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PILLAR 1.1

Highly Hazardous Pesticides (HHPs) in international governance – how far have we come?

With special reference to human rights

November 2020

Pesticides are designed to harm biological processes

The FAO defines pesticides as ‘any substance or mixture of substances intended for preventing, destroying or controlling any pest.’

Pesticides were developed to inhibit the development of organisms or to kill them. These characteristics can harm not only the intended organisms, like specific pests, but also so called non-target organisms like pollinators and also humans. Their widespread use has led to ubiquitous contamination of natural resources and has developed into a human rights issue.

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The costs of pesticide use

All stages of production, distribution, use and disposal of pesticides present risks and potential costs.

UNEP's 'Cost of Inaction' report* in 2013 shows that the costs of inaction on pesticides for small holder farmers in sub-Saharan Africa was an estimated **USD 4.4 billion** (this included hospital care and days' work lost only)

* https://wedocs.unep.org/bitstream/handle/20.500.11822/8412/-Costs%20of%20inaction%20on%20the%20sound%20management%20of%20chemicals-2013Report_Cost_of_Inaction_Feb2013.pdf?sequence=3&isAllowed=y

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Impacts on health

- An estimated 44% of farmers suffer acute unintentional pesticide poisoning symptoms every year

  Boedeker W, Watts M, Marquez E, Clausing P. 2020. The global distribution of acute unintentional pesticide poisoning: estimations based on a systematic review [in press]
- Children and women are at higher risk
- WHO estimated 193,460 people died of pesticide poisoning, including by suicide, in 2012 (https://www.who.int/ipcs/poisons/en/)

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Obsolete stockpiles

Most pesticides have a shelf life of two years from the date of manufacture. Poor stock control can result in large stocks of old and unwanted pesticides.

Pesticides also become obsolete when they are banned. ‘Donations’ of unwanted and obsolete pesticides are often made to Low Income Countries, particularly during pest outbreaks, such as locust outbreaks. These often end up in obsolete stockpiles.

For more information on the causes of obsolete pesticides go to:

Obsolete Pesticides: Why do we have this problem? (fao.org)

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Obsolete stockpiles

According to FAO ‘Half a million tonnes of obsolete pesticides are scattered throughout [low income] countries. These toxic chemicals, often stored outdoors in leaking containers, are seeping into the soil and water, putting populations and environmental resources at high risk.

Eliminating these dangerous stocks is extraordinarily expensive. To meet UN safety standards, the stocks must be re-packed, transported and (usually) shipped to a suitable high temperature facility. Currently, only Europe allows the import of pesticide waste for incineration.

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Obsolete stockpiles

Only measures to reduce the use of pesticides will stop the accumulation of more related hazardous waste.

Take Ethiopia:

- From 1998 – 2003 1500 tons obsolete pesticides were disposed of
- In 2007 a further $2.03m was provided to dispose of another 1100 tons
- In 2017 1.4t obsolete DDT and 220 additional contaminated sites/stores were identified

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Obsolete stockpiles

Each of the inventory / clean up operations in Ethiopia has revealed large quantities of obsolete pesticides and cost millions of dollars to contain and ship them to a suitable disposal facility.

Ethiopia's 1,400 metric tons of DDT will be removed in about 70 shipping containers. No disposal facility on the African continent meets the environmental standards needed under the Stockholm Convention to destroy POPs molecules, so it will likely be shipped to an incinerator in Western Europe. **UNEP describe the $5-million price tag for this operation as 'cheaper than normal'.**

Each time these operations have taken place, promises have been made to address the root causes of the problem …

For more information on the causes of obsolete pesticides go to:

[Obsolete Pesticides: Why do we have this problem? (fao.org)]

Pictured: an image from UNEP's video of a stockpile of obsolete DDT at Adama in Ethiopia. More details concerning the large stocks of obsolete DDT being cleared from Ethiopia can be found here:
[Defusing Ethiopia's toxic time bomb (unep.org)]

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Empty containers

Discarded pesticide containers are a significant, global problem. They are much more hazardous than general plastic waste due to the pesticides residues they contain. They can lead to incidents of human poisoning and they contaminate soils and water.

