

Pesticide Discussion Forum Summary Digest

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Linking international processes on Highly Hazardous Pesticides to national action

Since Highly Hazardous Pesticides (HHPs) were defined and included in the FAO/WHO International Code of Conduct on Pesticide Management in 2014, the term has increasingly provided a reference point for the most harmful pesticides and those that regulators and other decision makers should focus on when reviewing national pesticide registers and seeking safer alternatives for pest management. The concept is that relatively few very harmful pesticides cause most of the damage – if these are taken out of use or better controlled, we can eliminate most of the human and environmental harm caused by pesticides. HHPs have therefore become a focus for attention among policy makers in international processes such as SAICM and the chemicals conventions, UN organizations, the private sector and civil society. Several processes directed at removing HHPs from use or eliminating risks from HHPs have been initiated in different contexts.

About the Presenters



Sheila Willis is Head of International Programmes at Pesticide Action Network UK. Sheila's academic background is in Agricultural Zoology / Entomology and she is an Honorary Senior Lecturer at in the Division of Environmental Health in the School of Public Health and Family Medicine, University of Cape Town. Sheila has undertaken assignments for UN FAO, UNEP and the secretariats of the chemical conventions.



Mark Davis is an independent consultant specializing in pesticide management and sustainable agriculture. He worked for 17 years with FAO successively leading the field programme on obsolete pesticides, the Pesticide Management Unit of FAO, FAO's Climate Change Strategy and the FAO Environmental and Social Risk Management Unit.

DISCLAIMER: The information below represents the opinions of members participating from different countries expressed during the discussion and shall not necessarily be taken to reflect the official opinion of the DEH, UCT, SIDA or Kemi.

Question 1 Stakeholder Opinions:

Where do you (as regulators or in other roles) obtain information that guides your decisions on which pesticides to use and which to take action to minimize or phase out? Do you engage with stakeholders from your own or other countries to get information?

ACADEMIC: In South Africa, the FAO pesticide registration toolkit and websites such as PPDB, KEMI and ECHA has information in SA is not that obtainable but I have access to more information through UCT health sciences library as a student.

LABORATORY SCIENTIST: Obtained information from FAO Toolkit, epidemiological publications by academia, locally generated reports from fellow farmers, and reports from other closely related countries to Nigeria.

AGRICULTURAL OFFICER: In Uganda, it is not easy to generate enough information on pesticides due to inadequate resources and expertise needed to collect and process data. Information is sought from technical reports from HICs, pesticide dossiers, international resources like FAO, WHO, International conventions (Rotterdam).

REGULATOR: Belize uses information from countries with a recognized pesticide registration scheme (USA, Australia, EU, Canada). Additionally, we use databases such as the ECHA to verify label classifications, the pesticides and bio-pesticides database from the university of Hertfordshire & FAO specifications. In Malawi regulators rely on the information from FAO and international organizations. Sometimes the media also presents facts. We also utilize information from the SADC region, engage with the Malawian Environmental Affairs Department, Ministry of Health, the Malawi Bureau of Standards, academia and the Department of Agricultural Research. Togo obtains information from CILSS (regional registration agency for pesticide in west Africa).

GOVERNMENT: In South Africa, information can be elicited from Department of Agriculture and Health in the province or national by

engaging them via email or phone them directly. Information is obtained from pesticide databases, local agrochemical suppliers, and farmers association through farmer field school, media as well as international multilateral groups. In Estwatini, I obtain information on which pesticides to use from the FAO Pesticides Registration Toolkit, the WHO Recommended Classification of Pesticides, the GHS and the FAO pesticides registration toolkit. The government of Tanzania engages with different stakeholders such as, pesticide industry, pesticide distributors, agro-dealers, farmers, researchers, pesticide regulators and public health sector.

INDUSTRY: Information is obtained from the Conventions (Stockholm, SAICAM, Basel and Rotterdam), FAO, WHO and UNEP. We also get information from the ministry communications through the registrar of chemicals and research publications and the metadata in research institutions and universities. We engage and get information from the researchers, the industry, SADC and regional organizations.

