

**PESTICIDE USE AND MANAGEMENT IN  
ETHIOPIA**

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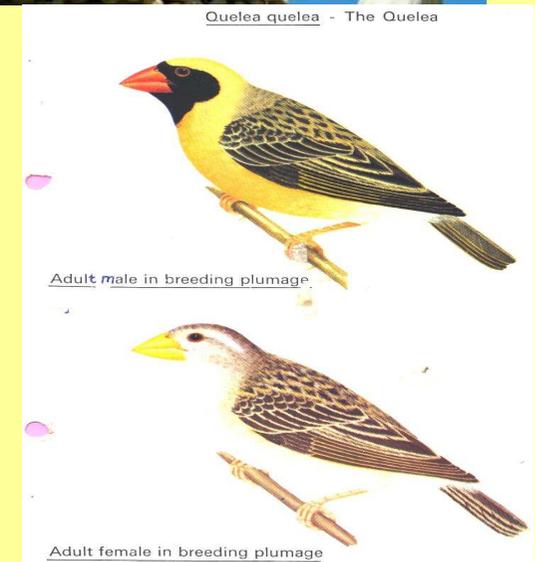
**ADDIS ABABA, ETHIOPIA**

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# 1. Introduction

- Pesticides play an important role in agriculture and public health sector
- Pesticides have been used for more than 4 decades in the country
- Seems the best control option
  - Desert locusts
  - Armyworms
  - Quelea birds
  - Malarial transmitting mosquitoes
  - Pest control Researches have been focusing on chemical control method



# A major input in commercial farms





A major input in flower farms  
(photo by Leigh Morris)

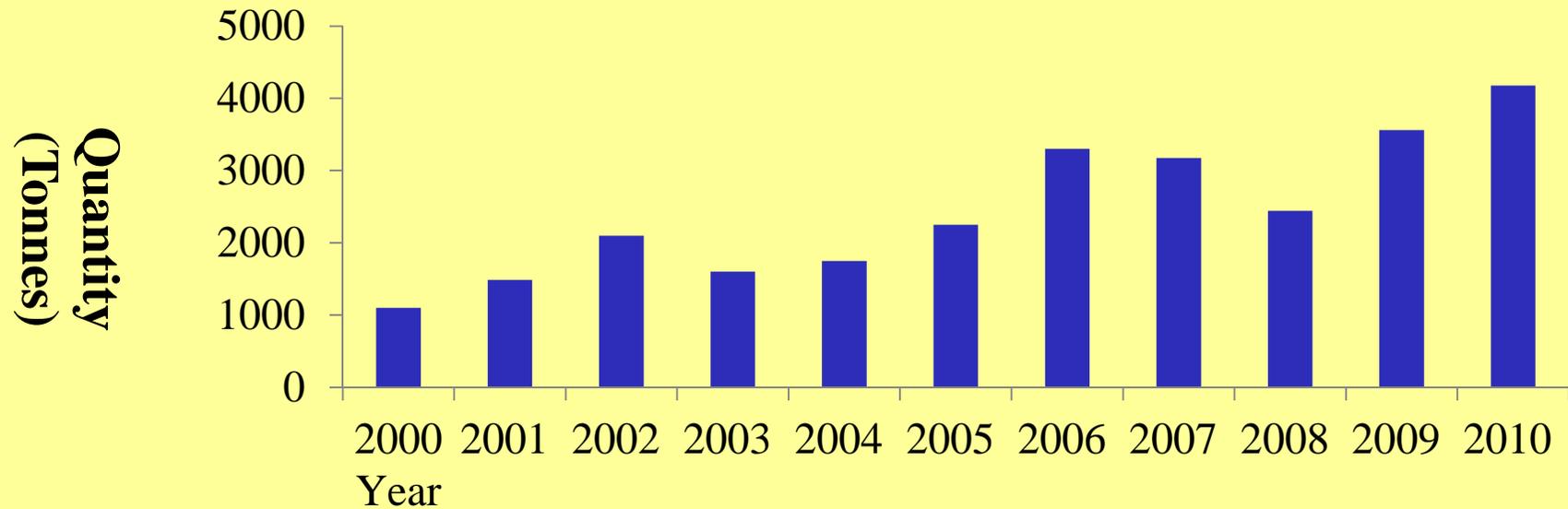


Widely used by smallholder vegetable farmers  
in the central rift valley



(After Tadesse Amera and Asferachew  
Abate, 2008)

