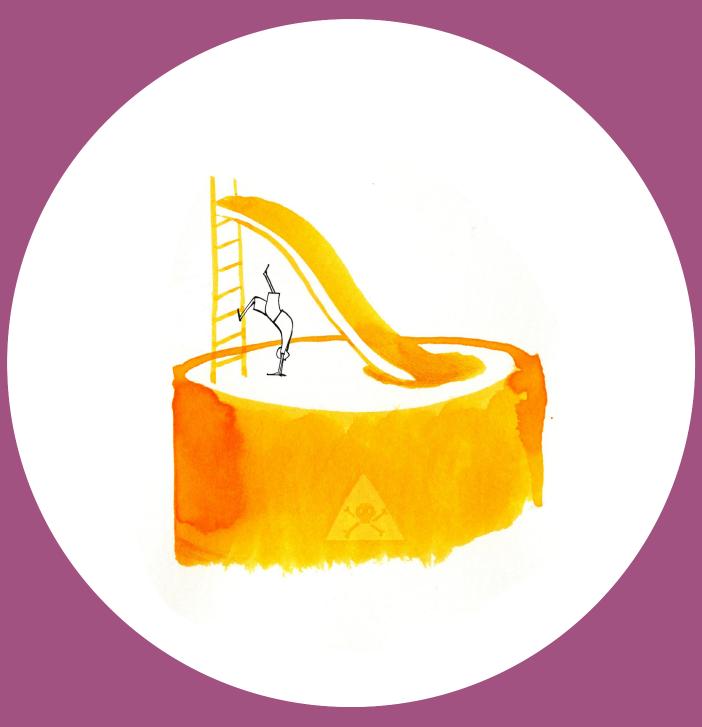
Children's Rights and Hazardous Chemicals:

Strengthening legislation in the European Union •



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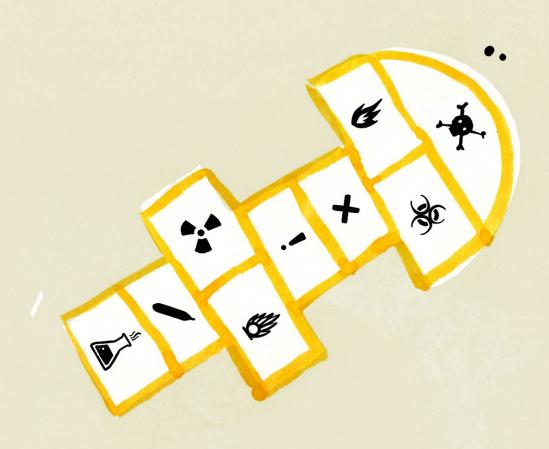
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Executive Summary.

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

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. 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.

Weak controls

According to UN Special Rapporteurs David Boyd and Marco Orellana:

"[A]Ithough 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."

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. 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.
- 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."

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.

Acronyms and definitions.

Substances

Bisphenols (including Bisphenol A and S, BPA and BPS): A family of substances with a similar chemical structure used to produce polymers and resins, often used in plastic manufacturing. Due to their hazardous properties, the use of some bisphenols is restricted or being limited in the EU.

Carcinogenic, mutagenic or toxic to reproduction (CMR) substances:

those substances that present carcinogenic, mutagenic or reprotoxic properties. Carcinogenic chemicals may induce cancer or increase its incidence. Mutagenic chemicals can cause genetic mutations, meaning heritable genetic defects, or increase their incidence. Reprotoxic chemicals can damage the reproductive process, so they may produce or increase the incidence of nonheritable adverse effects in the progeny and/or an impairment of male or female reproductive functions or capacity.

Endocrine disrupting chemicals (EDCs):

A large group of chemicals that may interfere with the hormonal system and harm humans and wildlife. A wide range of natural and artificial substances may cause endocrine disruption, sometimes long after exposure. In some cases, the effects of foetal exposure can last into adulthood and possibly also future generations.

Per- and polyfluoroalkyl substances (PFAS): A large class of thousands

of synthetic chemicals containing very strong, carbon-fluorine bonds, which resist degradation. PFAs are easily transported in the environment, often over long distances, becoming environmental pollutants associated with harmful effects on health.

Phthalates: A family of synthetic chemicals widely used in consumer and industrial products. They can be found almost everywhere in our environment. Those phthalates that have been studied include some that cause harm to health by, for example, interfering with hormonal systems and contributing to allergies.

Legal instruments and bodies

CLP: The Regulation on Classification, Labelling and Packaging of Chemicals (EU)

CSS: Chemicals Strategy for Sustainability (EU)

ECHA: European Chemicals Agency (EU)

ECHR: European Convention on Human Rights (Council of Europe)

EEA:

- European Economic Area (the European Union, Iceland, Liechtenstein and Norway)
- European Environment Agency (EU)

ESC: European Social Charter (Council of Europe)

EU Charter: Charter of Fundamental Rights (EU)

EU: European Union

HBM4EU: European Human Biomonitoring Initiative (EU)

ICCPR: International Covenant on Civil and Political Rights (UN)

REACH: Regulation on the registration, evaluation, authorisation and restriction of chemicals (EU)

SDGs: Sustainable Development Goals

TEU: Treaty on European Union

TSR: Toy Safety Regulation (EU)

UNCRC: United Nations Convention on the Rights of the Child

UNCRPD: United Nations Convention on the Rights of Persons with Disabilities

WHO: World Health Organisation





Introduction.

A global challenge

Chemical pollution is a growing, global health and environmental threat. One in six deaths worldwide - nine million people per year - are now attributable to various pollutants. Hazardous chemicals alone are estimated to account for 1.8 million deaths each year globally, which is likely an underestimate. In the European Union (EU), studies have identified "alarmingly high" internal human exposure, especially in children, with large sections of the European population exposed to multiple substances.

