

Executive Summary.

Overview

Chemical pollution presents a substantial global threat to human and ecological health, and to children especially.

Under European and United Nations (UN) treaties, the European Union (EU) and its member states have a legal duty to protect the rights of children, defined in law as all persons under the age of 18 years.

Taking a rights-based perspective, this report describes the harms that hazardous chemicals cause to children and makes recommendations for their progressive elimination, while also enabling children to shape policy and seek redress. As the EU regulatory framework undergoes much-needed reform, we hope that this report will support stakeholders to put the rights of children first.

Hazardous chemicals

Worldwide, at least 1.8 million deaths annually are caused by hazardous chemicals.¹ These are compounds that may have carcinogenic, mutagenic or reprotoxic properties, or lead to lasting damage to the endocrine systems of humans and wildlife. They also include (but are not limited to) substances that may resist bio-degradation and can accumulate in and travel through the environment, particularly through water sources.

In the EU, approximately 200 million tonnes of chemicals hazardous to health are consumed annually.² Around 100,000 synthetic chemicals are believed to be on the market. Only 500 of these have been extensively characterised, and approximately 70,000 remain poorly understood.³ In the EU, studies have identified “alarmingly high” human exposure to multiple harmful substances.⁴

¹ Fuller, R. et al., [Pollution and health: a progress update](#), Lancet Planetary Health, June 2022.

² Eurostat, [Chemicals production and consumption statistics](#), data extracted in December 2022.

³ EEA, [The unknown territory of chemical risks](#), 2019; EEA, [The European environment - state and outlook 2020: Knowledge for transition to a sustainable Europe, Chapter 10: Chemical Pollution](#), December 2019.

⁴ HBM4EU Conclusions, reported by Vito, [All Europeans are exposed to chemical substances](#), May 2022.

Impact on children

Hazardous chemicals carry a disproportionate impact on children, who are more sensitive to the health effects involved. Exposure to even minimal concentrations of certain substances can cause irreversible harm to children's health and development, leading to neurological disorders and lasting disruption to the body's essential systems.⁵ Babies are born pre-polluted and certain health effects can be passed from one generation to another. Secondary, social and economic effects resulting from family illness and environmental degradation also tend to affect children disproportionately.

Children in marginalised demographics suffer the greatest harms of all, due to the reduced resilience to ill-health associated with economic deprivation, particularly malnourishment. In low - and middle - income countries, where 92% of pollution-related deaths worldwide occur, the most vulnerable children find themselves at the front line of an increasingly contaminated planet. A similar pattern of disparity is also seen across the EU and within its member states, which maintain their own "sacrifice zones" where pollution and poverty come together.

Children's rights

Regional and international treaties confer a legal duty on states and intergovernmental organisations, among others, to protect and promote children's rights. In respect of chemicals, the EU and member states are responsible for progressively protecting all children against harmful exposure.

As matters stand, the ongoing proliferation of hazardous chemicals infringes a wide range of children's rights recognised by EU and international law. Among these are the rights to life, to health, to bodily integrity, and to a healthy environment, as well as the rights to play and to develop, and the right of children to be heard in all matters that concern them. In addition, the disproportionate impact of hazardous chemicals on marginalised children violates their right to be free from discrimination.

⁵ Vandenberg, L. et al., [Hormones and endocrine-disrupting chemicals: Low-dose effects and nonmonotonic dose responses](#), June 2012.

Weak controls

According to UN Special Rapporteurs David Boyd and Marco Orellana:

"[A]lthough an extensive body of international law and several voluntary instruments adopted by international organisations address pollution and toxic substances, their effectiveness is undermined by many major gaps and weaknesses, including the fact that none of them mention human rights, the vast majority of toxic substances are not controlled, few nations are fulfilling all of their obligations, and many instruments lack adequate enforcement tools."⁶

Despite some progress over the past two decades, this is also true of EU chemicals legislation. This report presents evidence of multiple infringements of children's rights caused by continuing exposure to hazardous chemicals under the existing regulatory framework. Fundamentally, the framework remains permissive in many areas and insufficiently enforced. In particular, it fails to take due account either of the disproportionate risks that children face or their additional legal rights of protection.

