



DISCUSSION DIGEST

Understanding & Implementing the WHO/FAO Guidance on Use of Pesticide Regulation to Prevent Suicide

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This document summarises the University of Cape Town's (UCT) Division of Environmental Health's (DEH) Pesticide Community of Practice discussion held on the 12th of September 2024, titled 'Understanding & Implementing the WHO/FAO Guidance on Use of Pesticide Regulation to Prevent Suicide'. View the discussion [recording here](#), [presentation slides here](#), and [newsletter here](#). This digest presents the issues and points raised and the information shared by participants in response to questions prepared by the presenters:

- **Dr Piume Bandara** (World Health Organization)
- **Dr Cindy Stephen** (Poisons Information Centre, Red Cross Children's Hospital)
- **Debbie Muir** (Department of Forestry, Fisheries and the Environment, South Africa)

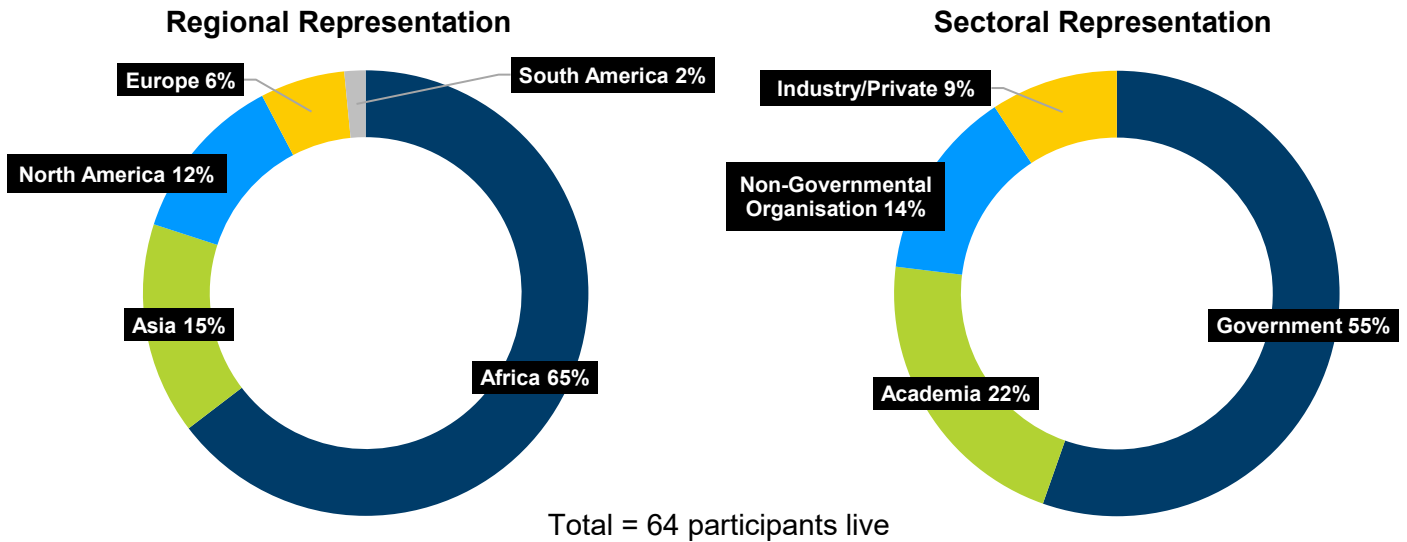
KEY MESSAGES

- **Pesticides are among the most common suicide means globally**
- People with suicidal thoughts are often seeking relief from acute distress, many act **impulsively with low suicidal intent**. For example, they may drink a pesticide, which may be regretted, as the person may die a few days later despite actually wanting to live
- **Significant reductions can be made to suicide rates if access to lethal methods is limited**, therefore, **restricting access to acutely toxic pesticides** is recognised by the World Health Organization (WHO) as an evidence-based intervention to prevent suicides
- **Guidance documents** have hence been produced in this regard, such as the WHO/FAO (Food & Agricultural Organization) International Code of Conduct on Pesticide Management, and the WHO brochure, Preventing suicide by phasing out highly hazardous pesticides, which provides a step-by-step guide to phase out highly hazardous pesticides (HHPs)
- Between 2019 and 2024, 3451 pesticide self-poisoning cases were reported in South Africa. Three quarters of these have been symptomatic, 5.8% life-threatening, and 0.4% lethal. One fifth of cases are teenagers. Anticoagulants, carbamates, and organophosphates are the pesticides most commonly reported
- **Monitoring and evaluation** of pesticide suicides is important in advocating for restriction of pesticides used in self-harm, but this is not always available or possible, especially with resource constraints
- **Multisectoral collaboration** is essential to tackle the issue of pesticide suicides
- **Restricting and reformulating pesticides** is effective in some situations, such as reduction in case fatality, but **phasing out shows a more dramatic reduction** in suicide deaths
- **Promotion of alternative approaches** to crop protection are encouraged, such as **agroecology**, to reduce or substitute the use of HHPs, reducing their availability in communities. This can meaningfully impact health with environmental co-benefits
