

# Reducing the impact of pesticides through Community Pesticide Monitoring



Agriculture employs more than 80 per cent of the working population in Tanzania. Usage of pesticides is high and often a problem for human health and the environment. Amongst the 67 000 cases of occupational diseases in the region annually, we have no idea of the number of small-scale farmers who are poisoned by pesticides because of a lack of an adequate surveillance system.

The agricultural industry in the Tanzania pushes for greater use of pesticides through initiatives such as the Pesticide Stewardship programme (Box 1), which encourages vendors to sell and end-users to purchase appropriate types and amount of products. Consumers in developed countries have begun to speak out against chemical residues in their food, compelling large scale producers to use fewer pesticides. However, there is little opportunity for action by small-scale farmers in developing countries who feed the local market. They continue to be pressured into using chemicals that are very dangerous for their health and their families' health.

By facilitating the capacity building of small-scale farmers and farm workers on pesticides so that they can take control and advance safer and healthier work conditions, people and the environment will ultimately benefit. The Work and Health in Southern Africa (WAHSA) programme carried out a pilot study that involved small-scale farmers and farm workers and their organizations in a community pesticide monitoring to assess the farmer's own realities, analyze the situation, develop a plan of action and advocate for better conditions through alliance building.

## What Is Community-based Pesticide Monitoring?

Monitoring simply means regularly observing, looking at and recording the pesticide problems local populations face. It also means keeping track of what people, companies and governments are doing at the local level. It provides local communities with the means to conduct research on their own situation.

## What Can Community Monitoring do?

When people understand the harmful effects of pesticides, many will seek to eliminate or reduce their use and exposures. If you, together with your community, gather information about the damage to life and environment caused by pesticides, it will be possible to persuade your community to eliminate pesticide use and look for alternatives to pesticides.

This information (Box2) can also be used as an advocacy tool to persuade the government to:

- change policies from encouraging pesticide use to pest management, and
- regulate the industry more effectively.

*WAHSA POLICY BRIEFS*

## Community Pesticide Action Monitoring Pilot in Ngarenanyuki, Tanzania

The community pesticide monitoring has worked successfully in the Asia Pacific (AP) region leading to action on Paraquat and Endosulfan in their region (Quijano 2002, Rengam 2003) and was introduced to Tanzania by Pesticide Action Network (PAN-AP and PAN UK) through the NGO, AGENDA. Ngarenanyuki was chosen as a pilot area for the action programme due to the fact that there was another WAHSA activity going on in the area and there was heavy indiscriminate use of pesticides, as depicted below, that promotes the proliferation of resistant pests leading to more pesticide use, associated with environmental degradation due to poor land use practice, all of which reduces farmers' profit margins.

### What was the situation like in Ngarenanyuki before the Community Monitoring pilot?

Before December 2006 when implementation of the project was initiated, use of pesticides was indiscriminate:

The majority of vegetable farmers believed that without using pesticides, crop production would have been impossible.

Mixing 5 different pesticides in a single spray mix was common practice.

Farmers did not understand what was written on the label and did not know the meaning of the colours on labels.

They applied pesticides based on hearsay

They did no scouting for pests

Farmers frequently did not follow the dose recommended on the label

Local pesticide retail shops were not registered; Shop owners repackaged pesticides into other containers without labels, and sometimes burnt empty pesticides containers at the market place.

Empty containers were sometimes re-used for storing milk, kerosene or paraffin.

#### **Box 1: What pesticide stewardship entails**

**Ensuring production, formulation, importation, exportation and use of only appropriate types of pesticides**

**Encouraging distribution or sale of appropriate quantities of products**

**Promoting and ensuring market access to registered products only**

**Blocking market access by old, cancelled or banned products via legal channel and back-door**

**Encouraging and promoting spray operations only by certified applicators**

**Promoting the use of appropriate PPEs**

## Situation in Ngarenanyuki before the pilot



### What was done during the community monitoring pilot?

Community representatives were trained for one week by pesticides and pest control experts through seminars, field work and meetings. The representatives developed data collection tools, establishment of Community Pesticides Monitoring Teams and started data collection

## What was the outcome?

Data gathered on the availability, usage, handling practices, risk perception and behaviour enabled farmers in Ngarenanyuki and the WAHSA-TPRI Team to document the incidents and adverse event resulting from pesticides use. Different tasks gave rise to signs and symptoms of pesticides poisoning - skin and eye problems needed more attention during interventions.

The action taken by the 25 farmers in the pilot study was to intensify training by initiating capacity building sessions in all villages in Ngarenanyuki. They held community training at every village meeting and gave feedback to the WAHSA-TPRI team. The monitoring team has decided to form an association called “Zuia Athari za Viuatilifu kwa Afya na Mazingira (ZAVAM)- Ngarenanyuki” name translating to “Control Effects of Pesticides for Health and Environment- Ngarenanyuki.”

### What can SADC stakeholders do to protect farmers from hazardous pesticide exposures?

- Provide support and funds for the community pesticide monitoring initiative to be implemented in relevant areas in the region
- Provide support and funds for agricultural extension workers to receive training on health and environmental aspects of pesticides.
- Provide support and funds for training of pesticide regulators and dealers on the health and environmental impact of pesticides and ways to reduce hazards

#### References

Quijano RF. 2002. Endosulfan Poisoning in Kasargod, Kerala, India: Report on a Fact-Finding Mission. Pesticide Action Network Asia and the Pacific, Penang.

Rengam S. 2003. *Breaking the Silence: Women struggle for pesticide elimination*, In *Silent Invaders* Ed. Jacobs M and Dinham. Zed Books Ltd

#### Box 2 : What Can Communities Monitor?

- When pesticide users feel sick, and what are their symptoms
- How is the community exposed?
- What concerns you and your community regarding pesticide use?
- Have there been any pesticide poisoning incidents or deaths?
- What are the pesticides used?
- Are there any pesticides that are banned or not registered being used?
- Are the pesticides properly and legally packaged and labeled?
- Are the pesticides used registered and legal products?
- Who uses pesticides in the community and who makes the decision on what pesticides to buy and use?
- How are pesticides sold, transported, mixed, and sprayed?

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