Accordingly, exposure to harmful chemicals constitutes one of the most significant health and ecological threats globally. The problem also threatens the resilience of the global economy and public healthcare systems, reducing the global gross domestic product by 2% and accounting for 7% of healthcare costs. ¹² As the largest industrial energy consumer and the third-largest industry subsector in terms of direct CO2 emissions, the chemical

industry is one of the largest emitters of greenhouse gas emissions worldwide¹³ while also contributing substantially to air and water pollution.¹⁴

While harmful chemicals is a global problem, this report focuses on the EU because of key ongoing and upcoming opportunities to revise EU chemicals legislation. Strengthening legislation in the EU could ultimately influence efforts to better tackle hazardous chemicals worldwide, which will be crucial as chemical pollution knows no boundary.

This report predominantly addresses exposure to substances which present, or are suspected to present, hazardous properties, thus harming human health and the environment. This report focuses on the exposure to hazardous substances and the pollution which can stem from the inappropriate management of these substances. In that context, a substance means a chemical element and its compounds in the natural state or obtained by any manufacturing process.

Impacts on children

The problem has a markedly disproportionate impact on children, defined by the UN Convention on the Rights of the Child (UNCRC) as all persons under the age of 18 years. Children are more susceptible to harmful chemicals than adults on account of their smaller bodies and behavioural habits. Thildren play on the ground, in watercourses, exploring the physical world through touch and taste. Exposure can also occur before birth, during foetal development, leading to the phenomenon of "pre-polluted" children, and susceptibility remains elevated throughout childhood.

For several types of particularly harmful substances, such as heavy metals and endocrine disrupting chemicals (EDCs), it is likely that no level of exposure is safe. In children, even small exposures to substances of this kind can irreversibly alter brain development, leading to mental disabilities and harmful alterations to reproductive systems, metabolism, and stress response mechanisms.¹⁸

The global toll on children's lives is shocking. In 2012, the World Health Organisation (WHO) estimated that, annually, over 1.7 million children under the age of five - 26% of all infant mortality-were dying from modifiable environmental factors, such as water contamination. ¹⁹ Former Special Rapporteur (SR) on toxics and human rights, Baskut Tuncak, warned that those deaths "are only the tip of the iceberg", as there is a "silent pandemic" of disability and disease associated with

exposure to toxics and pollution during childhood, many of which do not manifest themselves for years or decades."²¹

Children's rights of protection

Consequently, exposure to hazardous substances directly affects children's fundamental and legally recognised rights. The UNCRC,²² ratified by every UN member state apart from the United States, recognises the rights of all children to have the best possible start in life, to grow up healthy, and to develop to their full potential.²³ Exposure to hazardous chemicals directly jeopardises this aim, violating children's legal rights to life, health, and bodily integrity. Indirect environmental degradation caused by these substances further infringes children's right to a clean, healthy and sustainable environment.²⁴

Despite laws and policies intended to regulate chemical safety, hazardous chemicals are still found everywhere: in food, air, water, and everyday products. In the EU, 196 million tonnes of hazardous chemicals were consumed in 2022.²⁵ Production has been increasing for a decade, reaching €872 billion in 2022.26 The EU has developed a large and complex body of relevant legislation, but it needs urgent strengthening to protect health and support the rights of children as a particularly vulnerable, typically overlooked population. As matters stand, children are living in a legal environment that is failing to protect them. The challenge of addressing this shortcoming is the focus of this report.

An opportunity

With the adoption of the Chemicals Strategy for Sustainability (CSS) in 2020, the EU now has an opportunity to address past failures by enhancing regulations and adopting new legislation to uphold children's rights more effectively.

Since adoption of the CSS, certain revisions of EU chemical legislation demonstrate some progress.²⁷
Nonetheless, pivotal reforms of chemicals laws remain on the waiting list, at risk of quiet abandonment. Several key revisions have been shelved indefinitely, notably the adoption of an export ban on substances prohibited in the EU and a much-needed review of the bloc's overarching chemicals law, REACH.²⁸ Children pay the price of delay, as the *status quo* continues to harm their health in contravention of their rights.²⁹ The EU must now deliver on its promises to revise its chemicals laws.

01

Harmful chemicals as a children's rights problem.

Prevalence of harmful chemicals

Every day, thousands of the chemicals used in manufacturing and sometimes ending up in the final products have hazardous properties, presenting immediate dangers to health as well as persistent risks through their accumulation and persistence in the environment, notably in water.³⁰ Chemicals can also affect ecosystems, harming aquatic life directly and even causing endocrine disorders in the wider ecology.³¹

In the EU, the European Environmental Agency (EEA) estimated that around 100,000 synthetic chemicals were on the market in 2019.³² Of these, only 500 have been extensively characterised for their hazards and exposures, while the effects of a further 70,000 remain poorly understood.³³

One example of fast-evolving knowledge on hazardous substances is endocrine disrupting chemicals (EDCs).³⁴ EDCs can mimic, block or interfere with hormones, leading to severe health issues, particularly for children, impairing their development, causing brain damage and increasing the

risk of cancers, obesity, and cardiovascular diseases.³⁵ 800 substances are known or suspected to be EDCs. Many are present in common consumer products, including food-contact materials, toys, cosmetics, hygiene products, and pesticides. Some estimates place the number of EDCs on the EU market at over 1,000, with more substances joining the list annually.³⁶

A European Parliament discussion paper encourages decision-makers to "adopt precautionary measures when scientific evidence about an environmental or human health hazard is uncertain and the stakes are high".³⁷ In a similar vein, the former UN Special Rapporteur on toxics and human rights Baskut Tuncak argued that "the best interests of the child are best served by preventing exposure to toxic chemicals and pollution, and taking precautionary measures with respect to those substances whose risks are not well understood".³⁸

A disproportionate impact on children

All humans are vulnerable to the effects of exposure to hazardous chemicals, but children are more susceptible than adults on account of their smaller bodies and particular behavioural habits.39 Children play on the ground and in watercourses. They explore the world through touch and taste.40 Children may be exposed to higher intake than adults, as they for instance breathe more often per minute.41They also consume more food and water relative to their body weight, absorb substances more readily, and are less able to excrete them afterwards through their underdeveloped organs, particularly the liver and kidneys. On account of their age, children are also less able to evaluate and react to the risks, for instance reading labels and adopting protective behaviours. As children are exposed to hazardous chemicals in multiple ways, the cocktail of substances can combine to amplify harm to health while reciprocally degrading natural resilience and extending vulnerability to further exposure.42

