



**a toxics-free future**

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## **International SAICM Implementation Project (ISIP)**

In 2010, in an effort to demonstrate SAICM implementation via IPEN Participating Organizations, IPEN launched an International SAICM Implementation Project, also known as ISIP. ISIP aims to mobilize resources for initial enabling activities pertaining to national priorities, in keeping with the work areas set out in the strategic objectives of section IV of the SAICM Overarching Policy Strategy.

In particular, the ISIP supports the Governance objective of SAICM's Overarching Policy Strategy paragraph 26, which calls for enhanced "cooperation on the sound management of chemicals between Governments, the private sector and civil society at the national, regional and global levels."

In addition, ISIP builds on the 2008-2009 Global SAICM Outreach Campaign to raise awareness about SAICM and strengthen collaboration among the public interest, health and labor sectors.

### **ISIP Objectives**

ISIP's four objectives include:

- Promoting the need for sound chemicals management
- Advancing National SAICM Implementation
- Promoting global SAICM implementation by global civil society
- Building capacity among NGOs developing countries and countries with economies in transition

**Title of activity:** Understanding and Phasing out of Highly Hazardous Pesticides in Small Scale Farming in South Africa

**NGO:** groundWork, Friends of the Earth

**Country:** South Africa

**Date:** April 2011

### **Elements of SAICM Covered:**

Promote substitution for highly toxic pesticides including effective non-chemical alternatives (27); Provide training in alternative and ecological agricultural practices, including non-chemical alternatives (51); Encourage industry to extend product stewardship and to voluntarily withdraw highly toxic pesticides which are hazardous and cannot be used safely under prevalent conditions (30); Promote integrated pest and integrated vector management (29); Establish programmes for monitoring chemicals and pesticides to assess exposure (66)

### **Description of:**

**The highly hazardous pesticide(s) registered/sold and/or in use in your country:**

- Chlordane, monocrotophos, dieldrin, arsenic- these are pesticides that are no longer in use after being withdrawn or banned by the Department of Agriculture, however such products may still be found in farm stores, government warehouses and even in domestic households.
- Aldicarb locally known as 'Two step' is still commonly found and sold in train stations and taxi ranks. It is illegally sold for control of rats.
- DDT is not strictly banned but may not be used for any purpose other than malaria vector control by the Department of Health. South Africa is allowed under the Stockholm Convention on Persistent Organic Pollutants to use DDT for malaria vector control after requesting an exemption.
- Lindane was banned on the 29<sup>th</sup> May 2009 by Regulation No 592 under the Fertilizers, Farm Feeds, Agricultural Remedies and Stock Remedies Act, 1947 however it is still found as one of the constituents of hair treating shampoos to treat head lice.

**Alternatives and/or bio pesticides available, if any:**

We are promoting the approach of integrated pest and integrated vector management and not specific pesticide alternatives per se.

Of the small scale farmers that attended the workshops some of them are using pesticide free, organic farming methods.

**Health and environmental effects of the pesticides:**

All the pesticides listed above are Persistent Organic Pollutants and are associated with health and environmental impacts and harming the health of the soil. They often spread on air currents, and contaminate populations of birds, mammals, fish and other species. Pesticides run off into surface and groundwater and also compromise human drinking water. Acute human health problems range from acute respiratory, to skin and eye irritations. Chronic human health effects include long-term problems that such as reproductive problems, nervous system disorders and immune system effects. Self-poisoning with hazardous pesticides has also been reported to be the highest likely method of suicide.

**Information on pesticide levels in the environment, in food, or in people:**

There is no current regulation for measuring and reporting pesticide residues either in fresh produce sold in South Africa, nor even in water, which people consume. South Africa as a whole has only 2 official poisons centres.

Pesticide poisoning in South Africa is a notifiable event regulated by the Health Act 63 of 1977. London et al<sup>1</sup> and Rother et al<sup>2</sup> have consistently measured and compared pesticide poisoning and reporting/surveillance efficacy and have generally found that the true rates of pesticide poisoning in South Africa are approximately 20 times higher than the rates reported to the National Department of Health (NDoH). Between year 2001-2005 the NDoH reported 2462 pesticide poisoning cases which could be as high as 50000 cases.