- In South Africa, the Department of Forestry, Fisheries and the Environment (DFFE) amended the Pesticide Policy using the **precautionary principle and hierarchy of control** to replace hazardous pesticides, such as paraquat, Warfarin, and aluminium phosphide, with safer alternatives. Chemical companies assisted with research and design for some safer alternatives



- DFFE also implements awareness campaigns, and “toolbox talks” which are conducted with teams in the field every morning, usually around personal protective equipment use and safety, but also on suicide, such as the risks of pesticide suicides, with mental health practitioners. Awareness campaigns include discussions around pesticide container management and safe disposal

Breakdown of Discussion Participant Demographics



PRESENTERS

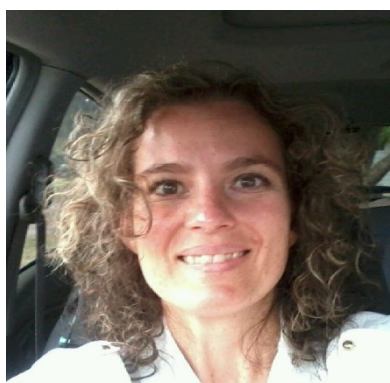


Dr Piume Bandara is a consultant in suicide prevention at the Department of Mental Health and Substance Use, WHO. Her work primarily involves supporting national governments in low- and middle-income countries (LMICs) implement suicide prevention activities, including limiting access to HHPs. She has contributed to global policy and United Nations (UN) publications to reduce suicides, including the 2023 WHO/ FAO Guidance on the use of pesticide regulation to prevent suicide. In addition to her role at the WHO, Piume is an epidemiologist in mental health at the University of Bristol, United Kingdom (UK), where she holds an honorary fellowship. Her research primarily focuses on the epidemiology and aetiology of suicide and self-harm in LMICs. Piume holds a Master

in International Public Health (University of Sydney) and a PhD in Epidemiology (Western Sydney University). She is a member of the UK Office for National Statistics Mental Health Expert Group on ‘Standards for official statistics on climate and health’ and member of the scientific committee for the International Association for Suicide Prevention World Congress.

Dr Cindy Stephen is the director of the Poisons Information Centre (PIC) at Red Cross War Memorial Children's Hospital in Cape Town, South Africa. After completing her MBChB at UCT, she worked in KwaZulu-Natal for many years in the disciplines of paediatrics and child health, with a focus on improving quality of care. In 2015, Cindy joined the PIC in Cape Town and has been involved in the further development of AfriTox, the electronic poisons information database used widely to treat poisoned patients throughout South Africa. She has also been instrumental in launching the Poisons Information Helpline service, which receives poisoning calls from throughout South Africa and is a collaboration between the PICs at Red Cross War Memorial Children's Hospital and Tygerberg Hospital. Her interests include paediatric and environmental poisonings, particularly pesticide poisoning reduction.