A PAN-UK survey of 209 smallholder farmers in Suriname estimated each farmer generates, on average, 34.7 pieces of pesticide contaminated plastic per farmer per year and 4.64 foil sachets.

Many places lack ***any*** suitable options for dealing with empty pesticide containers.

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Re-use of pesticide containers

Unfortunately hazardous pesticides containers, which are made from high quality plastic, can also be attractive storage containers for water and food, resulting in dangerous exposure to hazardous chemicals.

In some countries it is common to purchase used pesticide containers at markets for domestic use.

A survey by PAN-Africa in Senegal in 2010 revealed that 10% of pesticides containers were reused for domestic purposes.

Child playing with empty pesticide containers on sale at a market in Benin.

Photo: PAN UK/OBEPAB

Empty pesticide containers are used for storing water in some households in Malaysia

Photo: PACOS

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Empty containers and EPR

Extended Producer Responsibility (EPR) requires producers to be responsible for end-of-life management of any waste that is generated from the use of their products. In the agricultural sector this includes empty pesticide containers and other packaging.

The intent of these policies is

1) to ensure designated products are properly managed at the end of their useful life;

2) to give a financial incentive to make products cheaper to manage at end of their useable life

EPR arrangements may be voluntary or obligatory and they are generally developed separately for each sector e.g. construction, e-waste, agriculture

Empty pesticide and fertilizer jugs ready for recycling in Cleanfarms' container collection program. Photo Cleanfarms. (CNW Group/CleanFARMS Inc.)

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Empty containers

CropLife International boast that from the 40 mature container programs they support, farmers currently return 66% of all plastic containers shipped. Even in the fortunate locations with mature schemes in place, **34% containers** are not recovered. The majority of locations have no such schemes, meaning that in this case the containers end up being burned, buried or put into landfill. All these options lead to environmental contamination.

Burning empty pesticides containers releases dangerous toxins from the plastic as well as the pesticide into the atmosphere.

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HHPs

Highly Hazardous Pesticides are acknowledged to present particularly high levels of acute or chronic hazards to health or environment. 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

Guidelines on Highly Hazardous pesticides, FAO and WHO 2016

'**Conditions of use**' refers to common practice

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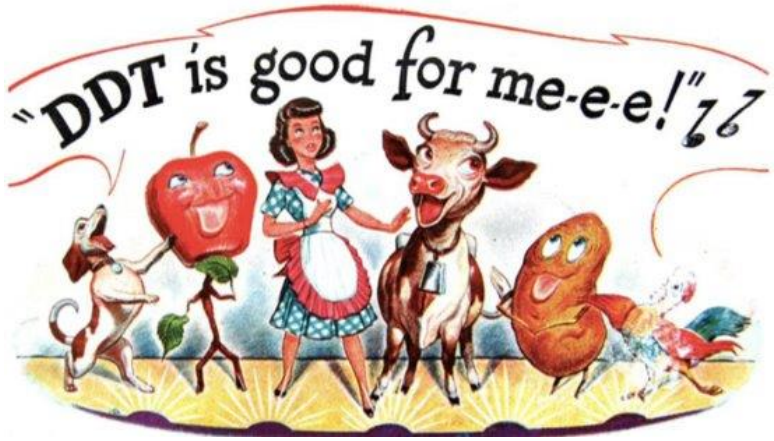
HHPs in the 'modern era'

Although the term ‘Highly Hazardous Pesticides’ was only coined in 2006, they have been in use for thousands of years. But it was the discovery of DDT’s insecticidal properties in 1939 that really ushered in the modern era of pesticide use.

Mass production of DDT, and its introduction to agriculture began in earnest in the 1940s, quickly accompanied by other HHPs, including organophosphates, carbamates and phenoxy herbicides like 2,45-T and 2,4-D.