Furthermore the public and farming sector is generally not even aware of the existence of these poison centres and as a result, these centres are underutilised and therefore the statistics of pesticide poisoning are always not the true reflection of the amount of cases that actually happen.

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<sup>1</sup> London et al. (1994). Notification of pesticide poisoning in the Western Cape 1987-1991. South African Medical Journal 269 (84).

<sup>2</sup> Rother, Hall & London (2008). Pesticide use among emerging farmers in South Africa. Contributing factors and Stakeholder Perspectives. 25 Development Southern Africa 4.

However in comparison a double standard exists for exported agricultural food (fruit and vegetables) to the first world economy destinations because this food is routinely tested for pesticide/agricultural residues.

### **Existing pesticide legislation in your country:**

All pesticides have to be registered under Fertilizers, Farm Feeds, Agricultural Remedies and Stock Remedies Act, No 36 of 1947.

### **Use of IPM and ecological agriculture:**

Integrated pest management (IPM) techniques are emerging and the organic agricultural practices; examples of these are highlighted under "Impacts on target groups."

### **Conditions of work:**

- Pesticide containers are frequently unlabeled or labeled with information that farmers or agricultural workers cannot read. These containers are then later burnt or used by community people to collect water for consumption from rivers and thus pose a risk of chemical poisoning;
- Necessary protective equipment is not always available;
- Pesticides are frequently used inappropriately or in wrong concentrations;
- National pesticide regulation is outdated and inefficient with no enforcement mechanism.

### **Project Outcomes:**

#### **Description of the activity conducted to reduce the threat posed by highly hazardous pesticides and advance this SAICM aim.**

On the 20- 22 of April 2010, groundWork hosted a follow-up workshop for the farmers. This was borne at the request of the farmers to get more knowledge about the dangers related to pesticide use.

#### **Impact on target groups:**

More than 65 farmers from all around the country participated and, they expressed their increased knowledge about the dangers of pesticides, how they should be kept safe to prevent the contamination of self and also of the environment.

They understood the importance of using protective clothing, and also the necessity of reading the label of the pesticide and understanding all the warnings related to each pesticide.

They also expressed their commitment to explore safer pest control methods. They promised to take back to their communities and schools the same kind of information.

The group was taken on 2 site visits:

(a) To a permaculture organic farm where they were exposed to actual agro-ecology in practice. The Dovehouse Organic Farm is a small-scale farm that was created under permaculture principles where the main emphasis is placed on diversity (every living thing has a job).

(b) They were also taken to a large commercial organic certified avocado farm that also does not use pesticides.

The farmers have been motivated by a development system that can be replicated and that provides food and medicine for them and for future generations. The participants were thoroughly engaged in the process and asked many questions.

On reflection about the site visits, the farmers reported that they have gained quite a lot of information about how to fertilize soil and make compost using chickens to make soil more fertile and productive. They were even proclaiming that organic farming is a way to go, and they

expressed they have changed their minds and when they go back to their farms they will start using less chemicals and eventually begin the journey of organic farming.

They also expressed their understanding of the fact that as human beings we need to respect nature and allow it to process itself without disturbing or interfering with it. As farmers they also realized how important it is to understand the ecosystem, the importance of other animals like snakes and other predators like spiders and even natural herbs as they help to control pests.

#### **Impact on target policies:**

- The activity has mobilized farmers and facilitated them to lobby government (DoA) to enhance pesticide poisoning surveillance, reporting, treatment
- Also to lobby government to (DoA) to prescribe routine testing of pesticides/agricultural residues in food

#### **Outreach to stakeholders:**

Mariam Mayet from the African Centre for Biosafety pointed out how the main players in the proliferation of GMOs are the biotech, chemical (pesticide) and seed companies. She further demonstrated that three main companies: Monsanto, Syngenta and Bayer are the major players in each of the aforementioned agro-industries and are able to maintain this control through the use of Intellectual Property Rights (IPRs). She discussed how this control over the seed has been heavily consolidated, for instance, Syngenta, DuPont and Monsanto own 47% of the global seed market, 65% of maize and 50% of soya.

