



# Obsolete Pesticides



## Problems Prevention and Disposal

*Cleaning up the mess:*

### TECHNICAL, DANGEROUS AND EXPENSIVE

Leaking and corroding metal drums filled with obsolete and dangerous pesticides dot urban and rural landscapes of developing countries around the world. These chemical leftovers have become villains in the agricultural world they were designed to help, affecting not only a nation's agriculture

and its environment, but the health of its people — and consequently development.

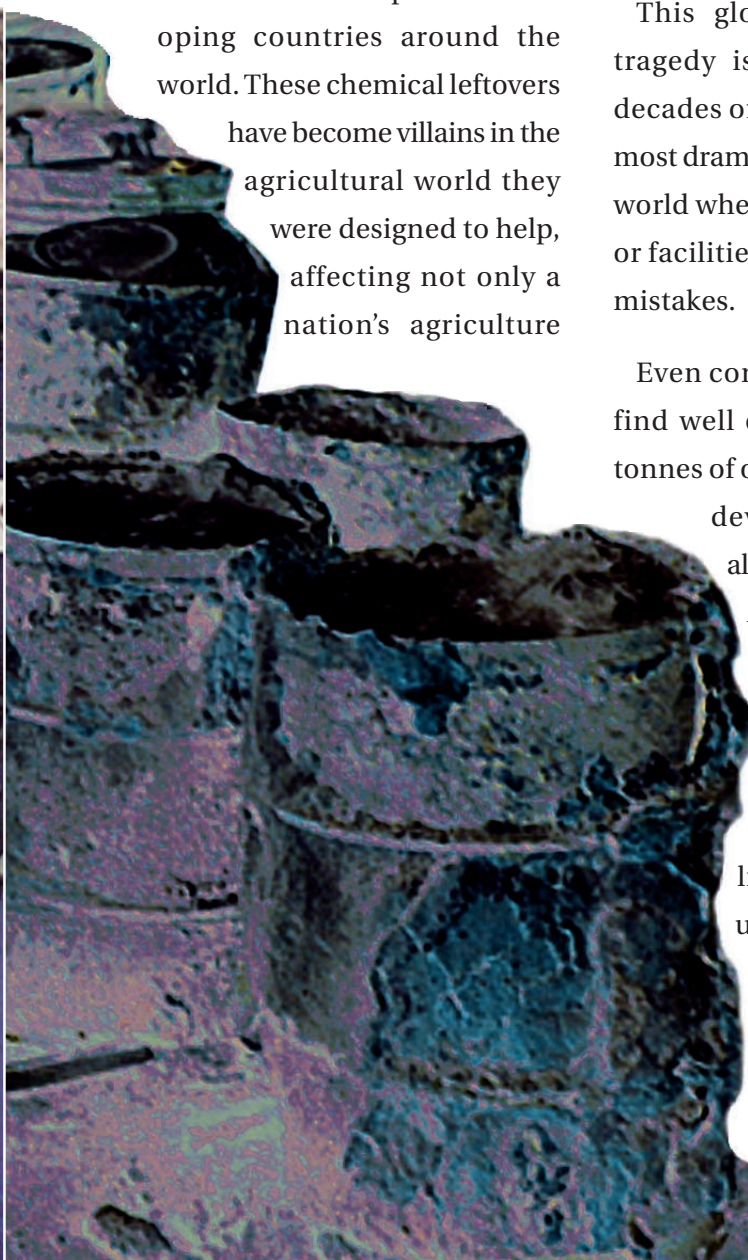
This global environmental tragedy is a direct result of decades of mishandling, but is most dramatic in the developing world where there are no funds or facilities for cleaning up the mistakes.

Even conservative estimates find well over 100 000 metric tonnes of obsolete pesticides in developing countries, almost 20 000 tonnes in Africa alone.

The Collaborative Programme on Disposal of Obsolete Pesticides established by FAO in 1994 underlines the urgency and importance of a concerted international effort to solve this problem.

The cost is high — as much as 500 million dollars to clean up these critical areas of the developing world — but so is the potential for environmental disaster if the situation is not dealt with swiftly and safely.

**H**igh temperature incineration in dedicated hazardous waste furnaces is the currently recommended method for disposal of obsolete pesticides. But such sophisticated incinerators do not exist in developing countries. It is necessary to re-package pesticides where they are found in the field, transport them overland to a major port and then by sea to a country where there is a dedicated hazardous waste destruction facility. FAO estimates the cost of these operations as between US\$3 000 and US\$4 500 per tonne.



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## Activities in the field

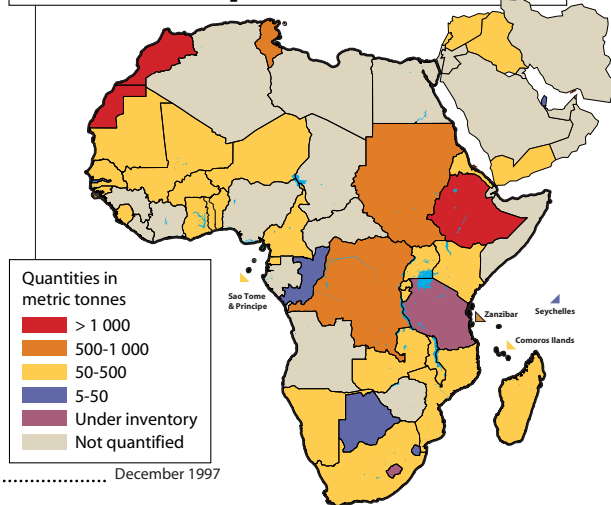
### Survey results capture world's attention

Between 1994 and 1996, the FAO Collaborative Programme on Disposal of Obsolete Pesticides undertook the enormous job of identifying and surveying stockpiles of dangerous pesticides in Africa and the Near East. In a little more than two years, 42 countries were surveyed.