ADDITIONAL QUESTIONS FROM PRESENTERS: In the Pesticide Registration Toolkit, we are trying to provide country-specific information on registrations/approvals, labels, MRLs and risk evaluations. What other type of national information would you like to see included in the Toolkit? **PARTICIPANTS' RESPONSES:** Links to where incidences of poisonings are available and information of pesticides that are on the up-rise w.r.t poisonings and environmental fate. Ideally the information is supposed to be readily available, as chemical poisonings should be notified. However, there are still some gaps in reporting nationally and at local level the information is not well recorded due to lack of investigations to confirm the type of chemical causing illness.

Question 2 Country Opinions:

Have you used the concept of HHPs to help you to identify pesticides for action? If yes, please share your experience. If no, please share any problems that have prevented you from doing so and any comments you have on the concept of HHPs or the criteria that define them.

YES

ZAMBIA Screening of the pesticides register identified the HHPs in use, conducted field surveys of pesticide use under local conditions; we are currently conducting needs assessments and identification of alternatives.

BELIZE: Integrated by updating its restricted use pesticides criteria to that of the 8 HHP criteria (plus more) rather than just the one criterion of the pesticides being a 1a or 1b WHO classification as it did before 2017.

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| NIGERIA: I rejected using Dichlorvos as an indoor residual and farm produce store protection, which is a common thing in the country. Although, it is categorized under Class iii by WHO classification by hazard. |
| ZIMBABWE: The concept has helped find a proper replacement that would best suit the Zimbabwean market. However, testing of alternatives is time consuming and obliges farmers to use HHPs as the new "soft" chemistries is not be accessible to the market. HHPs are a concern in Zimbabwe in both agriculture and health and I have used the concept to identify possible HHPs in pesticides used for vector control related to human health. Manufacturers apply for registration of vector control products and I decide on whether to accept the products for vector control or not based on the available information of HHPs. |
| TANZANIA: In 2017, Tanzania had a project of six months on the identification of HHPs. We use eight criteria developed by JMPM to identify the HHPs from the list of registered pesticides. Under that project, we identified the first list of HHPs registered in Tanzania; the first lists of alternatives have been identified and plan for the reduction of HHP has been put in place. In addition, we engage stakeholders (Pesticide industry, distributors of pesticides, and pesticide regulators) on discussing the HHPs and alternatives. |
| MALAWI: The concept of HHP's has been used in Malawi to identify and isolate HHPs from our register of pesticides for possible regulatory action. Ivy Saunyama did this in 2017 following training and guidance from the FAO regional office. |
| NO |
| UGANDA: We have not identified HHPs using the Concept of HHPs. It is a complicated process to determine the chronic toxicities of specific pesticides amidst a variety of pesticides being used. |

Question 3 Themed Opinions:

How could UN organisations and global initiatives support faster or more effective action on HHPs in your country, regionally or globally? Do they already assist you to act on HHPs? How?

PRICING OF ALTERNATIVES: The price of better alternatives could become lower when these products are getting a bigger market after phasing out the HHPs, the cheapest option tendered is a problem in our country. In the case of pesticides, it should not be the criteria but the safer option. Countries should make it clear for financial partners.

NEW "SOFT" CHEMISTRIES: The UN organisations and global initiatives can support faster and more effective action on HHPs in Zimbabwe and regionally by setting demonstration trials of new "soft" chemistries in Zimbabwe and the region.

RESEARCH: Little attention has been given in researching how to apply biopesticides as their deposition has to be related to where the pest is in a crop canopy. When dieldrin was banned for locust control, it took ten years research to develop the commercial "Green Muscle" using Metarhizium acridum as a biopesticide. So far industry has not done as much research on this aspect.

FINANCIAL RESOURCES: In Eswatini, UN organizations and Global Initiatives can help with financial resources to design lined landfills to dispose of obsolete HHPs and containers. In Zambia we have received support from FAO and are currently participating in a regional HHP project alongside Botswana and Zimbabwe. It would be helpful if GEF can fund a regional project that would involve all countries say in the SADC region.

THE UN AGENCIES (WHO AND FAO) SUPPORT PROPER USE AND DISPOSAL OF HHPs (DDT) IN ZIMBABWE: WHO advocates for the gradual scale down of DDT for malaria control by providing

technical advice on the available insecticides that can be used in Zimbabwe. WHO makes it mandatory for Zimbabwe to report the amount of DDT imported and used. FAO gives technical support on proper accountability of DDT (storage and use). FAO also gives financial support so that the government of Zimbabwe takes cognizance of absolute stocks of DDT and its proper storage and use (through inventories and community surveys). GEF provides funding through other agencies for the proper management of DDT.