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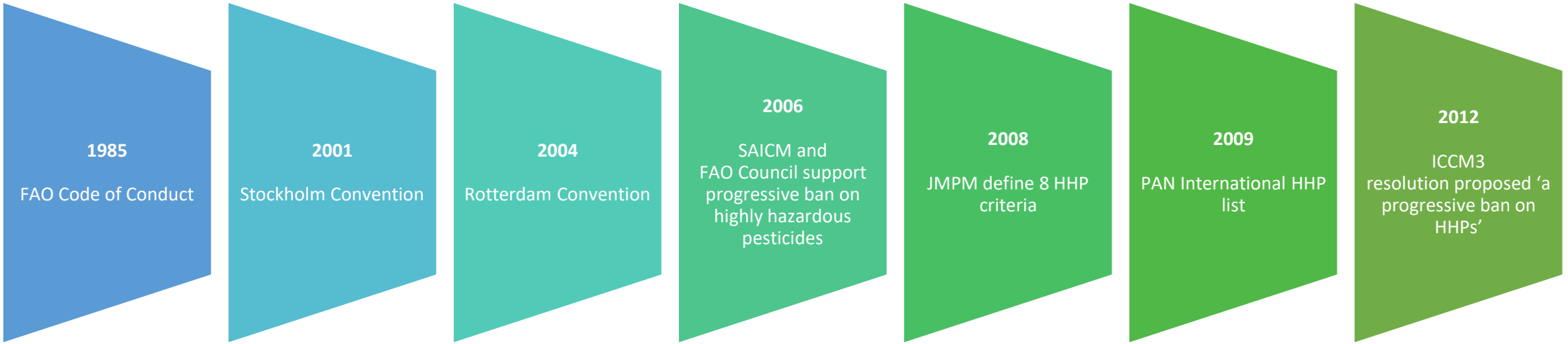
Global governance timeline



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Multilateral Environmental Agreements (MEAs)

	Year	Scope	Objectives	Limitations
Rotterdam Convention on Prior Informed Consent (PIC)	2004	Banned or restricted chemicals & severely restricted pesticide formulations	Improved information concerning imports & exports: only allowed when there is prior informed consent	• Listing is not a ban • Listing requires a unanimous decision, so it can be blocked by a single Party
Stockholm Convention on Persistent Organic Pollutants (POPs)	2001	See guidance notes for listed pesticides. They are mostly obsolete but endosulfan, dicofol, lindane, pentachlorophenol are still in limited use	Ban & phase-out of production & use of POPs Waste management of stockpiles (obsolete pesticides), incl. clean-up of contaminated soil	• Few new pesticides likely to be listed • Each pesticide takes > 3 years to be listed after nomination by a Party • No penalties for violation
Montreal Protocol on Substances that Deplete the Ozone Layer	1987	Ozone depleting substances	Phase out of production & use of ODS to protect the ozone layer & allow for its recuperation	• Methyl bromide is the only pesticide addressed by the Montreal Protocol