The science clearly shows that environmental exposure in early life can play a pivotal and irreversible role in children's health right into adulthood and even carry over to succeeding generations. ⁴³Harmful impacts include childhood cancers, ⁴⁴ IQ loss, ⁴⁵ asthma, ⁴⁶ diabetes, ⁴⁷ obesity ⁴⁸ and disruption in bone development. ⁴⁹

Contamination can also occur before birth, as children can be born "pre-polluted" due to their exposure during the foetal development⁵⁰ with irreversible effects.⁵¹

As mentioned by University of Florida's Senior Program Scientist Theo Colborn, "the development of each stage of life is fully under the control of hormones. Changes that happen during development are far less reversible [than those occurring in an adult]; you can't go back and rewire the brain." 52

In addition to harming children's health directly, ecological degradation caused by harmful substances jeopardises food security and long-term economic prospects of millions of children around the world, including across the EU.53 It also contributes to biodiversity loss.54 For instance, flame retardants, as environmentally persistent chemicals with serious health effects,55 have been linked to contamination of more than 100 species, including endangered species such as killer whales, northern sea otters, red pandas, and chimpanzees. This group of chemicals may even be responsible in part for population declines in some of those species.56 These ecological harms feed back to amplify the impact on children, by depleting the ecosystem on which their families depend for food and work.57

A significant indirect harm of hazardous chemicals lies in the financial burden they leave with children's families. In 2015, for example, a series of studies estimated that exposure to EDCs in the EU was likely costing €157 billion (\$209 billion) annually in health care expenses and lost earning potential.⁵⁸ Families, healthcare facilities, and local authorities have been footing the bill when the burden should be carried by businesses, in line with the "polluter pays" principle.⁵⁹

Compounded harm to marginalised children

Freedom from discrimination: Principle versus practice

The UNCRC (Article 2), European Convention on Human Rights (ECHR) (Article 14), and EU Charter on Fundamental Rights (Article 21) all prohibit discrimination unequivocally. The Charter also guarantees equality before the law (Article 20).

The EU Strategy on the Rights of the Child, adopted in 2021, further recognises that "every child in Europe and across the world should enjoy the same rights and live free from discrimination and intimidation of any kind", while accurately stressing that children continue to suffer from socioeconomic exclusion and discrimination.

In contrast to these legal standards, children in marginalised groups in the EU and globally experience continuous, discriminatory exposure to hazardous chemicals. They suffer a disproportionate impact also: while weaker regulations in poorer countries allow toxicity to persist and accumulate where children live, learn and play, poorer health associated with economic deprivation reduces resilience, particularly when children are malnourished. 92% of pollution-related deaths occur in low- and middle-income countries (LMICs).60 The EU Chemicals Strategy itself warns that chemical pollution is recognised to be a threat to the right to a life with dignity, notably for children, and in particular in LMICs.61

A review paper from the United States, published in 2023, is instructive. 62 Drawing on more than 200 studies, it analysed "disparities in toxic chemical exposures and associated neurodevelopmental outcomes". It found that racial and ethnic minority and low-income children are disproportionately harmed by exposure to neurotoxicants: substances that interfere with normal function or compromise adaptation in the nervous system. Emphasising an association between racial inequities, environmental exposures, and illnesses, the review concluded that effective actions must include measures to reduce structural inequities.

As the situation stands, decades and even centuries of colonialism, imperialism, wealth hoarding, systemic discrimination and corruption have led to a small percentage of communities worldwide owning most of the resources. Environmental and health crises, including climate change and pandemics, further entrench discrimination against marginalised children, exacerbating vulnerability further.

Europe is similarly affected by patterns of discrimination and oppression. Many children on the continent are severely affected by chemical pollution, such as those in farming families or living near chemical plants, who may already be socio-economically marginalised and thus less able in general to avoid the hazards, cope with them, obtain suitable health support, or access avenues for redress. 63 In 2016, Baskut Tuncak stressed that "children who live in or around locations of widespread pollution or contamination may [also] be subject to painful harassment and discrimination". 64



Children in "sacrifice zones"

The UN Special Rapporteur on human rights and the environment David Boyd has warned of the environmental injustices that culminate in "sacrifice zones".65 These extremely contaminated areas include, for example, concentrations of open-pit mining, smelters, refineries, chemical plants and waste dumps, which tend to be near economically marginalised communities, including in the EU. Here, warns David Boyd, "vulnerable and marginalised groups bear a disproportionate burden",66 such that states and businesses must do more to prevent pollution, including by eliminating the use of toxic substances and rehabilitating contaminated sites.67

Children suffering from exposure in sacrifice zones tend to endure other forms of pollution disproportionately also. Within EU countries, poorer communities are more likely to live in areas with the worst air pollution, for example. Between countries, those with the lowest income tend to be most affected by pollutants in general. Both illustrate structural environmental injustice in the bloc.⁶⁸

Principles of protection

Protecting marginalised children from harmful chemicals is not only a matter of mitigating the impact; it also requires prevention and remedy. The drivers of marginalisation itself must be faced, such as the discrimination that is baked into housing/zoning plans, for example, and barriers to healthcare, justice, and compensation. Supporting the most affected communities facing chemical pollution means for the EU, governments and companies to undertake a broad set of actions, including the prevention of chemical pollution, its mitigation as well as its remediation.

02

Efforts to regulate: progress and problems.

EU regulatory mainstays and their shortcomings

Throughout its existence, the EU has developed an important body of chemical legislation including, since 2007, the wideranging Regulation on the Registration, Evaluation, Authorisation and Restriction of Chemicals, known as REACH.69 The Regulation on Classification, Labelling and Packaging of Chemicals (CLP) aims - among its other purposes - to determine whether substances or mixtures display hazardous properties. Together, REACH and CLP frame several further laws to regulate specific products and uses of substances, such as rules on toy safety, substances in contact with food, as well cosmetic and personal care products.

