

# HIGHLY HAZARDOUS PESTICIDE USE IN AFRICA

STUDIES IN CAMEROON, ETHIOPIA, KENYA, MOZAMBIQUE,  
TANZANIA AND ZAMBIA

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## INTRODUCTION

Highly Hazardous Pesticides (HHPs) are a threat to human health and the environment, with significant impacts on developing and transition countries. In 2015, more than 100 governments at the 4th International Conference on Chemicals Management agreed that HHPs were an issue of global concern and reached a consensus resolution to give priority to the promotion of agroecological alternatives in the process of implementing the strategy on HHPs developed by FAO-UNEP-WHO.

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**DESPITE SYSTEMS FOR PESTICIDE REGULATION AND CONTROL, PESTICIDES WITH SEVERE ENVIRONMENTAL AND HUMAN HEALTH HAZARDS ARE IN WIDE USE IN ALL SIX COUNTRIES.**

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The phase-out of HHPs and the promotion of agroecological alternatives contribute to achievement of the Sustainable Development Goals (SDGs) that call for, inter alia, efforts to promote sustainable agriculture (SDG2), healthy lives and well-being (SDG3), sustainable management of water (SDG6), decent work (SDG8), and the sustainable use of terrestrial ecosystems and halt of biodiversity loss (SDG15). Reduction and elimination of HHPs would make a significant contribution to each of these goals by reducing exposure and adverse impacts on human health and the environment.

IPEN Participating Organizations in Cameroon, Ethiopia, Kenya, Mozambique, Tanzania and Zambia conducted surveys of pesticide registration laws and examined the country situation on HHPs and possible alternatives.

## PESTICIDE REGISTRATION LAWS EXIST BUT WIDE USE OF HHPs OCCURS

All six countries have a pesticide registration and control policy under the responsibility of the Ministry of Agriculture and other responsible sectoral ministries of the countries. In each of the countries' policies, it is clearly stated that no pesticide shall be registered unless the efficacy, safety and quality is tested under field or laboratory conditions and approved by the Ministry of Agriculture and other responsible bodies. No person may formulate, manufacture, import, pack, re-pack, label, sell, distribute, store or use a pesticide not registered by the Ministry or contrary to the conditions of its registration. Information about the chemical's profile, human and animal health hazards, and its effect on the environment and non-target organisms are claimed to be checked. The laws state that the harmful effects of a pesticide should be insignificant compared to its benefits, and that its residues should not be persistent. They also state that applicants cannot manufacture, import, or sell pesticides that are banned or restricted by international conventions in which countries are a Party. Despite these systems for pesticide regulation and control, pesticides with severe environmental and human health hazards are in wide use in all six countries. Banned pesticides are still being formulated and/or imported in some of the countries. Not a single country has a separate or special registration system for HHPs.

### HHPS COMPRISE A SIGNIFICANT PROPORTION OF REGISTERED PESTICIDES

In all six countries, the list of registered pesticides was examined against the PAN list of HHPs. The PAN HHP list contains 310 pesticides and is based on compiling information from WHO, US EPA, European Commission and the Pesticide Property Database. The comparison revealed varying numbers of registered pesticides and significant proportions of HHPs among registered pesticides. Some HHPs banned in other countries are being used in these countries. Although the hazards of HHPs are well recognized, there is no comprehensive national or regional plan/strategy to keep separate records, update the list and recognize HHPs for a progressive phaseout. However, there are some FAO initiatives underway in some countries that are trying to address HHPs. The table below indicates the percentage of HHPs among all registered pesticides in each country.

Country	Number of HHPs registered	Percent of registered pesticides that are HHPs*
Cameroon	40	9.5%
Ethiopia	236	58%
Kenya	704	34%
Mozambique	35	19%
Tanzania	989	58%
Zambia	13	4%

\* PAN list of HHPs

### TECHNICALLY FEASIBLE ALTERNATIVES ARE AVAILABLE

There is no formal national or regional government-initiated implementation of alternatives to HHPs. However, some civil society organizations have developed research and implementation of alternatives in Africa. For example, the International Centre for Insect Physiology and Ecology (ICIPE) is a pioneering regional research institute headquartered in Kenya which has developed different techniques of Integrated Pest Man-



agement (IPM), push-pull technology and other agroecological methods. Push-Pull technology is a system used to protect maize and sorghum from stem borer and striga weed. The system uses one type of plant to repel pests and another to pull moths toward a plant that kills their eggs. This technology is being promoted by NGOs, and smallholder farmers in some of the six countries are using it.

Ecological Organic Agriculture (EOA) has been implemented in 8 African countries, including Ethiopia, Kenya and Tanzania, for organic crop production through Internal Control System (ICS), Participatory Guarantee Systems (PGS) and internationally recognized organic certification systems that are promoted by Bio-vision Africa Trust (BVAT). Hundreds of thousands of farmers are producing organic cotton, vegetables and other crops for national and international consumption. The organic cotton production in the Southern Rift Valley area of Ethiopia and in Benin are among the best experiences of agroecological farming that totally eliminate HHPs and other pesticides. The cotton IPM succeeded with new innovative pest management techniques included to help boost the use of natural enemies and biological control agents. It was found to be economically profitable, with yields over 100% higher than conventional farmers in the same area in Ethiopia, and the price obtained per kilo of organic cotton increased by 77% compared to conventionally grown cotton. These endeavours were supported by the use of smallholder farmers' indigenous knowledge in most of the countries, which sustained local seeds and biodiversity. This is considered as the main pillar to replace HHPs in Africa.

## RECOMMENDATIONS

National governments should take the lead in phasing out HHPs with active support from UN agencies, donors and stakeholders. The assessment identified the following recommendations:

- Information and awareness-raising on HHPs and their alternatives should be part of the national strategy.
- Enhance knowledge of key players such as pesticide inspectors, agricultural extension staff, pesticide sellers and users on the need to phase-out HHPs.
- Governments should identify and publicly disseminate lists of all HHPs that are on the national market and put emphasis on the use of agroecology as an alternative.
- Governments should develop a roadmap to implement a progressive ban on HHPs.
- Mainstream agroecology research should be part of the national agricultural research agenda to build evidence on the benefits of agroecology and its contribution to food and nutrition security, as well as food sovereignty.
- Mainstream agroecology within the public extension programs to ensure that extension services are available and accessible to all farmers.
- There should be capacity-building programs targeted at improving the skills and knowledge of farmers on organic farming and IPM as well as identifying appropriate technologies that can support agroecology.



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