



Guidelines on Highly Hazardous Pesticides

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Highly Hazardous Pesticides (HHPs) means pesticides that are knowledge to present particularly high levels of acute or chronic hazards to health or environment according to internationally accepted classification systems such as WHO or GHS or their listing in relevant binding international agreements or conventions. In addition, pesticides that appear to cause severe or irreversible harm to health or the environment under conditions of use in a country may be considered to be and treated as highly hazardous pesticide.

Problem related to HHPs

There are many problems like health problem (suicide attempts, accidental poisoning, harmful effect on liver, kidney, lungs, nervous system, immune system, gastrointestinal tract. Skin, cardiovascular system, reproductive system endocrine system), wide use distribution & sale of HHPs, regulatory problem (lack of approval and registration procedure for pesticides), inadequate promotion & adoption of low-risk alternatives, weak capacity & infrastructural problem (serious data gap, lack of capability & capacity of monitoring data) and awareness problems (lack of awareness among consumers & farmers).

Mitigation measures for HHPs

There are many measures to be considered –

1. Banning of pesticides.
2. Restricted use (crop specific & geographical local specific).
3. Packaging and product- product should vomit inducing ingredient, should be strong odour or colour for identification, child – resistant caps, container size should be easy to handle.
4. Training and education – providing training to farmers and workers about integrated pest management (IPM), crop protection products and disposal of empty containers.
5. Integrated Pest Management (IPM) and Integrated Nutrients Management (INM)- maximum use of IPM and INM methods for controlling the pest of crops.
6. Use of Personal Protective Equipment (PPE) during working.
7. Replacement with alternatives- replacement with other methods and less hazardous chemicals.

Key points to be considered during choosing of alternatives to HHPs

- The pest problem has to be understood
- not simply replacing one chemical with another
- risk assessment of alternatives
- rapid action is needed
- Stakeholders' consultation is beneficial for the effective replacement of HHPs.

Replacement options- agroecology or ecosystem services, cultural practices, physical practices, crop resistance, biological control agent (microbial and semiochemical agent), botanical pesticides, synthetic chemicals.

Main focus area in mitigation

1. **Awareness program-** awareness programs for raising awareness of pesticide regulators & other government authorities, farmers, private sector, consumers, workers, trade unions, health-care providers, research and development institutions, mass media about the risk of HHPs. Identify and share information about risk reduction measures and viable alternatives to HHPs.
2. **Capacity building in regulatory control-** strengthening of regulatory framework with regard to pesticide registration schemes, risk assessment, review of registered pesticides, manufacturing, formulation, distribution, storage, sale, use and disposal of HHPs. also support the government on enforcement mechanism, adequate analysis of pesticides product and residues, training to health professionals to promote efficient surveillance and identification of HHPs.
3. **Piloting and mainstreaming of alternatives-** it is crucial to provide assistant to small-scale and large-scale farmers to enable them to phase out highly hazardous pesticides, or prevention of unacceptable risks and to support the design and implementation of appropriate prevention-based programmes to phase out HHPs and replace them with sustainable and less hazardous pest management tools and methods based on the integrated pest management.

First Aid in case of exposure to HHPs

1. **Eye exposure-** if poison splashes into an eye, then hold the eyelid open and wash gently and quickly with clean running water at least for 15 minutes. Do not use any eye drops or chemicals or drugs in wash water and immediately consult with doctors
2. **Skin exposure-** if chemical splashed on the skin, then remove contaminated cloths and wash the area with water and use soap and shampoo for cleaning of hair and skin.
3. **Inhaled poison-** carry the patients to fresh air immediately. If victim's skin is blue or he has stopped breathing then give artificial respiration. Open the doors and windows
4. **Swallowed poison-** in case of swallowed poison mostly child take unknowingly then induce the vomiting. Always keep vomiting inducing syrups like Ipecac and immediately go to the doctor.

Conclusion

Highly hazardous pesticides pose acute hazard human and environment. Mostly poor and developing countries are facing the problems of HHPs. These guidelines are intended to help national or regional pesticide regulators with limited resources to design a process to address HHPs. These guidelines also underscore the importance of adequate pesticide registration, and risk and needs mitigation as part of the reduction of hazards of HHPs.

References

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