developing countries

in implementing its obligations.

- **India and Stockholm Convention:** India ratified the **Stockholm Convention in 2006**. To regulate Persistent Organic Pollutants (POPs), the **MoEFCC** notified the '**Regulation of Persistent Organic Pollutants Rules, 2018**' under the **Environment (Protection) Act, 1986**.

What are POPs?

- **About:** **Persistent Organic Pollutants (POPs)** are **toxic, carbon-based chemical substances** that **persist in the environment for long periods**, resist degradation, and **accumulate in living organisms**.
- **Health & Environmental Impacts:** Can cause **cancer, immune suppression, neurotoxicity, reproductive disorders**, and **endocrine disruption** and its exposure leads to **both acute and chronic effects**, even across generations.
 - **Bioaccumulation:** POPs **accumulate in the fatty tissues** of living organisms over time.
 - **Biomagnification:** Their **concentration increases as they move up the food chain**, affecting top predators and humans.
- **Examples:**
 - **Endosulfan:** Banned in many countries; known for **endocrine disruption**.
 - **DDT:** Banned for agriculture in India but still used for **vector control** (e.g., **mosquito fumigation in malaria-prone areas**).
 - Others include **Aldrin, Dieldrin, PCBs, and Toxaphene**.

Click Here to Read: [Basel Convention and Rotterdam Convention](#)

UPSC Civil Services Examination Previous Year's Question (PYQs)

Q. Consider the following pairs: (2016)

	Terms sometimes seen in the news	Their origin
1.	Annex-I Countries	Cartagena Protocol
2.	Certified Emissions Reductions	Nagoya Protocol
3.	Clean Development Mechanism	Kyoto Protocol

Which of the pairs given above is/are correctly matched?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 3 only
- (d) 1, 2 and 3

Ans: (c)

Q. Consider the following statements: (2016)

1. The Sustainable Development Goals were first proposed in 1972 by a global think tank called the 'Club of Rome'.
2. The Sustainable Development Goals have to be achieved by 2030.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Ans: (b)

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