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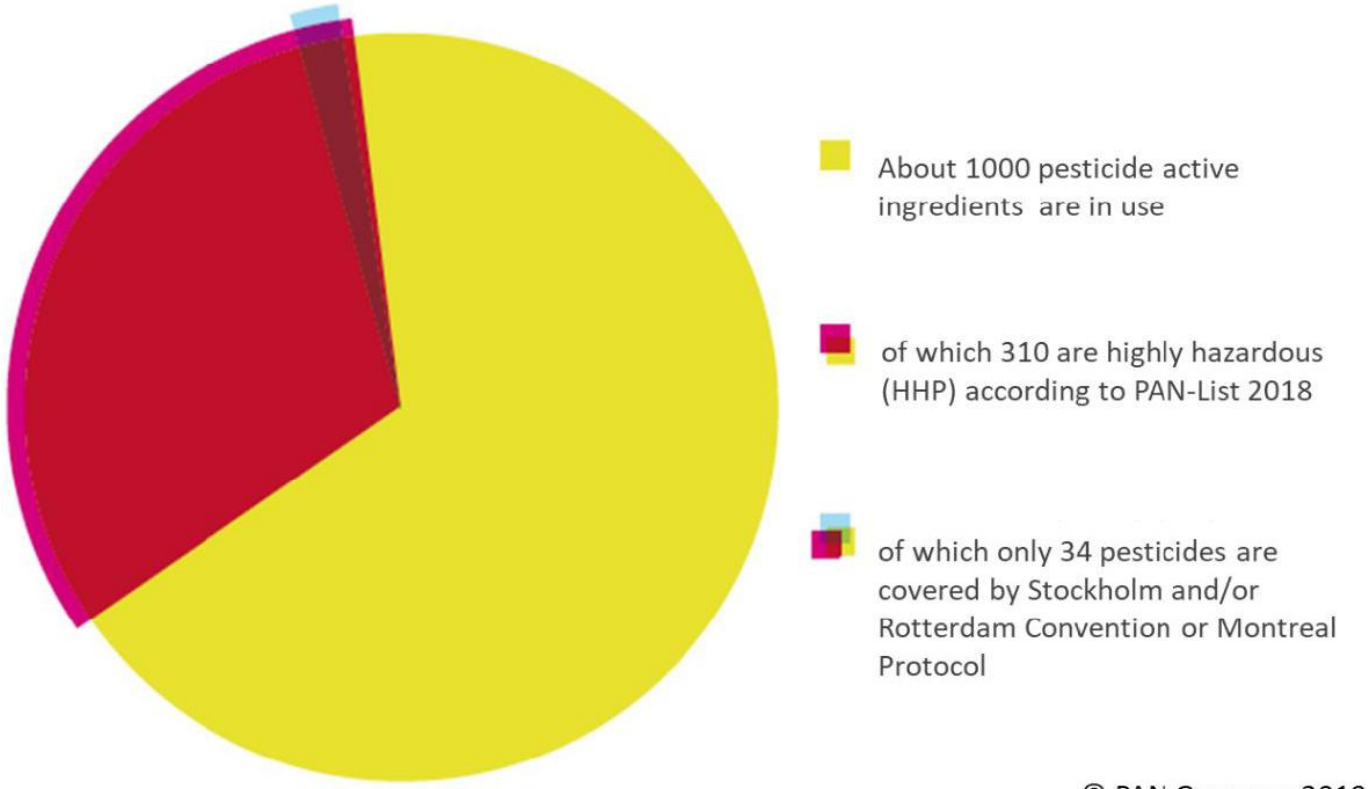
Internationally recognised legally binding regulations only cover 3.4% of all pesticides in use.



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SDGs and HPPs

Importance of sound management of chemicals in contributing to the 2030 Agenda for Sustainable Development

- specific target under SDG 12
- referred to under SDG 3 and SDG 6
- contributes to many others, if not all, SDGs

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SAICM

The Strategic Approach to International Chemicals Management (SAICM) is a multi-sectoral process under UNEP.

SAICM is not a legally binding treaty. It constitutes a broad global non-binding multi-stakeholder commitment which aims to foster sound management of chemicals, including pesticides.

In 2006, SAICM was agreed at the first International Conference on Chemicals Management (ICCM1) in Dubai

'*The need to take concerted action is accentuated by a wide range of chemical safety concerns at the international level, including ... dependency on pesticides in agriculture*'

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SAICM, FAO and HPPs

SAICM texts have drawn attention to the problems with pesticides in general, highly hazardous pesticides in particular, and the need to replace them with safer alternatives. The focus has been on 'phasing out highly toxic pesticides' rather than attempting to mitigate risks to end users through safety measures such as PPE and training, which is much less effective.