These texts contain serious shortcomings in effectively assessing and managing chemicals, especially in restricting the most harmful substances. In 2019, the Council of the European Union acknowledged

"the importance of reviewing and revising, as appropriate, existing testing requirements to ensure that health objectives of particular relevance for children and other vulnerable groups are adequately, consistently and coherently addressed (e.g. neurotoxicity, impacts on immune system, endocrine disruption, toxicokinetics etc.) across EU chemicals legislation".⁷⁰

The Council recognised the need to develop a "relevant mechanism coordinating the protection of vulnerable groups such as children and pregnant and breastfeeding women". This was to include consistent risk-management requirements in relevant EU legislation regarding substances of concern, including neurotoxins and EDCs.⁷¹

The European Parliament has also repeatedly called on the European Commission to address concerns over children's harmful exposure to hazardous chemicals. In 2020, Parliament called for regulatory measures to "adequately protect vulnerable groups such as children, pregnant and breastfeeding women or elderly people".72 It urged the Commission to adopt "a cross cutting definition of vulnerable groups, and propose if appropriate, to adapt accordingly current scientific assessment approaches, as well as to align to the highest standards the protection of vulnerable groups throughout all chemical legislation".73

Parliament further asked the Commission to give "particular attention to chemicals that accumulate and persist in bodies, those that are transmitted to children through pregnancy or breast milk, and chemicals that can have effects across generations".⁷⁴

The Chemicals Strategy for Sustainability (2020)

In 2020, to update existing legislation and fill the gaps, the Commission issued a far-reaching plan for reform as part of the Green Deal: the Chemicals Strategy for Sustainability (CSS). The new strategy promised to revise key components of chemical legislation such as REACH and CLP, as well as sectoral regulations, such as those governing toys and cosmetics. The Commission also recognised explicitly that "vulnerable population groups - such as children, pregnant women and elderly people - are particularly sensitive to chemicals with certain hazardous properties".75

The CSS stressed that, to protect health, in particular that of vulnerable groups, the existing EU chemicals policy must evolve and respond more rapidly and effectively. It also committed to ensuring the safety of children from hazardous chemicals in childcare articles and to extend regulations governing chemicals in toys to other children's products. The Commission further promised that children's right to health would be also addressed in the new EU Strategy on the Rights of the Child.

The EU remains far from fulfilling these promises, but has made some progress:

- In December 2023, EU institutions adopted a provisional agreement on the revision of the CLP rules which clarifies standards on classification and labelling, including new hazard classes for EDCs and persistent and mobile chemicals.⁷⁶
- The Commission proposed an ambitious regulation on toy safety (TSR) in July 2023 to replace outdated standards.⁷⁷ This text is to be amended, debated and adopted in the Parliament and the Council on a date scheduled tentatively for 2025.
- A proposal for a wide-ranging restriction on highly persistent chemicals known as per- and polyfluoroalkyl substances (PFAS) was published in 2023 and is currently being analysed by the European Chemicals Agency.
- Research and scientific projects have been funded at the EU level, including via Horizon Europe. For example, the EURION project is helping to improve identification of EDCs and the European Human Biomonitoring Initiative (HBM4EU) is informing safer chemical management practices.⁷⁸

Key promises remain unfulfilled, notably those of the Restrictions Roadmap (2022),⁷⁹ which describes ongoing and future work under REACH including several new restrictions on highly hazardous chemicals.⁸⁰ As stated by the European Environmental Bureau (EEB) and ClientEarth, although bisphenols, PFAS, phthalates, and flame retardants

are now under consideration, "most of these substances are likely to continue to be manufactured and used in the EU, to the detriment of our health and that of ecosystems, our economy and the broader state of the environment".81

The current chemical legislation framework also suffers from inconsistency. For instance, BPA is currently prohibited from baby bottles but not other plastics, such as toys. 82 Only a thorough revision of all relevant chemicals laws can harmonise such inconsistencies, bringing predictability to the assessment and management of all chemicals across products and sectors.

Unfortunately, several pivotal revision proposals are being delayed or dropped. The goal of the cornerstone revision of REACH, promised by the CSS, is to achieve a toxic-free environment. The Commission itself has stressed that achieving the goals of the Green Deal requires revision of the rules governing the registration, evaluation, authorisation and restriction of chemicals in the EU.⁸³

Despite the importance of this revision, the Commission decided in autumn 2023 to shelve it for an undefined period.⁸⁴ This decision has forestalled the development of a comprehensive system to review all harmful substances or chemical groups and to impose adequate restrictions on them.

This decision should be reversed and a new timetable identified for a full revision of EU chemicals legislation. Only this can improve clarity, predictability, coherence and harmonisation of the legislation across EU member states. It will also support research and innovation efforts towards greener, healthier solutions, while supporting the long-term resilience of our ecosystems, agriculture, food system, and economy.



In focus: PFAS, the 'forever pollutants'

Per- and polyfluoroalkyl substances (PFAS) include thousands of synthetic chemicals containing very strong, carbon-fluorine bonds, which resist degradation. Widely known as 'forever pollutants', PFAS are easily transported in the environment, often over long distances, and are associated with harm to human and ecological health.

Current EU chemical regulations are insufficient to prevent the continuing pollution of children and their environment by PFAS. The chemicals can have endocrine-disrupting properties⁸⁵ with significant impacts on foetal growth and foetal development with consequences for birth outcomes including preterm birth, children's development, and health into adulthood.⁸⁶ Harm following exposure can be irreversible and be passed from one generation to the next.⁸⁷

- In 2023, the Forever Pollution Project⁸⁸
 confirmed that up to 17,000 sites in
 Europe were contaminated by PFAS,
 and identified a further 21,500 sites
 presumed to be contaminated due to
 current or past industrial activity.
- In 2018, the EU Food Safety Authority (EFSA) found that exposure of a considerable part of the European population exceeded the provisional tolerable weekly intakes, even when based on estimates of low exposure.

Additionally, in 2020, the EFSA outlined in its scientific evaluation on the risks to human health related to the presence of PFAS in food⁸⁹ that "toddlers and other children had approximately twofold higher mean intake than older age groups".