Debbie Muir is the pesticide risk manager/biodiversity officer Control Grade B for DFFE and holds a Master of Science in Botany, a Postgraduate Diploma in Pesticide Risk Management (UCT), and 3 international diplomas from the UN. She has international accreditations from the UN for environmental law and conventions for multinational environmental agreements, UN Statistical Institute for Climate Change, WHO/FAO for HHPs, and University of Stockholm for the assessment and management of chemicals. She is currently completing an International Diploma in Biological Diversity. She is the focal point for South Africa for FAO's Forestry Invasive Species Network Africa. She is part of the International Forestry Stewardship Council (FSC) Technical Working Group who

published the International Generic Indicators for use in conjunction with the published FSC Pesticide Policy and is currently working on updating the FSC list of HHPs. She developed the Pesticide Policy for DFFE and is currently working on the biomonitoring protocols in line with WHO guidelines.

CONTRIBUTIONS FROM PARTICIPANTS

Disclaimer: The information in this digest represents the opinions of members participating from different stakeholder groups expressed during the discussion. The views expressed in this document do not necessarily represent the opinion or the stated policy of the Swedish Chemicals Agency (KemI) or DEH UCT, nor does citing trade names or commercial processes constitute an endorsement

The key discussion points raised by participants are presented under each question. Throughout the discussion, informal polls were conducted to help encourage discussion among the participants. They do not provide any representative data but rather provide a snapshot of the participants' views.

QUESTION 1

To what extent is pesticide suicide a problem in your country/region? List your country/region in your response

South Africa

- This is a major concern for adolescents, particularly for those with access to illegal street pesticides containing HHPs
- It is a concern for farmworkers with easy access to agricultural pesticides
- 5 CMRs (carcinogenic, mutagenic, reproductive, and development toxicants) anticoagulant rodenticides have been banned and 4 derogated, i.e. they can still sell it with some limitations but only for a limited period (1 year)
- Issues regarding CMRs are still unclear, as there are no clear and detailed cut-off values or limits specific to SA. The list issued by the Department of Agriculture, Land Reform and Rural Development (DALRRD) could not be used as reference for CMRs because the data was submitted by CropLife to DALRRD as per individual company Globally Harmonised System (GHS) classification. Most companies were using the European Chemicals Agency as reference and not following the UN GHS global cut-off values

Barbados

- Pesticide suicides are not of serious concern on the island. It is rarely used

Guyana

- Pesticide suicide is a major issue in Guyana. While some numbers are decreasing, it is still one of the main tools used to commit suicide

Uganda

- Pesticides are often used to commit suicide. Police and hospital records show that 71.7% of pesticide poisoning cases are suicides

Lesotho

- There is a very high number of suicides caused by use of poisons in Lesotho, but there is not enough data reporting the kind of chemicals used

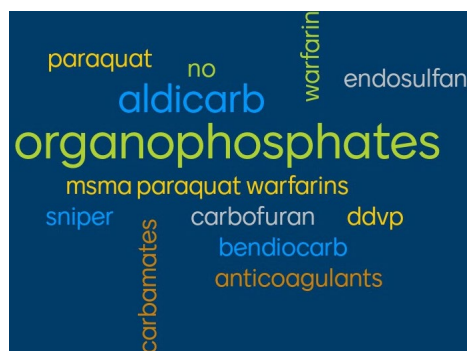
Malawi

- Pesticide suicide is a serious problem, although official data is not available. Reports from both online and print media show many cases of pesticide suicide, especially aluminium phosphide



Poll Results

Poll 1. What pesticide active ingredients are commonly used for self-harm in your country?



Poll 2. Is there a poison information centre in your country that collects pesticide poisoning data?

Yes, and it is functioning well	0
Yes, but it is not functioning well and lacks resources	3
No, and there are no plans for setting one up	4
No, but we plan to set one up in the future	4
No, but we are currently setting one up	0

Poll 3. Is mortuary data used in your country for regulating pesticides linked to fatalities?

Yes	3
No	6
Don't Know	3

QUESTION 2

What questions do you have about the WHO/FAO Guidance on Use of Pesticide Regulation to Prevent Suicide document?

