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PESTICIDE NETWORK
DISCUSSION FORUM

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School of Public Health
Departement Openbare Gesondheid
Isikolo Sempilo Yoluntu

Sweden
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Options for Reducing Risks When Phasing-Out Pesticides

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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 24th of October, titled 'Options for Reducing Risks When Phasing-Out Pesticides'. 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:

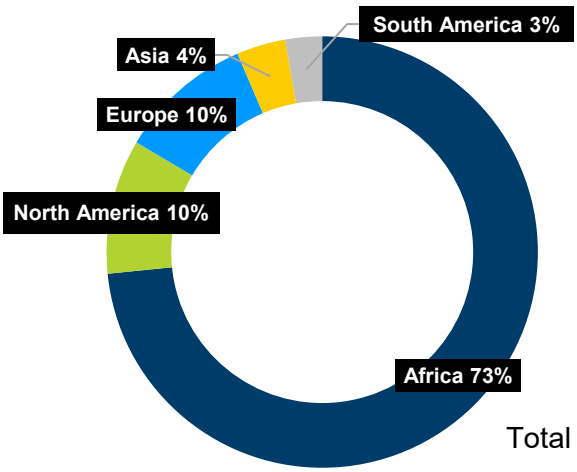
- **Andrea Rother** (Division of Environmental Health, University of Cape Town)
- **David Kapindula** (Independent Consultant, Senior Advisor for Africa Region MEAs, and Former Pesticides Registrar (ZEMA) Zambia)
- **Helena Casabona** (Swedish Chemicals Agency)

KEY MESSAGES

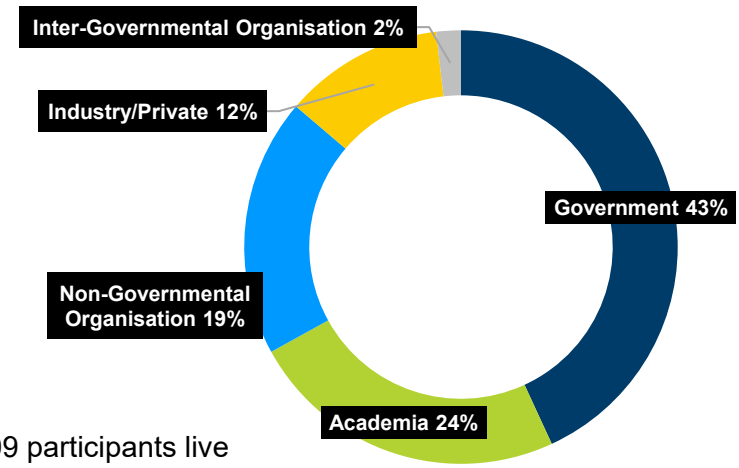
- When a decision is made to remove a pesticide from the market (due to **severe adverse health and/or environmental impact**), the pesticide can either be **immediately removed** (resulting in stockpiles) or **phased-out** within a specified time period (resulting in continued human and environmental exposures)
- Due to a **lack of guidance on mitigating risks**, particularly for low- and middle-income countries (LMICs), the World Health Organization/Food and Agriculture Organization (WHO/FAO) Joint Meeting on Pesticide Management (JMPM) is releasing a **guidance document** titled, '*Guidance on Options for Reducing Risk when Phasing-Out Pesticides*'
- **The trade-off between stockpiles and continued pesticide exposure** must be considered. To prevent ethical issues, **there must be a process to mitigate risks**
- The guidance document includes a table which provides **information for considerations when deciding to apply immediate or phased-out withdrawal**, with varying periods of time for ceasing import/sale/distribution, storage, and total phase-out, depending on the risk posed by the pesticide and the decision taken. It highlights areas of special attention such as ensuring capacity to implement and enforce restrictions, risk mitigation measures, risk communication, and stockpiles
- **Developing a risk reduction phase-out plan** is outlined in the document, and includes development on a phase-out strategy, legal aspects, risk reduction activities such as promotion of integrated pest/vector management and industry stewardship, risk communication, and financing of activities
- **Risk communication** is important as those potentially exposed need to have accurate and accessible information about pesticide hazards, appropriate to language and literacy levels. The guidance document includes steps for developing a risk communication plan, including leadership, goals, target audience identification, planning and designing messages, channels for communication, and resources to finance risk communication
- Part of the environmental management principles in Zambia include the **precautionary principle** (action taken with suspected harm before proof), the **polluter pays principle**, and **citizen access to environmental information**
- In Zambia, the process followed when deciding to regulate a pesticide includes investigation into the substance and its effects, stakeholder engagement (including industry, users, government, etc.), recommendations to the minister, communications to industry, and publication of a list of banned substances to inform the public