- The research programme HBM4EU reported that higher maternal PFAS levels can be associated with an increased propensity for infections in children up to four years old. OA growing number of "PFAS hotspots" were also identified, where exposure was around 100 times the average and presented "a risk to human health".
- In 2022, a study examined self-reported diseases in mothers and their children living with contamination of perfluoroalkyl substances, finding that mothers with higher risk perception related to PFAS exposure reported more health issues and autoimmune disorders.⁹¹
- A large study conducted on Finnish pregnant people and published in 2023 revealed that prenatal exposure to some PFAS is associated with a higher risk of childhood leukaemia. This research found that children born in the late 1980s and early 1990s, when exposure levels to PFOS (a type of PFAS) were highest, had the highest risk of acute lymphoblastic leukaemia (i.e. the most common childhood cancer worldwide).⁹²

On the evidence, PFAS are widespread in Europe and lead to significant harms to children's health, family finances, and national economies⁹³ – costs that only grow as PFAS contamination continues.

In 2019, Milieu Consulting carried out a study on these costs in the European Economic Area (EEA), focusing on the costs borne by communities near chemical plants where PFAS has contaminated drinking water.94 The study estimated that 12.5 million people in the EEA living close to PFAS contamination were affected by elevated risks of all-cause mortality (meaning death due to any cause).95 As such, the most affected communities (particularly people living nearby PFAS manufacturing plants) suffered from higher mortality rates, and between 11,745 and 13,843 deaths in the EEA were directly linked to PFAS.96 The health-related costs of exposure of affected communities to PFAS represented an annual total of €41-49 billion,97 and the overall estimated cost of environmental remediation was very wide, ranging up to €170 billion.98

Just twelve companies are responsible for most PFAS production worldwide, at huge profit, ⁹⁹ and yet these contribute little to the costs of mitigation and remediation of their pollution.

In 2023, five EU member states collectively proposed to ban PFAS from a wide range of industrial and consumer uses. 100 The EU now has the opportunity to take up this restriction proposal as a bloc, in line with its

promises in the Child Rights Strategy and the CSS, which commits to phase out PFAS completely. As discussions continue, the chemical industry and conservative political groups are lobbying against change in hope of diluting the outcome. ¹⁰¹ The fight against PFAS pollution is far from over.

In 2023, media revealed that one of the largest PFAS manufacturers, Dupont/
Chemours, sought to hide their knowledge of the chemicals' harmful health effects. 102
The EU cannot rely on industry's diligence alone to protect its citizens.

The inaction of this company, who is aware of the damages PFAS cause, also outlined the lack of strong provisions regarding the control, enforcement and compliance with the obligations set out under several EU chemicals legislation, such as REACH. PFAS pollution occurred and is occurring while REACH was and is in force. An ambitious and thorough revision of REACH, including its restriction process, is urgent to prevent other harmful contamination from happening again.

► For further details, see CRIN's submission on the PFAS restriction proposal.

03

Chemical contamination as a violation of children's rights law in the EU.

Binding obligations

The EU is in serial breach of a wide range of children's rights enshrined in UN and European treaties by which its member states are bound. These include the following:

- Article 3(3) of the Treaty on European Union (TEU) identifies the promotion and protection of children's rights as a principal objective of the bloc and its member states.¹⁰³
- The UNCRC, binding on all EU member states, recognises in law children's civil, political, economic, social and cultural rights. Severally and jointly, these rights unambiguously preclude the chemical contamination of children, their families, and their environment. These principles must guide the work of the European Commission.¹⁰⁴
- The UN Convention on the Rights of Persons with Disabilities (UNCRPD), binding on all EU member states, sets minimum standards for rights of people with disabilities, including children.¹⁰⁵

- The UN Aarhus Convention, binding on the EU and its member states, guarantees access to information, public participation in decision-making, and access to justice in environmental matters.
- The European Convention on Human Rights (ECHR),¹⁰⁶ binding on 46 states including all EU members, guarantees a wide range of rights that are jeopardised by chemical contamination.
- As a counterpart to the ECHR, the European Social Charter (ESC)¹⁰⁷ guarantees fundamental social and economic rights, particularly civil and political rights.
- The Charter of the Fundamental Rights of the EU (EU Charter), enshrines a wide range of human rights and, in Article 24, specifically children's rights. The Charter's provisions bind the EU institutions and bodies in all their actions, as well as all national authorities when implementing EU law.



By ratifying these treaties, the EU and its member states recognise that children hold rights and commit to take measures to guarantee them in practice. This may involve reforming laws, providing resources and services, monitoring the impacts of social and environmental conditions on children, and developing institutions to promote and protect their rights more effectively. Regrettably, the EU's approach to chemical regulations has tended to overlook these instruments and commitments. 109

Of special relevance is the **EU Strategy** on the Rights of the Child adopted in 2021.¹¹⁰ This strategy focuses mainly on the realisation of rights enshrined in the UNCRC, Sustainable Development Goals (SDGs),¹¹¹ and the EU Charter of Fundamental Rights. We have used the strategy's themes,¹¹² with the addition of other instruments such as the Aarhus Convention and the European Social Charter, to construct a comprehensive, though not exhaustive, framework by which to examine the impact of hazardous chemicals on the rights of children.

Interconnections between respect of the children's rights framework and the fight against exposure to hazardous chemicals must better inform developing legislation in the EU and its member states.

Rights infringements: An overview of the evidence

Children's Rights

Connections between children's rights and exposure to hazardous chemicals

Case Study

Overarching principle: Children's best interests

UNCR:

- Art. 1: Definition of the child.
- Art. 2: Non-discrimination.
- Art. 3: Best interests of the child.
- Art. 6: Right to life, survival, and development.
- Art. 23: Children with disabilities and measures taken to ensure their dignity, self-reliance and active participation in the community, through access to all kinds of services, transportation and institutions, and in particular to education and cultural activities.
- Art. 25: Right to the enjoyment of the highest attainable standard of health.
- Art. 30: Children belonging to a minority or an indigenous group.

States and the EU are asked to put measures in place to allow children to survive into adulthood in conditions optimal for their development, including through combating child mortality, and providing healthcare, nutrition, sanitation and drinking water.