# Pesticide imports to Ethiopia (Tonnes)



## Issues /problems

- Misuse and abuse of pesticides (mixing, spraying) including illegal diversion of DDT to agriculture sector (Abiy Alemu and Williamson, 2002)
- Possible effects on non-target crops (e.g atrazine sprayed in maize field could be detected in coffee (as a residue) grown adjacent to maize field) and in some occasions residue report in an export crop.
- Cotton pests resistance to pesticides in state farms,
- Mosquito resistance to Deltamethrin in few areas,
- Pesticide residue problem in the surface water in the agricultural areas along the central rift valley (Alterra report 2010)

## Issues/problems (cont)

- The incidence of respiratory impairment among pesticide applicators in a commercial farm (Alemtsehay Mekonen, 2004)
- Using highly toxic, broad spectrum pesticides by smallholder farmer (e.g lambda-cyhalothrin, aluminium phosphide)
- Circulation of hazardous and unknown pesticides on the black market (e.g. Technical zinc phosphide ,Aldicarb etc)
- Using pesticide containers for food , drinking water, brewing local drinks
- The accumulation of large masses hazardous obsolete pesticides (3000 tones) in about 900 sites in the past.

# Issues/problems(cont.)

## Legislation

- Fragmentation of pesticide registration and control responsibilities between two organizations in the past( the problem solved recently- By enacting new pesticide registration and control proclamation)
- Lack of pesticide regulation , different guidelines and directives (bio-pesticide, banned pesticide, pesticide packaging ,transport ,management of empty pesticide container etc)-now draft pesticide regulation is available

# Enforcement of legislation

- Weak enforcement of pesticide legislation
- There is no strong collaboration among regulatory bodies to control illegal pesticides

## Registration

- Lack of comprehensive pesticide acceptability criteria and evaluation procedure on human health, environment and physical and chemical characteristics
- Lack of guidance on decision making for pesticide registration
- Lack of human health and environmental hazard risk assessment methods

## Post Registration

- Insufficient post registration quality monitoring on imported pesticides
- unable to conduct pesticide residue monitoring of pesticides.
- Lack of statistical database for monitoring the distribution and use of imported and locally formulated pesticides.
- shortage of laboratory equipment, reagents, standards, to conduct quality and residue analysis of pesticides.

# Training

- Lack of training for custom inspectors in pesticide inspection.
- Lack of training for pesticide registration experts in dossier evaluation.
- Shortage of trained chemists to conduct laboratory analysis.
- Lack of training on risk evaluation, hazard surveillance and monitoring for pesticide regulators
- Lack of training for pesticide retailers and distributors
- Insufficient training for medical professionals with regard to pesticides.

# Other problems

- Protective clothing are not available as required, cost prohibitive and are not suitable for hot climate.
- Sprayers may not wear safety gears properly.
- Some times wrong type of PPE may used



