Rotterdam Convention Stockholm Convention

Cutting Costs while Introducing Safer Chemicals: The Case of DDT

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DDT

- Best known of the POPs
- Convention allows DDT for disease vector control in accordance with WHO Guidelines (e.g., interior wall application only)
- 19 country Parties have registered under the Convention to reserve the right to use DDT for disease vector control, but not all of them use it

Malaria

- Major public health challenge:
  - 781,000 deaths in 2009
  - 225 million cases (78% in Africa) per year
- International funding commitments in 2010 for malaria control US$ 1.8 billion (mainly for disease control)
- Malaria vector control – a key component of reducing disease burden
- Most popular vector control interventions are chemically based:
  - Indoor residual spraying
  - Insecticide treated nets

Challenges in Vector Control

- Limited chemical options to manage increasing vector resistance:
  - 12 pesticides (including DDT) recommended by WHO, but only from four chemical classes
  - Resistance against pyrethroids and carbamates, the main alternative insecticides to DDT, has caused some countries to revert to DDT for indoor residual spraying
  - Resistance to DDT, and in many cases, with cross-resistance to pyrethroids

Other Challenges

- **Environment:**
  - Effects of climate change on the distribution and coverage of vectors expanding
- **Social/economic:**
  - Rapid migration to urban settings associated with unplanned urbanization - favorable for vector breeding
- **Health/economic:**
  - Accessibility to good health care facilities including effective medicines very limited

Difficulties in Assessing Full Socio-Economic Costs

- Cost estimates of control options were often not readily comparable or could not be adjusted to different contexts
  - Most common shortcomings were the omission of certain costs
- Need capacity to support evidence-based decision making in disease vector control
  - Communities need information on alternatives to DDT including comprehensive and integrated approaches for effective malaria control

Difficulties in Managing PHPs

- Resources for registration and sound management of public health pesticides (PHPs) remain inadequate
- National policies often do not facilitate efficient management of PHPs
- Agriculture pesticide management is significantly better in most countries but PHPs are not often included
- Inter-sectoral coordination is a key to sound management of PHPs
  - A main stakeholder is the health sector but pesticide regulatory mechanisms are often established in the agriculture sector

Barriers in Introducing Safer PHPs

- Development and introduction of new chemicals into the markets of disease endemic countries:
  - Costs: ~ $200 million
  - Timeline: 8-10 years
  - Long and resource intensive process: Industry to test safety of the chemical, prepare a chemical registration application independently for each country, and each country to review/accept it
- For the past 20 years, no new **public health pesticides** (PHPs) have been introduced in disease endemic countries

Successful initiatives

- OECD's Environment, Health and Safety Programme:
  - Harmonizing test methods and data quality: Mutual Acceptance Data system & standardized industry applications and review reports for pesticides registration
  - Work-sharing of chemical safety testing and assessments: Done cooperatively, having one country taking the lead
  - Helped governments and industry save about EUR 150 million each year[1]
- Possible reformulation of agricultural pesticides for use as PHPs is being explored

[1] Cutting Costs in Chemicals Management- How OECD Helps Governments and Industry, OECD Publication, 2010

Opportunities under the Global Alliance

- **The Global Alliance for the development and deployment of alternatives to DDT:**
  - ... an initiative not only driven by the demand to **reduce reliance on DDT** but also to **complement solutions for effective malaria vector control** ...
  - **Objectives:**

Strengthen the knowledge available to inform policy formulation and decision making	Overcome the complexity and cost of deploying alternatives to DDT	Make available new alternative vector control chemicals	Develop non-chemical products and approaches for vector control

Work-sharing for PHPs under the Global Alliance

- Main objectives:
  - Sharing the burden of testing and assessing PHPs
  - Harmonizing registration system for PHPs (e.g. common industry dossiers and review reports)
  - Build enforcement capacity for sound management of PHPs by exchanging technical and policy information
  - Support and advocacy for developing tools and guidance for registration of new chemical products and devices

Test case - outcomes

- Regional and sub-regional networks on registration of PHPs to support national programmes
- Tools and protocols for work-sharing, standardized registration applications and evaluation reports
- Increased capacity and skill for regulation of PHPs
- Lessons and evidence on work-sharing on PHPs in disease endemic countries

NEXT STEPS

- Promote and facilitate the establishment of similar groupings for work-sharing on PHPs
- Encourage expansion of established groups to other countries
- Support and follow-up on:
  - Sustainable transition from DDT to alternatives
  - Sound life-cycle management of PHPs in disease endemic countries

CONCLUSION

- Work-sharing and harmonization of standards for assessment/ registration offer cost-effective solutions to overcome barriers in the sound management of PHPs
- Governments and other stakeholders are encouraged to join the global alliance to identify alternatives to DDT for disease control;
- Working together we can reduce reliance on DDT while promoting the roll back of malaria worldwide

THANK YOU