Breakdown of Discussion Participant Demographics

Regional Representation



Sectoral Representation



Total = 109 participants live

PRESENTERS

Prof Hanna-Andrea Rother is a professor and head of the Division of Environmental Health in the School of Public Health at the University of Cape Town and an honorary professor in the Department of Public Health, Environments and Society, Faculty of Public Health and Policy, at the London School of Hygiene and Tropical Medicine. She has over 30 years of experience in research, teaching and building capacity, particularly in Africa, on pesticides, risk communication and risk management. She has published widely on the topic and served for twelve years as a WHO expert panel advisor on the FAO/WHO JMPM. She is also currently an international board member of the European Partnership for the Assessment of Chemicals.

David Kapindula has nearly 30 years of working experience in the sound management of chemicals and waste at both national and international levels. He worked for the Government of Zambia for many years in various capacities and was a focal point for Chemicals and Waste Conventions. He served as Vice President of the Bureau of the 5th International Conference on Chemicals Management (ICCM5) for the Strategic Approach to International Chemicals Management (SAICM) from 2015 to 2023, representing the Africa Region. He served as the President of the 3rd Conference of the Parties to the Minamata Convention, Vice President of the Stockholm and Rotterdam Convention Bureaus representing the African region, Vice Chair for the Southern Africa Pesticides Regulator's Forum, member of the FAO/WHO Panel of Experts on Pesticide Management (JMPM) for 10 years, and chair of the Steering Committee on the Global Alliance for the Development and Deployment of Alternatives to DDT for Disease Vector Control under the Stockholm Convention and Africa Region Focal Point for Strategic Approach to International Chemicals Management (SAICM). David has also served as co-chair in various meetings of conference of parties for the chemicals and waste conventions and was one of the key negotiators during the development of the Minamata Convention on Mercury. He is currently serving as a senior advisor to the Africa region on chemicals and waste Multilateral Environmental Agreements (MEAs).

Helena Casabona has worked for the Swedish Chemicals Agency (KemI) since 1996. She is a biologist and toxicologist by training and has held different positions at the Agency over the years, both as a technical expert and manager. Her focus has been pesticide related tasks with an emphasis on human health hazard and risk assessment. She is now working as a strategic adviser and is involved in different development cooperation projects, including KemI's International Training Programme in chemicals management.

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
Why should it be considered "good practice" to allow a phase-out period of pesticides to be banned to prevent obsolete stockpiles at the cost of continued human exposure?

- Prevents stockpiles of obsolete pesticides which can be costly to safely dispose of, and prevents sudden disposal of large quantities of pesticides, both of which can cause environmental contamination and damage. However, there should be restrictions as to who should have access to these pesticides and have sales and purchase records
- Allows time for farmers and businesses to adjust practices and find alternatives
- Promotes research into safer alternatives and allows industry and government to identify and mainstream substitutes/alternatives
- Prevents economic instability from sudden bans, e.g. loss of stocks, food supply impacts
- Provides time for transitioning to sustainable/safer alternatives, e.g. with training/education and stakeholder consultation
- Allows time for compliance and enforcement
- Farmers will not always want to give up their old stocks, they prefer trade-offs, or better still, reuse and even overuse, since profit margin is always the goal

Poll Results

Poll 1. In your opinion, is it a human rights violation to include a phase-out period when banning or withdrawing a pesticide from the market?