Available information¹¹³ speaks volumes on the risks harmful chemicals entail for children. Their exposure to hazardous chemicals have long-term and irreversible adverse effects on their health. Harmful impacts on children's health range from metabolic, endocrine and reproductive disorders, to diabetes, obesity, cancers and neurological deficiencies. Such exposure to hazardous chemicals violates children's rights, and those impacts have been internationally recognised.

Families and communities also need to be provided with the necessary support so that they can ensure children's wellbeing and development.

The EU must also respect and uphold the EU Charter, introduced by the Treaty of Lisbon, thus binding all member

Preterm birth and infant mortality after exposure to hazardous chemicals

Continuous exposure to thousands of chemicals throughout children's early life is associated with violations to the right to life, survival, and development. Early-age exposure to hazardous substances is linked to adverse impacts on reproductive systems of individuals, and can thus hamper their capacity to have children.

Scientific studies conducted on preterm birth and infant mortality outlined the link between early exposure to hazardous substances and increased risks of preterm delivery as well as infant mortality.

Preterm birth is now the leading cause of child mortality, accounting for more than 1 in 5 deaths under five years old. ¹²² In Europe, about 500,000 babies are born prematurely every year. ¹²³

Preterm survivors can face lifelong health consequences, with an increased likelihood of disability and developmental delays. This could be prevented

particularly formulated and

designed to be completely safe

for babies, infants and children.

Children's Rights	Connections between children's rights and exposure to hazardous chemicals	Case Study
UNCRPD:	states with the same legal value as EU treaties. Article	inter alia by reducing exposure to endocrine disruptors and,
 Art. 7: Inclusion of children with disabilities and the principle of non- discrimination. 	24 ¹¹⁴ guarantees and protects the rights and best interest of the child, including the right to protection and care. In all actions	more particularly, bisphenol A, phthalates, organochlorine and organophosphate pesticides, polybromines, lead. ¹²⁴ In the case
ECHR:	relating to children, whether taken by public authorities or	of phthalates, a recent study shows that halving the exposure
 Art. 1: Obligation to respect human rights. 	private institutions, the child's best interests must be a primary consideration.	of pregnant women reduces the risk of preterm birth by 12%. ¹²⁵
Art. 2: Right to life.	Moreover, the UNCRC must	17% of European children and adolescents are at risk from
 Art. 14: Prohibition of discrimination. 	guide EU action. Harmful exposure to hazardous chemicals unambiguously violates a	combined exposure to mixtures of phthalates, a substance linked to developmental and
European Social Charter:	wide range of children's rights set out in the UNCRC. The	reproductive illnesses. ¹²⁶ "All young people tested were found
 Art. 11: Right to protection of health. 	UNCRC recognises the right of all children to have the best	polluted, with around a quarter in one study beyond the level of
 Art. 13: Right to social and medical assistance. 	possible start in life, to grow up healthy, and to develop to their full potential. ¹¹⁵ In all actions	health concern", the HBM4EU study found. Phthalates are a group of industrial chemicals
 Art. 15: Right of persons with disabilities to independence, social integration and participation in the life of the community. 	concerning children, "whether undertaken by public or private social welfare institutions, courts of law, administrative authorities or legislative bodies, the best interests of the child shall be a	that are linked to a range of adverse health effects on sexual function, fertility, the reproductive system, and the prenatal and postnatal development. There is concern for children with regard
 Art. 16: Right of the family to social, legal and economic protection. 	primary consideration". ¹¹⁶ In his report focusing on children's rights in 2016, the	to testicular effects, fertility, and toxicity to kidneys. Children are exposed to several
Art. 17: Right of children and	former Special Rapporteur on toxics Baskut Tuncak provided	hazardous substances present in articles which should be

toxics Baskut Tuncak provided

a full analysis of children's

rights that are impacted by

toxic chemicals, including the

young persons to social, legal

and economic protection.

Connections between children's Children's Rights rights and exposure to hazardous chemicals Case Study

- Art. 30: Right to protection against poverty and social exclusion.
- Art. 31: Right to housing (of an "adequate standard" implies housing which is of an acceptable standard with regard to health requirements).
- Part V, Article E: Nondiscrimination.

EU Charter:

- Art. 2: Right to life.
- Art. 20: Equality before the law.
- Art. 21: Non-discrimination.
- Art. 23: Equality between women and men.
- Art. 24: The rights of the child (including Art. 24.2: Best interests of the child, and Art. 24.1.1: Right of the child to protection and care).
- Art. 26: Integration of persons with disabilities.

best interests of the child.¹¹⁷ He emphasised that the UNCRC makes it clear that States have an obligation to prevent exposure to toxics by children. He reminded that businesses must ensure their products do not contain toxic or otherwise hazardous substances, and deplored that industrial competitiveness, risk management options and cost-benefit considerations are prioritised over the best interests of the child.

In the Resolution on the realisation of the rights of the child through a healthy environment, the UN Human Rights Council urged the States to ensure the right of the child to the enjoyment of the highest attainable standard of physical and mental health, by inter alia: [...] Identifying and eliminating sources of exposure of children to substances of high concern, such as heavy metals and EDCs.¹¹⁸

In 2022, the Special Rapporteur on toxics Marcos Orellana warned that the use of plastic products exposes children to endocrine disrupting chemicals in toys or utensils and that the growing volumes of plastic waste imposes a debt on future generations. He outlined that hazardous chemicals added to plastics can also disrupt human procreation and even damage human DNA. As such

For instance, baby diapers are reportedly known to contain very harmful substances, including formaldehyde, PAHs, dioxins and furans. Data showed that 90% of European babies (i.e. 14.5 million babies) are being exposed to hazardous chemicals contained in their diapers every year. 127 The French Agency for food, occupational and environmental health and safety (ANSES) found 38 very hazardous substances, including EDCs, in diapers sold in Europe. 128

NGOs, experts, politicians and national agencies called on the EU to take action129 but the restriction on several hazardous substances in baby diapers proposed by ANSES130 was dropped by the EU in 2021.131 While the European Chemicals Agency (ECHA) recognised that these substances present potential risks and should not be present in baby diapers, the Agency concluded that the French authority proposing their restrictions failed to properly demonstrate a risk to children. 132

Since this decision of the EU to not restrict several hazardous chemicals from baby diapers, children continue to be contaminated on a daily basis with harmful substances those products contain and which are linked with irreversible impacts on their health and lives.¹³³

Children's Rights	Connections between children's rights and exposure to hazardous chemicals	Case Study

SDGs:

- Target 5.1: End all forms
 of discrimination against
 all women and girls
 everywhere. Target 5.c:
 Adopt and strengthen sound
 policies and enforceable
 legislation for the promotion
 of gender equality and the
 empowerment of all women
 and girls at all levels.
- Target 10.2: Empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion, or economic or other status.
- Target 10.3: Ensure equal opportunity and reduce inequalities of outcome, including by eliminating discriminatory laws, policies, and practices and promoting appropriate legislation, policies, and action in this regard.