**Only a respirator!**

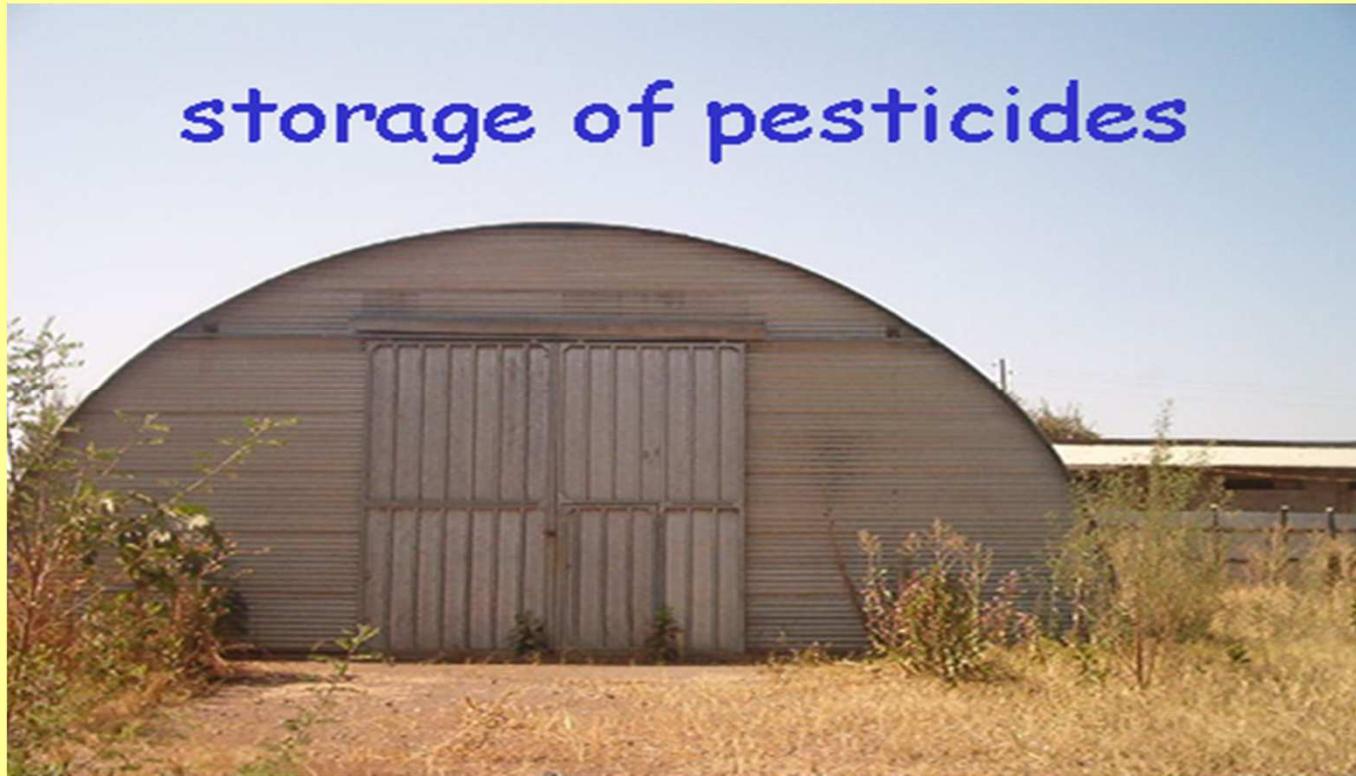
# Pesticide storage

- Lack of standard pesticide stores in most areas of the country
- Most pesticide stores in the country are old, substandard and overstocked
- Such conditions contributed to the accumulation of obsolete pesticides

# Substandard pesticide store



## storage of pesticides



# Accumulation of obsolete pesticides stored in open (Gode-Eastern part of Ethiopia)



Bird's eggs laid on Obsolete pesticides  
Kola Diba Store (Verification Photo)



Progress Report for 7th PSC  
Meeting 13 June 2006

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# Birds Affected by Pesticides



## Some pesticide management initiatives

- The launching of IPM-FFS on cotton resulted in the training of 781 farmers and 32 government facilitators
- Bio-pesticide on farm trials are being conducted in rose flower farms as pesticide risk reduction action.
- Over 2600 tones of obsolete pesticides have been disposed of.
- The Gov of Ethiopia issued a revised pesticide registration and control proclamation No 674/2010
- Various pesticide management trainings have been given for crop protection experts, store keepers and retailers

# Some pesticide management initiatives(cont.)

- A pesticide residue laboratory has been established under MoA to ensure better quality of agricultural products including export crops
- Ministry of agriculture is in the process of constructing new pesticide stores (ESIA is about to be completed )
- Pesticide Risk Reduction Programme- Ethiopia has been launched since late 2010 to improve the pesticide management along the entire pesticide life cycle.

*Thank you*