She informed the group on how these companies are working to create the dependence of smallholder farmers on them through programs like the Massification Food Program, industrialized farming as well as the adoption of the Green Revolution model. Moreover, Mariam expressed how these giant agro-industries are supported by the government as these companies lobby heavily to shape the laws that regulate the biotech industry.

Lawrence Mkhali from Biowatch gave a presentation on the alternatives to industrial agriculture. By providing an overview for the farmers, he was able to show that a viable alternative is possible. Lawrence discussed the projects that are conducted under Biowatch and the importance of agro-ecology principles and methods such as the use of bio-fertilizers, water harvesting, soil improvement techniques and integrated pest management.

Liz Anderson from the Responsible Packaging Management Association of Southern Africa presented on "Sustainable Solutions for Re-use & Recycle of used Chemical Packaging: Challenges and Opportunities." The aim of her organization, and the international network associated with them, is to provide safe packaging solutions, to extend producer responsibility and to fight for the protection of health and safety standards.

Liz's presentation was centered on the use and re-use of containers within rural South Africa. She discussed how many people are becoming ill or dying because they are drinking out of contaminated containers. She explained that it is common for people to drink and collect water with containers that were previously used for pesticides. She brought in examples of containers and identified the hazards associated with improper storage and of the re-use of chemical containers. The Responsible Packaging Management Association of Southern Africa is trying to get people to stop using contaminated drums for any other use than its original use.

Professor Lezlie London from Center for Occupational and Environmental Health School, University of Cape Town, based most of his session on photos which were to illustrate all the wrong practices that happen in the farms. These issues raised from improper storage of pesticides, different types of spraying and also their levels of risks to people and the environment, some of the picture also demonstrated how much of negligence happens when the chemicals are being mixed and decanted to small containers, the spillages etc. This was quite useful as the farmers identified those practices and compared them with their own and

individually they came to realize which areas they could each improve on to making farming industry safe in different ways.

### **Deliverables, outputs and/or products:.**

- Meeting report
- Declaration – which was re-endorsed by all 65 participants in the April 2010 workshop.
- Rather than developing new materials, groundWork used existing material. These included materials distributed from the Responsible Packaging Management Association of Southern Africa, Booklet of Biotechnology, seed and agrochemicals.
- Furthermore groundWork are fundraising and planning a for a project to “review, collection and phase out of harmful registered pesticides (such as Glyphosate, Atrazine, Endosuphan Chlordecone (Mirex), Pentachlorobenzene, Tributyltin, Lindane and its isomers, “Two Step” (Eldrin and Dieldrin), DDT in (South Africa) in conjunction and prior to the second phase rollout of the African Stockpiles Programme (ASP)

### **Communication efforts:.**

These workshops were covered in various media including, groundWork newsletters<sup>3</sup> and a pesticide pamphlet<sup>4</sup>:

1. March 2010 groundWork Newsletter (Vol. 12; Number 1). Should poisons be in a farmers arsenal? pg 20, and
2. June 2010 groundWork Newsletter. (Vol 12; Number 2). gW workshop on pesticide alternatives, pg 18.
3. There was some radio coverage of the workshop and the outcomes

### **NGO Recommendations for next steps:**

- groundWork to lobby government for stricter policies and their enforcement to ensure that no further illegal sale of banned pesticides take place.
- To lobby government to create more awareness programs about the dangers of pesticides not only for farmers but also for communities in general.
- To lobby farmers to raise awareness on pesticide hazards and safety among emerging farmers peers etc.
- We need to also lobby for government to implement better control strategies – surveillance, correct reporting to determine the extent of poisoning.
- IPM (integrated pest management) and organic farming techniques must be advocated by agricultural extension officers
- groundWork needs to develop or gain access to a data base of organisations or farmers using non-pesticide methods. This in order that the information can be readily available for the public.

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<sup>3</sup> <http://www.groundwork.org.za/Publications/Newsletters.asp>

<sup>4</sup> <http://www.groundwork.org.za/Pamphlets/pesticides.asp>