

**Assessment of Lindane in Mexico:  
*An effort towards risk reduction  
and global elimination***

**Mario Yarto, PhD  
Environmental consultant**

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# ***Background***



- Sound Management of Chemicals (SMOC) initiative of the North American Commission for Environmental Cooperation.
- Cooperation scheme to address priority chemicals of mutual concern aimed at management and control actions.
- A feature of this work is the development of North American Regional Action Plans (NARAPs) for specific substances.
- Additional work on the monitoring and assessment of pathways of exposure.
- This collaboration has resulted in information sharing on technical, scientific and policy issues.
- It has helped Mexico build its capacity for the sound management of chemicals.



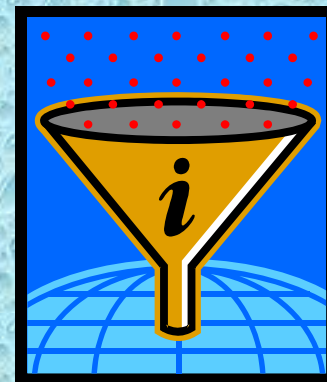
# Background

- Lindane is a pesticide which was used in agriculture and as a human and animal drug.
- Its use in Mexico has led to its accumulation in humans and other organisms.
- Under the CEC framework, Mexico committed to develop a national assessment for lindane.
- This work provided a summary of its use in Mexico, and availability and cost of alternatives.
- Compilation of the data was done using a coordinated and collaborative effort with multi-stakeholder participation.



# *The Problem*

- Insufficient information at the National level
- Scattered data on environmental media and humans indicated exposure to lindane and other HCH isomers
- Lack of support to establish regulatory and voluntary actions to phase-out its use.





# *The Approach*

- The Mexican Government decided to conduct an assessment as the first step in the decision-making process.
- Multi-stakeholder committee established to evaluate the feasibility to restrict or eliminate the use of lindane in Mexico
- Participants:
  - Public sector : Ministries of Health, Environment, Economy, Customs and Agriculture.
  - Industry associations
  - Environmental NGOs
  - Academia and research groups
- In kind contribution obtained through collaboration with Canada and the US
- This also contributed to the implementation of the North American Regional Action Plan on Lindane and other HCH Isomers.

# ***National assessment***



- Objectives:
  - to obtain current information on production, import and export of lindane in Mexico
  - identify lindane-containing products, including commercial names, prices, and current uses
  - review existing regulation and control instruments, and
  - identify of feasible and cost effective substitutes and alternatives for lindane





# ***National assessment***

- **Method**

- consultations with relevant public and private organizations were held to obtain information
- estimates of quantities of imports, exports and production were made
- a field survey in 5 states collected data on actual prices and uses of lindane containing products
- an analysis of the potential legal basis for elimination and
- ways to proceed with elimination assessed