Yes	7
No	22

- It is also vital to consider the hidden costs linked to the continued use of a banned product, especially linked to farmers' health and the medical costs linked to long-term health effects. Many pesticides identified for banning are because of the severe health effects linked to the active ingredient/product
- I don't think the phaseout is a violation but rather, the introduction into the market without any knowledge of the risks (environmental and health).
- The time it takes to phase a pesticide may lead to more human health and environmental harm. There may be rush sales and overuse of pesticides, putting the environment at risk.
- It's not a human rights violation because one is considering both sides. The health and safety of all humans as well as the

consideration of those who would have financially legally imported products until the phase-out point.
- I think it is a human rights violation to allow pesticides in the market that cannot be used without harm to health and environment. If the phase-out period done with an effort to reduce the risks and exposure, it is a way to address the human rights violation. It is an obligation of states to make sure they do not allow chemicals that harm health and lives of their citizens. It is a responsibility of the industry to make sure they do not manufacture chemicals that harm health and lives

Poll 2. In which situations do you feel there should be NO phase-out period?

- High acute toxicity
- High risk to human health and/or the environment
- Acute health risks, with severe, immediate harm to human health, including risks such as acute toxicity, cancer, neurological damage, or birth defects
- HHPs
- When the phase-out exists so that manufacturers are not going to lose money
- When there is sufficient evidence to prove that the product is causing irreversible harm to human health
- When the health of people is at most risk
- When there is an unacceptable high risk from the use of that pesticide
- Where there are available alternatives and measures of dealing with stockpiling
- When there are suitable and safer alternative products in the market
- High acute toxicity, long half-life, bioaccumulates, very volatile
- When deaths are so high that the country in question cannot manage the continued use

QUESTION 2
Please give examples of the legal provisions in your country, or the country you work in, for when a decision is made to "ban" a pesticide (including phaseout period or not)? (Include the country in your response)

South Africa
- DDT operators are employed on a temporary basis, especially when there is an outbreak during hot and rainy seasons
- The Pesticide Management Policy of 2010 refers to types of pesticides that should be banned. The policy focuses on highly hazardous pesticides, such as endocrine-disrupting chemicals, immunotoxins, and those harmful to the environment. It includes provisions for restrictions, phasing out, and complete bans to address these pesticides
- The Registrar of Act No. 36 of 1947 had decided to phase out active ingredients and formulations meeting the criteria of carcinogenicity, mutagenicity, and reproductive toxicity (CMR) categories 1A or 1B for the Globally Harmonized System of Classification and Labelling of Chemicals (GHS). The objective was that products meeting these criteria will not have their registrations renewed from June 2024
- The phase-out period is included. For example, methyl bromide is only in use under Critical Use Exemption on ISPM 15, Quarantine and pre-shipment, structural building

Nigeria
- A phase-out period is usually included during the ban of pesticides
- The most recent ban of Dichlorvos (sniper 100ml only) had a 6-month phase-out period

Zimbabwe
- DDT was banned for use in agriculture. Exemption made for malaria control with a phase-out period being implemented

Malawi
- There are legal provisions in the Pesticides Act (CAP. 35: 03) to ban a pesticide (i) for example Section 2 of the Act stipulates the ban on the use of a pesticide and (ii) Section 11 (f) of the Pesticides Act and section 29 of the Pesticides regulations, 2023 stipulates a temporal ban on the importation or manufacturing of a particular pesticide to control stockpiling. However, in both provisions, there are no phase-out periods

Comoros
- DDT has been banned for over 7 years now
- Chlorpyriphos is in the process of being banned with restrictions and importations

Zambia

- The minister may, on the advice of the Environmental Agency, ban, severely restrict, or restrict the use or production of a pesticide or toxic substance where the minister determines that the unregulated use or production of the pesticide or toxic substance is or is likely to be harmful to human health, animal or plant life or the environment

Uganda

- The Agriculture Chemicals Control Act of 2006 defines the chemicals that should be banned, but it is rather vague and lacks a clear line of action

Other/General

- Sometimes the decision to renew is without much notice
- Penalty fees are so small - the industry just goes ahead to pay
- Risk communication is an area that is not often fully utilised to ensure public awareness and participation during phase-out

Poll Results

Poll 1. What role should the industry play to reduce risks when a pesticide is banned?