Reform: A rights approach

Our societies need to stop polluting children and their environment. Without action now, the harms will only increase, as the use of chemicals in manufacturing increases and persistent substances accumulate in the environment. Effective legislative reform in the EU and its member states is essential to safeguard children living in the European Union while also helping to raise standards worldwide.

As is their legal right, children's best interests should always be a primary consideration in guiding reform of EU chemicals legislation. It follows that the explicit, ambitious aim of the progressive elimination of children's exposure to harmful chemicals should set the direction of legislative reform.

The Chemicals Strategy for Sustainability (2020) and the Strategy on the Rights of the Child (2021) offer a promising beginning to legislative reform that could uphold children's rights. But reform has been slow and at risk of stagnation. Industry has sought to dilute enhancements to restrictions.

⁶ Orellana, M., UN Special Rapporteur on toxics and human rights, Boyd, D., UN Special Rapporteur on Human Rights and the Environment, [The right to live in a non-toxic environment](#), March 2022.

Pivotal proposals have been shelved, such as the adoption of a long-overdue export ban on prohibited substances, and a much-needed review of the EU overarching chemicals law, REACH.⁷

While reform stalls, children pay the price - in harm to their health and environment, and in the denial of their rights. Wider impacts on national health services, economies, and social wellbeing, are also substantial.

Recommendations

CRIN offers the following recommendations to centre the rights of children in legislative reform:

Integration of children's rights.

Children's rights, and the legal duties on the EU and member states that arise from them, should be recognised explicitly and comprehended fully in the reform process. Human rights should be the compass, not the afterthought.

"No data, no market". Chemicals continue to be placed on the market with inadequate safety data. Legislation must better enforce the principle of "no data, no market", which lays the burden of proof on chemical industries to show beyond doubt that substances pose no harm.

Hazard management. A precautionary approach demands that regulations assume a maximalist approach to safety, applying the highest standards in the assessment, restriction, and management of chemicals. The following practical measures would support this principle:

- *Assessment by group.* Substances may be grouped for efficient assessment rather than evaluated separately, which is so time-consuming as to be impractical.
- *Generic risk.* A generic risk approach should be the norm, meaning risk management measures should be automatically triggered based on the hazardous properties of the chemical and generic exposure considerations.
- *Combination effects.* Moving away from the outdated and isolating evaluation of single substances, the combined effects of chemicals should be better addressed, as children can be exposed to a single chemical coming from different sources or to a mixture of different chemicals. The fact that certain chemicals may combine, amplifying their adverse impacts and producing unexpected harmful effects, deserves greater salience in precautionary decision making.

⁷ The Guardian, [EU abandons promise to ban toxic chemicals in consumer products](#), October 2023.

- *Limited exceptions.* In very limited cases, hazardous chemicals should be permitted temporary, time-bound exemptions only when independently assessed to be unambiguously essential to society, while safe substitutes are sought.
- *Export ban.* The EU must not allow chemicals it has prohibited in the Union to be exported to non-EU countries. Children must be protected against harmful exposure irrespective of where they live. Double standards in tackling harmful chemicals are unacceptable.

Enforcement. Enforcement measures must be strengthened and enhanced. The legal liability of industry should be extended to include all forms of contamination of children and their environment. Children should be able to seek redress in court; their access to justice has been denied too often, fostering industry impunity.

Conclusion

The UN Special Rapporteur on toxics and human rights and the UN Special Rapporteur on human rights and the environment have together warned:

“Given humanity’s trajectory on toxics, climate change, and biodiversity loss, the planet is at risk of becoming a human sacrifice zone. But the transformative potential of the right to a toxic free environment can help us keep our planet habitable.”⁸

This is the context in which the EU has promised to be a frontrunner, in the hope of a safer, healthier future for people and the planet. It is time to encode that promise in legislation, and so end the chemical contamination of children's lives.

⁸ Orellana, M., UN Special Rapporteur on toxics and human rights, Boyd, D., UN Special Rapporteur on Human Rights and the Environment, [The right to live in a non-toxic environment](#), March 2022.