"exposure of pregnant women to such hazardous substances can affect the health of their descendants".¹¹⁹

In 2023, the Committee on the Rights of the Child released General Comment 26 on children's rights and the environment. This highly anticipated guidance to states urged them to "address the adverse effects of environmental degradation, with a special focus on climate change, on the enjoyment of children's rights", including the right to a clean, healthy and sustainable environment. It acknowledged that younger children are particularly susceptible to environmental hazards, and that the effects of environmental contaminants may even persist in future generations. According to the Committee, States should consistently and explicitly consider the impact of exposure to toxic substances and pollution in early life.120 They should "consider all factors required for children of all different ages to survive, develop and thrive to their fullest potential and design and implement evidence-based interventions that address a wide range of environmental determinants during the life course".121

In November 2023, the ECHA published its investigation report on hazardous substances in childcare products (articles), based on information from 48 different sources. The Agency concluded that carcinogenic, mutagenic or toxic for reproduction (CMR) substances may be present in childcare articles such as toiletries, diapers, car seats, and mattresses. Some metals (e.g. cobalt, lead) and phthalates (e.g. DEHP) were among the most commonly found substances. This report will feed into and support the development of an EU-wide restriction proposal on these substances in childcare articles.134 To protect children's best interest, the restriction should therefore encompass the widest range of childcare articles possible, including (but not limited to) diapers and nappy related articles.

Children's Rights

Connections between children's rights and exposure to hazardous chemicals

Case Study

Children's participation in political and democratic life

UNCRC:

- Art. 12: Respect for the views of the child, right to be heard.
- Art. 13: Freedom of expression and the right to seek, receive and impart information.
- Art. 14: Freedom of thought.
- Art. 15: Freedom of association and of peaceful assembly.
- · Art. 42: Knowledge of rights.

UNCRPD:

 Art. 7.3: Right of children with disabilities to express their views.

Aarhus Convention:

- Art. 6: Public participation in decisions on specific activities.
- Art. 7: Public participation concerning plans, programmes and policies relating to the environment.
- Art. 8: Public participation during the preparation of executive regulations and/ or generally applicable legally binding normative instruments.

In all actions concerning children by EU institutions, including those related to their health, the views of the child must be given weight in accordance with the age and maturity of the child. Any decision relating to hazardous chemicals should be taken with reference to these factors.

UNCRC Article 12 enshrines the right of all children to be heard and have their views taken seriously in accordance with their age and maturity. Every child capable of forming their own views has a right to be heard and to influence decision-making processes that may be relevant in their life.

According to the Special Rapporteur Baskut Tuncak, the right to be heard is inextricable from public health and environmental threats such as toxics and pollution. This right is closely linked with the question of consent, and with the phenomenon of children being born "pre-polluted". 135 He called on countries to prevent childhood exposure, in recognition of the right of present and future generations to be heard. 136

The 4th thematic area of the EU Strategy on the Rights of the Child regarding "Child-friendly

Children's participation in shaping EU chemicals laws and policies

To prepare the EU Strategy on the Rights of the Child, the perspectives and priorities of more than 10,000 children and young people, from within and outside the EU were expressed throughout the report "Our Europe, Our Rights, Our Future". 139

This report outlined that "only one in four children [feels] that their rights are taken seriously" when it comes to the wider society or professionals, such as legal professionals. The report urged the mainstreaming of children's rights in all EU policies relevant to protecting the environment, including through formal mechanisms to support children's participation in discussions and decision-making on climate change.

Participating in decision-making on chemicals is particularly difficult for children, their parents as well as for NGOs defending civil society against harmful substances. Some of the most crucial decisions on health protection against hazardous chemicals are being negotiated and adopted between

Children's Rights	Connections between children's rights and exposure to hazardous chemicals	Case Study
ECHR: • Art. 10: Freedom of	justice", 137 states that in all cases, children should feel comfortable and safe to participate effectively	revolving doors. For instance, the process of trilogue, meaning the negotiations between EU
expression.Art. 11: Freedom of assembly and association.	in the proceedings. The Strategy indeed deplored that as it stands today, children's concerns are not	Commission, member states (Council) and Parliament on legislative proposals, is not
EU Charter:	sufficiently listened to, and their views are often not considered enough in matters important to	transparent and hardly open to stakeholders.
 Art. 24.1.2: Right of the child to express views. 	them. Children and young people have been at the forefront of	Corporate Europe Observatory (CEO) denounced in 2023 that these decisive negotiations on
 Art. 10: Freedom of thought. Art. 12: Freedom of assembly 	campaigning on the environment, but are frustratingly excluded from decision-making	decisions affecting all EU citizens take place in secret. ¹⁴⁰ "This opaque nature of the trilogue process is especially beneficial to
 and of association. Art. 22: Cultural, religious and linguistic diversity. 	processes. ¹³⁸	well-connected and well-funded lobbyists", CEO warned. 141 Civil society, including children, are
SDGs:		therefore under-represented and do not have proper access to information.
 Target 16.7: Ensure responsive, inclusive, participatory and representative decision- making at all levels. 		information.
 Target 16.10: Ensure public access to information (), in accordance with national legislation and international agreements. 		
 Target 4.7: Ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through 		

education for sustainable development and sustainable

Children's Rights	Connections between children's rights and exposure to hazardous chemicals	Case Study
lifestyles, human rights, gender equality, promotion of a culture of peace and nonviolence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development.		
	Socio-economic rights	

UNCRC:

- Art. 2: Non-discrimination.
- Art. 18: Parents' common responsibilities, assistance to parents and provision of childcare services.
- Art. 26: Right to benefit from social security.
- Art. 27.1-3: Standard of living and measures taken, including material assistance and support programmes with regard to nutrition, clothing and housing, to ensure children's physical, mental, spiritual, moral and social development, and to reduce poverty and inequality.