- Industry should comply with the ban, seize production of the banned chemical, and focus on alternatives
- Invest in creating safer alternatives
- Provide/seek out/research alternative safer, effective alternatives
- Compliance with bans and regulations: the industry must promptly comply with the ban, halting the production, sale, and distribution of the banned pesticide. This ensures that no additional exposure occurs
- Proper disposal and remediation: manufacturers and distributors should ensure the proper collection, disposal, or remediation of banned pesticides that may remain in circulation or on farms
- Mitigating risks, ensuring a smooth transition, and protecting both public health and the environment
- Industry should play a crucial role in informing consumers/society
- Raise awareness and provide training to make people aware of the available alternatives and to avoid buying banned pesticides from the black market
- Stop the manufacturing and importation of such a banned product
- Where possible, the industry should actively engage in the disposal of the banned pesticides
- Industries should comply and provide mitigation measures to avoid use of the pesticide
- They should provide provision for repossession of obsolete products, assisting farmers with collection and safe disposal of banned products
- Ensures that a banned pesticide is withdrawn from the market and production is immediately ceased

Poll 2. What experiences can you share with members when removing a pesticide from the market?

- Important to plan for adequate time for complete withdrawal of the product as different stakeholders will respond differently depending on when they received information on the ban
- The product will still be available after the withdrawal period if it is still allowed in the neighbouring countries
- Users still have resistance to accept withdrawal of the product
- Awareness-raising is needed for users to understand the effect of the banned product on human health and the environment, as well as for them to understand their role in the ban
- The process is consultative, and from the Zambian scenario, it's important to have a legal framework in place that clearly outlines the process
- Adequate education to farmers/users on why it has been removed, the timeline and implementation, as well as alternative options or approaches for control

- Use replacement substances that probably are of higher long-term toxicity. Also, when one single substance is substituted by several others, it's more difficult to track them and have a risk overview
- The challenge we are having in South Africa is the issue of Aldicarb which was banned in 2015, but we still find it at street vendors, resulting in many cases of poisoning
- Zambia: wide stakeholder engagement and user education on the effects
- Pesticides in a restriction category take 2 years to register and carry a higher registration fee, minimising the appeal to continuing registering it
- Setting up a phase-out period of at least 24 months to avoid stockpiles
- Removing a product faces some resistance from agriculture dealers as well as the end-users. If the product is still being used in another country, it can be smuggled in
- Providing alternative pest control methods

QUESTION 3
What risk mitigation and risk communication measures are currently in place in your country to protect human health and the environment during a phase-out period? (Include your country in your response)

Malawi
- Awareness campaigns on the phase-out plan and risks associated with the product:
  - Promoting effective alternative methods e.g. biological and cultural methods
  - Encouraging use of PPE during product use and handling
  - Conducting trainings on safe disposal, Integrated Pest Management
  - Restriction of the product to specific uses which are only deemed necessary
- Risk communication measures
  - Posters, leaflets, television, and stakeholder meetings
  - Notices in newspapers
  - Organisation websites
  - Radio interviews

Nigeria
- One of the mitigation strategies I have noticed is creating awareness that this pesticide has been banned. There are usually news articles, radio announcements, etc.

Zimbabwe
- Training of environmental health staff and sprayers
- Licensing restricted to Ministry of Health DDT usage reported to the WHO

Comoros
- Communications in all agricultural workshops are currently being implemented on the risk of pesticide misuse in the Comoros

Zambia
- The Environmental Management Agency has an Environmental Communication Strategy
- Under projects for the management of chemicals and waste, there are communication strategies that are specific to a project and the chemical of concern

South Africa
- Prohibition of registrations for pesticides identified as highly hazardous or harmful to the environment
- Evaluation of risk assessments and applications for derogations for temporary extensions of registrations
- Integrated pest management and legislation are some of the risk mitigation measures in place in South Africa
- Material Safety Data Sheet is one of the risk communication measures used
- Risk communication needs more efforts

Other/General
- Risk communication is particularly difficult when pesticide industry public relations is strong
- Risk communication to policymakers is paramount
- Radios, workshops, but people living with disabilities are not well catered for in all these attempts at communicating risks
- Through farmer field schools

Poll Results

Poll 1. What is your opinion about the phase out table presented, and would you consider putting this in your legislation?

