WHO position on DDT use in disease vector control under the Stockholm Convention on persistent organic pollutants

WHO proposed and supports the continued use of DDT for disease vector control, under the Stockholm Convention on Persistent Organic Pollutants (POPs). The reason for the Organization’s position is summed up by the recommendations of a WHO Malaria Expert Committee meeting in 1998:

It is anticipated that for some time to come there will continue to be a role for DDT in combating malaria, particularly in the poorest endemic countries. Restrictions on DDT for public health use contained in a future Persistent Organic Pollutants Convention should therefore be accompanied by technical and financial mechanisms to ensure that effective malaria control is maintained, to at least the same level, through vector control methods that depend less on pesticides generally, and on DDT in particular.

WHO urges that a premature shift to less effective or more costly alternatives to DDT, without adequate preparation of the capacity of Member States (human, technical, financial), will not only be unsustainable but also have a negative impact on disease burden in the endemic countries.

Stockholm Convention on POPs and DDT

The Stockholm Convention on POPs permits the production and use of DDT strictly for disease vector control, under WHO recommendations and guidelines. The Convention states interalia, that:

- The production and use of DDT shall be eliminated except for Parties [to the Conference] that have notified the Secretariat of their intention to produce and/or use it.
- 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.
- Commencing at its first meeting, and at least every three years thereafter, the Conference of the Parties shall, in consultation with the World Health Organization, evaluate the continued need for DDT for disease vector control on the basis of available scientific, technical, environmental and economic information [...].

The Convention recognizes three important facts:

i) The urgent and immediate need of many of the malaria-endemic countries to maintain their reliance on the use of DDT for indoor residual spraying to control insect vectors, particularly malaria vectors, until viable, effective and affordable alternatives are found. This will ensure that the Convention, when it comes into force, does not result in sharp increases in malaria epidemics and deaths.

ii) A need to accelerate research and development of safe, effective and affordable alternatives to DDT, as well as the adoption and use of such alternatives, as a medium-term goal towards the improvement of the vector control capacity of malaria-endemic countries.

iii) A longer-term goal of reducing the over-reliance of vector control programmes on pesticides in general, to protect both the ecosystem and human health from the negative impacts of POP pesticides.

1 The Stockholm Convention will come into force in May 2004.
2 WHO recommends indoor residual spraying of DDT for malaria vector control (Additional information may be obtained from the associated brochure entitled Frequently asked questions on DDT use for disease vector control and from www.rbm.who.int).
3 There are about 300–500 million clinical cases and about 1 million deaths annually. The vast majority occur in Africa, south of the Sahara.
WHO has developed an Action Plan to facilitate the achievement of the medium- and longer-term goals. A basic principle of the Action Plan is that any deadline set in the Stockholm Convention is not linked to the phasing-out of DDT, but rather to the time at which the financial, technical, and administrative mechanisms are available to ensure sustainable transition from DDT to an integrated use of alternatives. Such transition should not increase disease transmission risk, nor should it be at the expense of financial resources earmarked for other priority public health issues.

The Action Plan envisages a global mechanism for the provision of support in:

i) Country assessments – including national inventories of current use and regulatory status.
ii) Safe management of DDT stockpiles.
iii) Disease vector control/management needs assessments.
iv) Monitoring – including the development of a global reporting and monitoring system on DDT use and human exposure (this will allow the evolution of realistic strategies to control usage and minimize exposures).
v) Research on the development of locally viable integrated pest and vector management strategies, as well as the development, testing and/or implementation of sustainable, environmentally sound and cost-effective alternative strategies to DDT.
vi) Strengthening country capacity for effective vector control.

vii) Advocacy – to furnish appropriate information to the health sector for balanced decision-making based on “informed consent”.

Conclusion

1. The environmental health dangers posed by non-recommended use of DDT are real.
2. The safeguards inherent in the WHO recommendations and guidelines on the use of DDT for disease vector control present a much diminished environmental and/or health risk, if any. Global use of DDT, if restricted to indoor residual spraying, will form a minuscule portion of past usage levels, and will address the uncontrolled release of the pesticide into the environment.
3. Periodic review of the continued need for DDT use in disease vector control, under the Stockholm Convention, will be based on available scientific, technical, environmental and economic criteria, which take into account the conditions outlined in the preceding paragraphs.
4. The restrictions on the use of DDT for disease vector control provide an appropriate balance between the need to preserve environmental health and the overriding concern to save human lives/health.

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