ENFORCEMENT: Borders in Southern Africa are porous. Proper enforcement is needed.

ADDITIONAL QUESTIONS FROM PRESENTERS: What do you think about external bodies deciding which pesticides can or can't be used in your country? For example, if a major buyer of agricultural produce decides they will not allow certain pesticides to be used on the crops they buy, or now the EU is declaring that they will be removing 50% of HHPs from EU agriculture in the next decade and they want all countries that sell food to the EU to also stop using those pesticides. Is that helpful or is it intrusive?

PARTICIPANTS' RESPONSES: There was a time when the major supermarkets in the UK were dictating to the market what pesticides they would accept on certain foods, a narrower list than the regulator was permitting. Even switching countries to purchase certain vegetables until their usual supplier caught up with their stricter rules. The supermarkets have a lot of power in some markets. Helpful as it also affects organic farming as the question can be asked - are you really organic if your neighbour used pesticides and you use the same water source for irrigating your crops and you are close to the pesticide sprayed fields.

Resources and Further Reading

- Ayanthi Karunaratne, David Gunnell, Flemming Konradsen & Michael Eddleston (2020) How many premature deaths from pesticide suicide have occurred since the agricultural Green Revolution?. Clinical Toxicology, 58:4, 227-232, DOI: [10.1080/15563650.2019.1662433](https://doi.org/10.1080/15563650.2019.1662433)
- Williamson, S. 2011. Understanding the full costs of pesticides: Experience from the field, with a focus on Africa. In: Stoytcheva, M. (Ed.), Pesticides – The Impacts of Pesticides Exposure. InTech. ISBN: 978-953-307-531-0
- Pesticide Registration Toolkit <http://www.fao.org/pesticide-registration-toolkit/en/>
- FAO/WHO Guidelines for the Registration of Pesticides http://www.fao.org/fileadmin/templates/agphome/documents/Pests_Pesticides/Code/Registration_2010.pdf
- Rotterdam Convention Severely Hazardous Pesticide Formulation Toolkit <http://www.pic.int/tabid/3114/Default.aspx>
- UNEP (2013) Costs on Inaction on the Sound Management of Chemicals <https://www.unenvironment.org/resources/report/costs-inaction-initiative>
- Identifying HHPs and FAO/WHO JMPM criteria <http://www.fao.org/agriculture/crops/thematic-sitemap/theme/pests/code/hhp/en/>
- PAN International list of HHPs https://issuu.com/pan-uk/docs/highly_hazardous_pesticides_-_march?e=28041656/62901883
- FAO (2016) Addressing Highly Hazardous Pesticides in Mozambique <http://www.fao.org/3/a-i5360e.pdf>
- The International Code of Conduct on Pesticide Management http://www.fao.org/fileadmin/templates/agphome/documents/Pests_Pesticides/Code/Code_ENG_2017updated.pdf (Article 2: Definitions; Article 7.5; Article 9.4.1)
- SAICM Strategy on HHPs <http://www.saicm.org/Portals/12/Documents/EPI/HHP%20strategy%20English.pdf>
- WHO - exposure to highly hazardous pesticides: a major public health concern <https://apps.who.int/iris/bitstream/handle/10665/329501/WHO-CED-PHE-EPE-19.4.6-eng.pdf?ua=1>
- FAO/WHO - Detoxifying agriculture and health from highly hazardous pesticides A call for action <https://apps.who.int/iris/bitstream/handle/10665/330659/9789241517065-eng.pdf?ua=1>
- WHO/FAO - Preventing suicide: a resource for pesticide registrars and regulators note to registrars on suicide prevention <https://www.who.int/publications/iitem/preventing-suicide-a-resource-for-pesticide-registrars-and-regulators>

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 Post-Graduate Diploma in Pesticide Risk Management (DPRM). Our aim is to provide support for managing pesticide risks and implementing risk reduction strategies. DEH is based in the School of Public Health and Family Medicine at the University of Cape Town (UCT). **This Digest was produced by: Tatum Louw** | Forum Administrator | lwxtat001@myuct.ac.za. **Prof Andrea Rother** | Forum Moderator | andrea.rother@uct.ac.za **Acknowledgement:** Financial assistance from the Swedish International Development Cooperation Agency (SIDA), has been arranged by the Swedish Chemicals Agency (KemI)