The alarming information gathered during these surveys has provided concrete evidence of the real and immediate danger these stockpiles of obsolete pesticides

pose to the global environment. Using these statistics to raise awareness has put FAO in a stronger position to impress upon donor agencies, private industry and governments of developing countries the need to work together to put the problem on the international agenda to develop a global strategy and conducive plan of action that will lead to manageable solutions.

### Inventory of obsolete and unwanted pesticide stocks



### Pilot Projects completed

Three pilot projects in pesticide removal were completed successfully in Yemen, Zambia and the Seychelles through the Collaborative Programme. An FAO/TCP disposal operation was implemented in Uganda, in cooperation with UNCDF. In all cases, the work was overseen by FAO technical experts who verified that the procedures were conducted according to FAO guidelines for international safety standards. Similar disposal operations have been undertaken by other organizations, namely the Government of Netherlands, Germany BMZ/GTZ, Shell and USAID in Niger, Zanzibar, Mozambique, Madagascar, Tanzania and Mauritania.

The need to replicate these disposal operations in almost every developing country is urgent.



Drinking water stored in contaminated drums



Decanting old pesticides into new containers

# What FAO

- Surveying and monitoring potential problems of existing stockpiles
- Creating and distributing guidelines for safe storage, for preventing accumulation and for removal
- Initiating and formulating disposal projects for member countries

Dangerous pesticides in the open: 300 tonnes



# is doing

- Organizing local, national and regional training seminars, workshops and group discussions
- Sensitizing and mobilizing the public through raising awareness
- Supervision, monitoring and follow-up of disposal operations in the field

70 tonnes of leaked pesticides



Children play, oblivious to the dangers of the toxic chemicals



## Raising awareness by sharing Information

### Publications

FAO has produced and published three sets of guidelines and other related documents for management and proper storage of needed pesticides and for technical disposal operations for unsafe, obsolete, unwanted or banned pesticides.

#### Guidelines:

- Prevention of Accumulation of Obsolete Pesticide Stocks
- Pesticide Storage and Stock Control Manual
- Disposal of Bulk Quantities of Obsolete Pesticides in Developing Countries

#### Related documents:

- Prevention and Disposal of Obsolete and Unwanted Pesticide Stocks in Africa and the Near East: First Consultation Meeting
- Prevention and Disposal of Obsolete and Unwanted Pesticide Stocks in Africa and the Near East: Second Consultation Meeting
- Database of collaborative programmes
- Disposal operations: a pictorial presentation of operations completed

The three guidelines are available in English, French, Spanish and Arabic. The related documents are available in English.

### Video tapes

Documentary crews were present for the pilot project disposal operations in Yemen and Zambia, and three awareness-raising videos have been produced that give a dramatic human dimension to the problems caused by unsafe stockpiles of pesticides plus a visual view of the technical disposal operation.

*Disposal operation in Yemen*

*Disposal operation in Zambia*

*Disposal operation: Yemen and Zambia*

A video of the Seychelles operation was produced by Seychelles National Television.



### Internet

Instant access to almost all of the information compiled by FAO since the inception of the FAO Collaborative Programme on Disposal of Obsolete Pesticides is available to any interested agency or organization through the FAO homepage on the Internet: <http://www.fao.org> (click on Agriculture, Plant Protection).

### CD-ROM

An interactive CD ROM with all data from global surveys, FAO data bases, text from the series of guidelines, photographs and video excerpts has been designed and produced.

# Policy Issues

Although past mistakes have been recognized and measures taken to prevent repetition, large quantities of obsolete pesticides remain as a heritage of more than 30 years of misuse.

Unless coordinated international action is taken this situation will continue to worsen. The following highlights the ongoing efforts of FAO.

**ORGANIZING A GLOBAL EFFORT** to dispose of existing hazardous chemicals and also to avoid further accumulations

**PROVIDING MONITORING SERVICES** to ensure that contractors comply with international safety and environmental standards

**ESTABLISHING MORE COOPERATION** among donor governments and aid agencies, recipient governments and agrochemical companies, who all must assume some of the responsibility for the current situation

**GIVING HIGH PRIORITY** to promoting methods of pest management that will reduce the reliance on pesticides

**PROMOTING GUIDELINES** that limit stock of pesticides to short-term requirements

**RECOMMENDING** that selection of agrochemical companies to supply pesticides under aid arrangements be limited to those that are willing to take back or help dispose of unused product

**SEEKING FUNDING SOURCES** for disposal operations

**ESTABLISHING JOINT FUNDING** arrangements when necessary

# Causes for accumulation of obsolete pesticide stocks

- ☠ Inadequate storage facilities or storage containers
- ☠ Pesticides banned while in storage
- ☠ Prolonged storage of products with short shelf lives
- ☠ Inability to forecast pest outbreaks such as locusts
- ☠ Poor assessment of pesticide requirements
- ☠ Unawareness of pesticide dangers
- ☠ Poor stock management and record keeping
- ☠ Inappropriate, out of season or unethical dumping as a pretext of donations
- ☠ Overpurchase through government budget allocations
- ☠ Ineffective distribution or marketing systems
- ☠ Aggressive profit motive by vendors

## For more information contact: FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS

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