- It is very practical and would consider putting it in policy
- Yes, also provides information on the decisions to phase-out
- The table takes a very structured approach. It would be useful if all countries could put this into their legislation so that phase-out periods are handled equally
- Yes. They seem flexible enough to be contextualised in different countries

Poll 3. Give examples of risk communication measures used in your country/the country you work in. How have the risks been communicated to the public and farmworkers?

- Yes, regulatory texts should take these issues into account
- Mandatory 3-year education for farmers, where risk mitigation (for pesticides) is taught
- No adequate communication in South Africa, requires more readily available or accessible information on risks to farmers
- Farmer field schools
- Risk communications in South Africa are very formal and do not take farmworkers or the public into account when it comes to delivering this information. Different languages/education levels etc.
- Regulatory texts
- Notices in newspapers
- Organisation websites
- Radio interviews
- Through training, use of flyers, publications, create awareness in the communities, conducting workshops
- In Switzerland, there were two initiatives a few months ago to completely ban all synthetic pesticides. We had to vote on it, which lead to an active discussion in the society
- Farm workers - through trainings, posters
- Medical surveillance: if the pesticide related health issues are discovered/ addressed early it would assist in mitigation measures

Questions & Answers

Several questions were answered live during the session (view the recording here), the rest, included in this digest, were answered through typed responses by Andrea Rother.

During the phase out, are street markets or illegal markets also considered?	This is a good point. One of the reasons for banning a pesticide in some countries is linked to their use as a street pesticide.
With regards to DDT: I think a phase-out period allows development of alternatives compared to a complete ban. Most LMICs are still using it, although it was banned. So was the complete ban effective?	There are many alternatives to DDT for malaria control which many countries have implemented since they banned the use. However, some countries see the alternatives as more expensive. Some must be applied more frequently as they do not last as long as DDT or not easily applied to the inside of homes/walls.
In the phase-out process, is the efficacy of the present pesticide considered? For instance, pesticides that are no longer effective in killing or controlling pest populations due to pest resistance?	This could be a reason why the pesticide is being banned. However, the phase-out period is purely for using up stocks and not about efficacy.
To ask about human rights may be oversimplifying the issue. I would focus on risk vs benefit of each decision. Stockpiling	In the risk benefit analysis, one needs to consider the health effects of the individuals who will continue to be exposed to a pesticide with

may cause bigger challenges especially in LMICs which usually do not have capacity for destruction of stockpiles	severe health hazards/toxicity so that governments are not faced with the cost of destroying the stocks. One must ask, how each of us would feel as a farmer to use a product daily, often with no personal protective equipment, not knowing that it will be banned in say two years' time because it is, perhaps, carcinogenic, mutagenic or has reproductive toxicity.

RESOURCES

1. Zimbabwe Environmental Management Agency https://www.zema.org.zm/publications/
2. Withdrawal of pesticide product authorisations and permits. United Kingdom Health and Safety Executive. https://www.hse.gov.uk/pesticides/applicant-guide/withdrawal-of-authorisations-and-permits.htm
3. Regulation (EC) No 1107/2009 of the European Parliament and of the Council of 21 October 2009 concerning the placing of plant protection products on the market and repealing Council Directives 79/117/EEC and 91/414/EEC https://eur-lex.europa.eu/eli/reg/2009/1107/oj

If you are not already a member, we invite you to join UCT's Pesticide Network to receive

The **Division of Environmental Health** (DEH) Pesticide Discussion Forum is a bi-monthly online seminar for pesticide regulators and resource persons, as well as students in the postgraduate Professional Masters in Chemical Risk Management (MCRM) and Diploma in Pesticide Risk Management (DPRM). Our aim is to provide support for managing pesticide risks and implementing risk reduction strategies.

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