- How does the guidance compare the effectiveness of different regulatory approaches (e.g. bans, restrictions, safe storage) in preventing suicides?
- Considering the WHO/FAO Guidance and the need for accurate recording of pesticide-related data, can modelling techniques be used to improve regulation even with limited suicide by pesticide data?
- Is there a synergy between the chemical conventions and this document so that 1. we are not duplicating efforts to properly manage HHPs/other dangerous chemicals and 2. would there be support (projects/funding) given to countries who lack the resources to implement these important measures to save lives? Yes, they do link to the chemical conventions - Stockholm and Rotterdam, and Kyoto protocol
- What is the quality of data and evidence used in developing these guidelines and how context-specific is it? For example, the pesticide suicide situations in Asia are fairly different from those in Africa
- Have "engineering interventions" reduced pesticide suicides?
- Is the guideline friendly to implement in LMICs?
- How can the suppliers be forced to take empty pesticide containers back? This would reduce the problem of reusing containers



Poll Results

Poll 1. Which of the following should you NOT use when communicating pesticide suicides? Tick all that apply

Do Use	Don't Use
Took their own life; suicide death	Committed suicide; commit suicides
Suicide attempt; non-fatal attempt	Failed suicide
Died by suicide	Successful suicide; unsuccessful suicide

Poll 2. Would you say that most of the pesticides used in your country for suicide attempts are highly hazardous pesticides (HHPs)?

Yes	12
No	2
Don't Know	3

QUESTION 3

What is needed to be able to implement the WHO/FAO Guidance on Use of Pesticide Regulation to Prevent Suicide document in your country or organisation?

General

- Multisectoral collaboration, e.g. regulators, health, agriculture, labour, and academia
- Proper container management system is an important strategy
- Greater buy-in from all relevant stakeholders
- The Centre for Pesticide Suicide Prevention, UK, is available to support national authorities in implementing recommendations of the guideline <https://centresps.org/>
- Capacity-building

Guyana

- The regulatory body managing chemicals needs both technical and financial support to implement this guidance
- Since Guyana is a small developing country in the Caribbean, a regional project would be useful to understand what already exists and how this document can be used to build on each country's capacity to manage these chemicals used in suicides

Zambia

- There is a need to amend the laws

Poll Results

Poll 1. Have you read/heard of the WHO/FAO Guidance on Use of Pesticide Regulation to Prevent Suicide document prior to this discussion?

Yes, heard of it and read it	4
Yes, only heard of it	6
No	4

Poll 2. Which of the following is the most effective method for preventing pesticide suicide in your country?

Banning highly hazardous pesticides	7
Improve public mental health facilities	2
Increase awareness raising of public on pesticide risks	3
Increase awareness raising of decision-makers on pesticide suicide	4
Reformulating pesticides that are used for suicide attempts	2
Improving storage of pesticides	2
Not a problem in my country	0



RESOURCES

1. World Health Organization (WHO)/Food & Agriculture Organization of the United Nations (FAO). July 2023. International code of conduct on pesticide management: guidance on use of pesticide regulation to prevent suicide. <https://www.who.int/publications/i/item/9789240066700>
2. WHO. August 2024. Preventing suicide by phasing out highly hazardous pesticides. <https://www.who.int/publications/m/item/preventing-suicide-by-phasing-out-highly-hazardous-pesticides>
3. The Centre for Pesticide Suicide Prevention. <https://centrepsp.org/>

If you are not already a member, we invite you to join UCT's Pesticide Network to receive discussion updates and newsletters: <http://eepurl.com/ijR8DX>

The **Division of Environmental Health (DEH)** Pesticide Discussion Forum is an online seminar for pesticide regulators and relevant/interested stakeholders, as well as students in the postgraduate Professional master's in chemical risk management and diploma in pesticide risk management. Our aim is to provide support for managing pesticide risks and implementing risk reduction strategies.

DEH is based in the School of Public Health at the University of Cape Town (UCT). environmentalhealth@uct.ac.za

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