



Controlling Pesticide Health and Environmental Hazards at Community Level in Lake Eyasi Basin, Karatu District, Tanzania

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Introduction

- ❖ Tanzania: over 940,000 km²
- ❖ Population: over 39 million
- ❖ Agriculture the main employer, over 70%, > 50% of GDP
- ❖ Pesticides: mainly in agriculture and public health

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❖ While pesticides seem to have increased agricultural production and improved public health,

➢ they could also be detrimental to human health and the environment.

❖ The real impacts of pesticides are not easily documented in most circumstances.

➢ Acute effects are easier to observe, but they could also be confused with common illnesses.

➢ Pesticides may also cause chronic diseases

➢ Pesticide externalities are also not taken into consideration

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❖ Chemical pesticide use in horticulture in Tanzania was historically low,

➢ recent developments in demand for increased food production and expansion in horticulture have resulted in higher consumption of chemical pesticides

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Controlling Pesticide Hazards Project

• Lake Eyasi Basin in Tanzania has a history of intensive pesticide use.

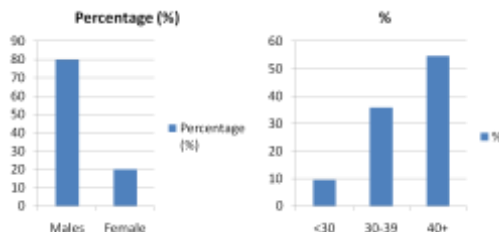
• Vegetables are grown throughout the year and pesticides are widely used

• TAPoHE embarked on a project to train local communities to "self-monitor" the impact of pesticide use in their area



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Characteristics of farmers in Lake Eyasi



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Specific objectives

- Increase farmer awareness of the burden of illness created by indiscriminant use of pesticide.
- To document the incidence of mild and moderate pesticide poisoning not necessarily reported by the local health care system
- To undertake initial response measures and make appropriate recommendations for further action on pesticides

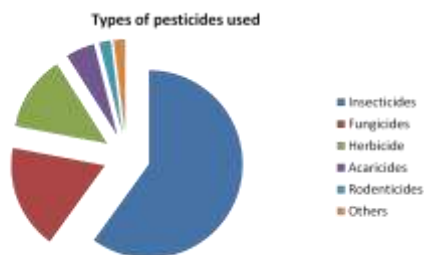
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Materials and Methods

- Protocol development-
 - data collection tools developed by FAO in Asia were adopted to local situation ([translated](#) and then pre-tested)
- Training –
 - conduct seminars/meeting with the community representatives
- Data collection and analysis–
 - Establishment of Community Pesticides Monitoring Teams and data collection

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Current situation concerning pesticides use in Karatu District



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Hazardous practices



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Farmer's training



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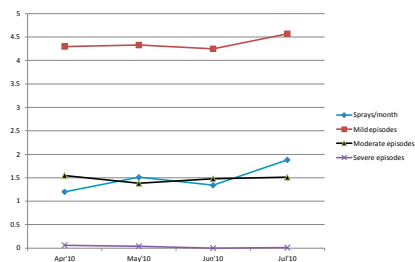
Results

Poisoning incidences/spray



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AVERAGE MONTHLY SPRAY EVENT & ILLNESS EPISODES PER FARMER - QANG'DEND



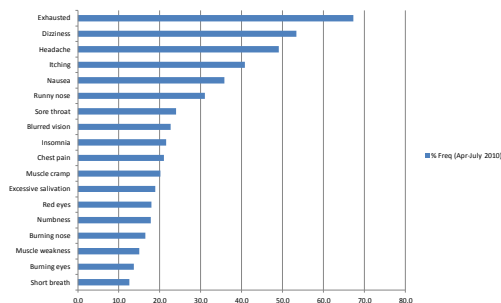
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Pesticide mixtures in L. Eyasi

TRADE NAME	COMMON NAME	TYPE
Dursban + Selecron + Profectron + Fenom C	Chlorpyrifos + profenofos + profenofos + cypermethrin	Insecticide
Thionex + Polytrin + Selecron	Endosulfan + profenofos + cypermethrin + profenofos	Insecticide
Fenom Plus + Profecron + Dursban	profenofos + lamda cyhalothrin + profenofos + chloropyrifos	Insecticide

FARMERS' SELF-REPORTED SIGNS AND SYMPTOMS OF PESTICIDE POISONING, QANG'DEND - APR-JULY 2010



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Summary

- Risky behaviors in pesticide handling in Lake Eyasi Basin include spraying without protection, mixing several pesticides in one mix, poor personal hygiene
- Self reported mild poisoning episodes such as exhaustion, dizziness, headache, itching, nausea common

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Conclusion

- Application of pesticides in the study areas is high and poses health risks to the farmers applying them, consumers of products and to the environment
- Community self-monitoring reveal pesticide health impact that does not reach health care facilities
- and sensitize farmers on the health and environmental risks of pesticides

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