In 2006 the FAO Council recognised for the first time that certain pesticides could not be used without harm in developing countries, and responded to SAICM by recommending that:

"*In view of the broad range of activities envisaged within SAICM, the Council suggested that the activities of FAO could include risk reduction, including the progressive ban on highly hazardous pesticides, promoting good agricultural practices, ensuring environmentally sound disposal of stock-piles of obsolete pesticides and capacity-building in establishing national and regional laboratories.*"

FAO (2006): Report of the Council of FAO, 131st Session, Rome, 20-25 November 2006 (CL 131/REP).

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Defining HPPs

Eight criteria agreed by JMPM in 2008

1. Pesticide formulations that meet the criteria of classes Ia or Ib of the WHO Recommended Classification of Pesticides by Hazard; or
2. Pesticide active ingredients and their formulations that meet the criteria of carcinogenicity Categories 1A and 1B of the Globally Harmonized System on Classification and Labelling of Chemicals (GHS); or
3. Pesticide active ingredients and their formulations that meet the criteria of mutagenicity Categories 1A and 1B of the Globally Harmonized System on Classification and Labelling of Chemicals (GHS); or
4. Pesticide active ingredients and their formulations that meet the criteria of reproductive toxicity Categories 1A and 1B of the Globally Harmonized System on Classification and Labelling of Chemicals (GHS); or

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Defining HPPs

Eight criteria agreed by JMPM in 2008

5. Pesticide active ingredients listed by the Stockholm Convention in its Annexes A and B, and those meeting all the criteria in paragraph 1 of Annex D of the Convention; or
6. Pesticide active ingredients and formulations listed by the Rotterdam Convention in its Annex III; or
7. Pesticides listed under the Montreal Protocol; or
8. Pesticide active ingredients and formulations that have shown a high incidence of severe or irreversible adverse effects on human health or the environment.

The eight criteria are listed in the FAO/WHO (2016) Guidelines on Highly Hazardous Pesticides

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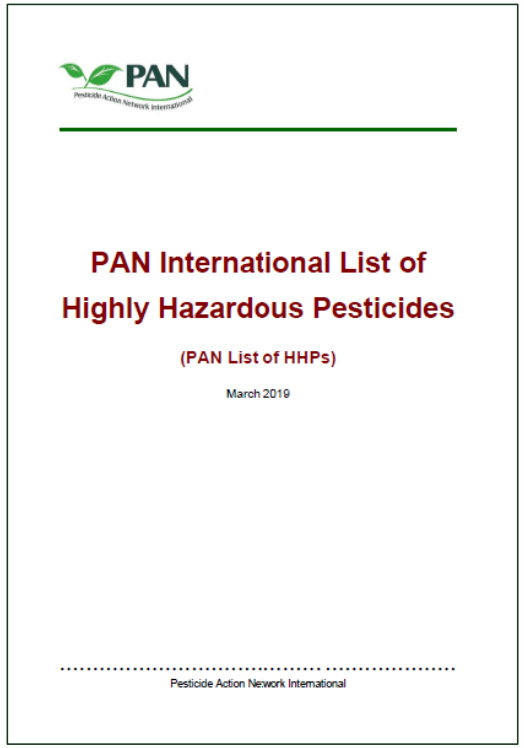
Lists of HPPs

Once JMPM had defined HHPs using eight criteria, they recommended that FAO and WHO develop a list based on these criteria, to be updated periodically in conjunction with UNEP. To date this has not been done. Instead, FAO works with individual countries and regions to help them identify HHPs.

In 2009 PAN International began producing its List of Highly Hazardous Pesticides in order to fill this gap and support governments and others to take action. PAN's list includes the JMPM criteria and adds a few more concerning endocrine disruption, bee toxicity, and aquatic toxicity.

http://pan-international.org/wp-content/uploads/PAN_HHP_List.pdf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PAN International List of Highly Hazardous Pesticides

(PAN List of HHPs)

March 2019

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SAICM and HHPs continued

The next milestone for SAICM on HHPs came in **2012 at ICCM3** in Nairobi, when a resolution for "a progressive ban on HHPs and their substitution with safer alternatives" was supported by 65+ countries and organizations. The resolution was not adopted, however.