# *Implementation (1)*

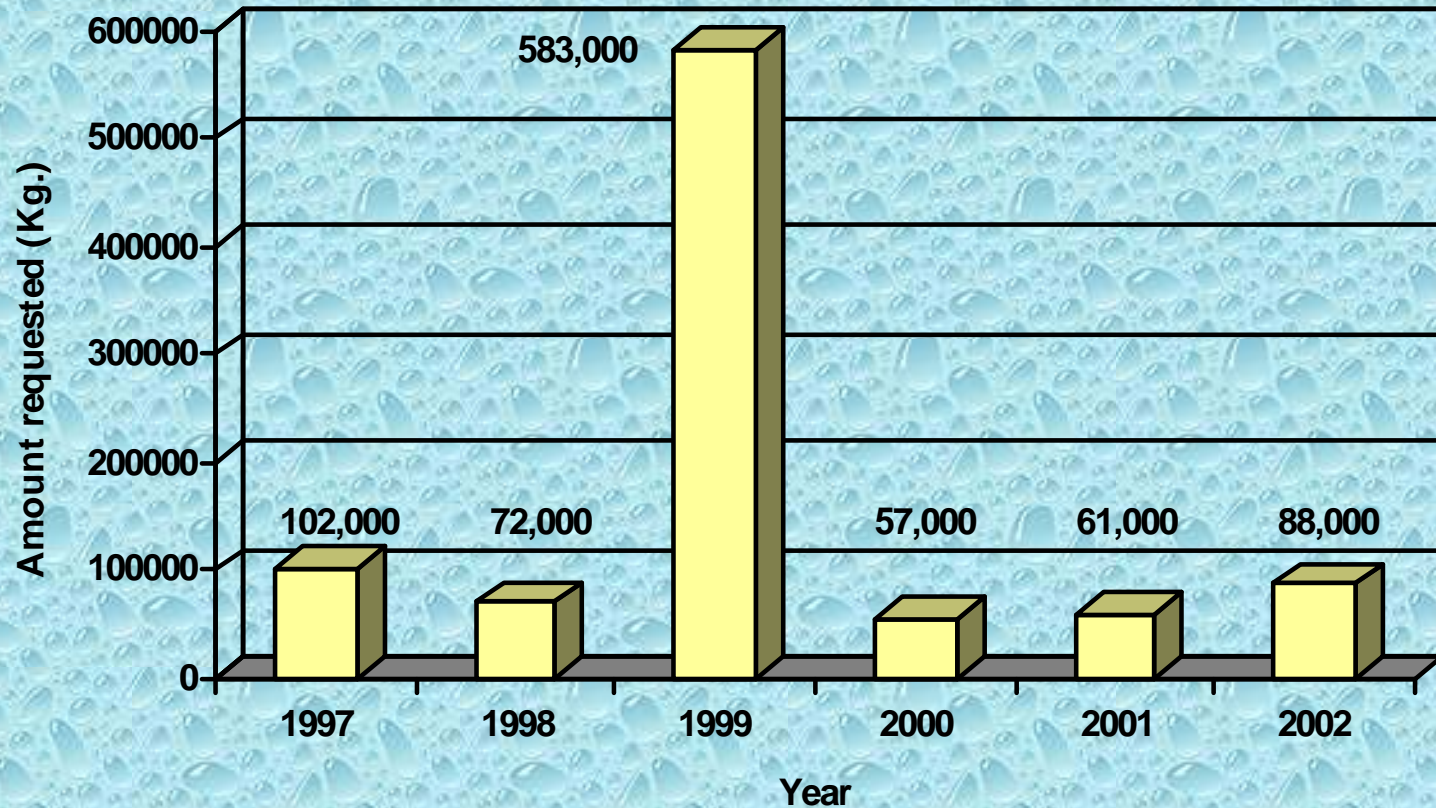
- Information gathered from the pesticide registration agency confirmed all authorized uses (e.g. veterinary, agricultural, pharmaceutical).
- Ministry of Health provided data concerning registrations and companies to which they were issued.
- Initially, stakeholders expressed their concerns and doubts on the feasibility of the eventual elimination or restriction on the use of lindane.
  - the Ministry of Health informed that it would need to give notice of any revocation.
  - lack of information on cost effective alternatives



# *Implementation (2)*

- ***Data gaps, information needs , challenges:***
  - poor data on import/export and historic production
  - difficulty in information sharing between stakeholders
  - lack of resources for a study of national scope
  - different problems and different positions among stakeholders
  - difficulty in focusing the debate on alternatives
  - the need to evaluate toxicity, effectiveness and possible resistance of chemical alternatives for agricultural and pharmaceutical uses, and
  - the need to evaluate other alternatives (integrated pest management, organic agriculture, natural methods, etc.)

## Quantity of Lindane authorized for import in Mexico, 1997-2002\*



\* The amounts reflect the quantities requested for authorization. Actual importation is likely lower. There was one unusually high request for importation in 1999.


# *Implementation (3)*

- To address some of the data gaps a survey was conducted
- Insufficient information on imports and other data made it difficult to estimate the extent of consumption accurately
- Survey showed that potential substitutes for most of the uses of lindane were readily available.
- Survey results shared with committee
- Members agreed to share additional information they had available.
- Search in several databases and scientific papers.
- All this provided the information needed to draft the supporting documentation for decision making.



# *Achievements (1)*



- Effective and coordinated effort with active participation from all stakeholders:  ***National action plan***
- ***Improved collaboration*** between government and industry on other chemical management issues.
- Evidence assembled in the profile helped ***government decisions*** to revoke the registration for all uses of lindane, including a phase-out for pharmaceutical uses.
- Mexico ***nominated lindane and related compounds*** as candidates for substances to be controlled under the Stockholm Convention on POPs.

# *Achievements (2)*



- The methodology used to collect data in Mexico was adapted and included in the *Handbook to support the effective participation in the work of the POPs Review Committee (POPRC) of the Stockholm Convention*.
- Lindane, alfa and beta HCH are some of the new chemicals added to this Convention, promoting global elimination

# ***Achievements (3)***



- ***Establishment of initiatives aimed at:***
  - promoting research on chemicals of concern, including monitoring and assessment
  - awareness raising and outreach campaigns to promote alternatives and substitutes
  - capacity building through the development of effective partnerships, and
  - recommendations for policy and decision making



# ***Further work***

- Implementation of the phase out action plan for pharmaceutical uses of lindane
- Control on the use of remaining stocks (imports stopped in 2005)
- Assessment of alternatives for public health applications
- Monitoring and biomonitoring work
- Activities on outreach, communication and awareness are still ongoing, particularly in rural areas
- POPs NIP update to follow

Thank you for your attention!

[marioyarto@gmail.com](mailto:marioyarto@gmail.com)