Since 2012 three of the intercessional regional SAICM meetings reiterated concern about HHPs and called for more information on ecosystem-based approaches to pest management as alternatives to HHPs.

In Dec 2014 the Africa region called for a Global Alliance to Phase-out HHPs. Unfortunately commitments on this were not delivered at ICCM4.

ICCM4 supported " concerted action on HHPs", and encouraged an "emphasis on promoting agroecologically based alternatives and strengthening national regulatory capacity"

FAO is now (2020) developing a Global Plan of Action that will be shared with SAICM, perhaps through the intercessional process, and at ICCM5.

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HHPs and UNEPs

In September 2020, UNEP published *An Assessment Report on Issues of Concern*

https://wedocs.unep.org/handle/20.500.11822/33807

The report identified the need to:

- strengthen international support for developing and transition countries, possibly through legally binding instruments and partnerships
- increase research and development of safer alternatives, particularly non-chemical alternatives such as agroecology techniques that minimise chemical uses and methods such as integrated pest management, and making them available, accessible and visible to farmers across the globe
- revisit national, regional and international legal frameworks for sound pesticide management, including trade, liability, sustainable use of pesticides, and integrated pest management; to do so, strong coordination and leadership at the international level is necessary

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HHPs and human rights

Several UN Special Rapporteurs have addressed human rights and HHPs.

UN Special Rapporteurs Hilal Elver and Baskut Tuncat, reported to the Human Rights Council in 2017 stating:

- Exposure to pesticides can have severe impacts on the enjoyment of human rights, in particular the right to adequate food, as well as the right to health.
- The right to food obligates States to implement protective measures and food safety requirements to ensure that food is safe, free from pesticides and qualitatively adequate.
- Human rights standards require States to protect vulnerable groups, such as farm workers and agricultural communities, children and pregnant women from the impacts of pesticides.

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HHPs and human rights

Recommendations:

- The international community must work on a comprehensive, binding treaty to regulate hazardous pesticides throughout their life cycle, taking into account human rights principles.
- Regulate corporations to respect human rights and avoid environmental damage during the entire life cycle of pesticides

https://undocs.org/A/HRC/34/48

P.11-13 OF BRIEFING NOTES

HHPs and human rights

In October 2020, the new UN Special Rapporteur on human rights and hazardous substances and wastes, Marcos A. Orellana, made the following statements:

- “Regrettably, the, current practice of wealthy countries exporting highly hazardous pesticides and toxic industrial chemicals, which are banned on their home soil, to poorer nations lacking the capacity to control the risks, perpetuates global environmental injustice.
- States have a duty to "prevent and minimize" exposure to hazardous substances to protect against preventable diseases and disabilities.
- The most vulnerable in society continue to find themselves on the wrong side of a toxic divide…. More often than not, they are "legally poisoned" by "permissible limits" of toxic exposures that do not account for human rights protections.
- The need for a human rights approach to hazardous substances and wastes is today more pressing than ever.

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HHPs and human rights

In 2018, PAN Asia Pacific published findings on the impacts of HHPs in 7 Asian countries. It found widespread use of HHPs and human rights violations:

- **The right to life and health:** The Universal Declaration on Human Rights, Article 25 "Everyone has the right to a standard of living adequate for the health and well-being of himself and of his family."
- **The right to freedom of information and right to know** - United Nations General Assembly in its resolution 59(I)
- **The right to a safe working environment and labour rights** - ILO Convention 184
- **Children's rights** - Article 32 of the UN Convention on the Rights of the Child
- **Women's rights** - Article 11 of the UN Convention on the Elimination of All Forms of Discrimination against Women
- **Indigenous people's rights** - UN Declaration on the Rights of Indigenous Peoples

https://panap.net/resource/of-rights-and-poisons-accountability-of-the-agrochemical-industry/

Children in Thiruvallur District, Tamil Nadu, India are exposed to Highly Hazardous Pesticides while playing near flower fields that surround their community

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Please do look at the accompanying briefing notes for more information and links to other resources

Thank you

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