ECHR:

- Art. 8: Right to respect for private and family life.
- Art. 14: Prohibition of discrimination.

Despite existing international and EU chemical legislation, hazardous substances are still found in products and the environment and severely infringe those rights which should be protected equally. The EU and its member states fall short in guaranteeing child protection and their best interest.

Exposure to hazardous chemicals follows and feeds into a pattern of systemic discrimination, environmental racism and gender inequality, including in the EU (detailed in the section "Compounded harm to marginalised children" above). As stressed by the High Commissioner on Human Rights and the UN Environment Programme (UNEP), pollution - including from hazardous substances - "disproportionately affects persons, groups and peoples in vulnerable situations reflecting both historical and ongoing discrimination, racism, and power imbalances that have

Equal protection of all families

It is a matter of fact that children from the poorest families are more exposed to hazardous substances. For instance, poverty can intensify the risk of exposure to the worst pesticides. Children may help out on familyowned farms where hazardous pesticides can be used. 145 Based on estimates for the 2016-2020 period, agriculture accounted for the largest share of children in child labour. For the 5-17 age group as a whole in Europe and Central Asia, more than half of all children in child labour are found in agriculture, primarily consisting of family subsistence and smallholder farming.146 In addition, the poorest communities have less ability to address the health impacts of pesticides. As a study on children's environmental health in agricultural settings mentioned in 2018, "children in agricultural communities with contamination of soil,

Children's Rights	rights and exposure to hazardous chemicals	Case Study
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- Art. 7: Right of children and young persons to protection.
- Art. 11: Right to protection of health.
- Art. 13: Right to social and medical assistance.
- Art. 15: Right of persons with disabilities to independence, social integration and participation in the life of the community.
- Art. 16: Right of the family to social, legal and economic protection.
- Art. 17: Right of children and young persons to social, legal and economic protection (article of the revised Charter offers protection for children and young persons outside the context of work and addresses the special needs arising from their vulnerability).
- Art. 30: Right to protection against poverty and social exclusion.
- Art. 31: Right to housing (of an "adequate standard" means housing which is of an acceptable standard with regard to health requirements).

movements for environmental justice". 142 Chemical pollution is a socio-economic issue, and its impacts are worsened by socio-economic factors, particularly poverty. Discrimination against children is one of the main reasons why their rights are violated. Looking at rights from this perspective can help expose the prejudices and beliefs that lead to unfair treatment. Poverty indeed puts children in a number of potentially high-risk situations.

Furthermore, the UNCRC preamble places special emphasis on the primary caring and protective responsibility of the family. It does so by recognising the fact that children, because of their special vulnerability, need special care and protection; and identifies the family unit as the "natural environment for the growth and wellbeing" of children. To ensure that this responsibility can be fulfilled, article 27 also identifies the State as guarantor of children's right to an adequate standard of living, which can include material assistance to parents and their children. 143 The UNCRC preamble states that the family "should be afforded the necessary protection and assistance so that it can fully assume its responsibilities within the community."

receiving higher doses than adult residents. For developmental toxicants, the same dose may have no consequences in an adult yet portend devastating consequences on a foetus or child if exposure occurs in a critical developmental window".147 Among other drivers worsening the impacts of pesticides on farmers' children, the access to healthcare is particularly complex in rural areas, as the "long waits at some rural health clinics or limited access to health care may preclude farmworkers and their children from presenting to medical care for suspected pesticide illness".148

Furthermore, hazardous chemicals are found in children's and parents' daily lives, including at home via various exposure routes. Consumer products are far from safe, including in the EU. As relevantly underscored by the project LifeChemBee which aims to detoxify households, "We generally associate hazardous chemicals with heavy industry and polluted hotspots in the vicinity of chemical plants. However, we encounter many hazardous chemicals even in our homes. This is because cleaning products, cosmetics, and consumer products are responsible for countless pollutants in our own households".149

Connections between children's Children's Rights rights and exposure to hazardous chemicals Case Study

EU Charter:

- Art. 7: Respect for private and family life.
- Art. 9: Right to marry and to found a family (in relation to their parents).
- Art. 21: Non-discrimination.
- Art. 24.3: Right of the child to maintain on a regular basis a personal relationship and direct contact with parents.
- Art. 33: Protection of family and professional life.
- Art. 32: Protection of young people at work.
- Art. 36: Access to services of general economic interest.
- Art. 38: Consumer protection.

SDGs:

- Target 1.1: Eradicate extreme poverty for all people everywhere, currently measured as people living on less than \$1.25 a day.
- Target 1.2: Reduce at least by half the proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions.

The need for protection should be understood as States' obligation to support families so that they can fully assume their responsibilities in ensuring the fulfilment of the rights of all family members, including children.144 States are also responsible for putting an end to discrimination and inequality. UNEP and the High Commissioner for Human Rights stressed that "by disproportionately affecting already marginalised groups including children, indigenous peoples, persons with disabilities, women and girls, and persons living in poverty, hazardous substances threaten State obligations and commitments related to non-discrimination and equality".

To address this systemic issue, States should put an end to the use of hazardous substances as well as ensuring that the victims of contamination have access to justice (further detailed in the dedicated section below). Several measures should be put in place, not only improving the planning of industrial facilities and landfills and the sorting of hazardous substances, but, most of all, preventing hazardous substances from being placed on the market.

Furthermore, all children and their parents should be safe at home, surrounded by nonhazardous products they use in

Organisations who are members of the European Consumer Association (BEUC) found PFAS in everyday consumer products like food paper wraps, dental floss, and hardshell jackets. The compilation of tests run between 2017 and 2023 also revealed the presence of various chemicals of concern in toys and children's products. For instance, in baby carriages, car seats, strollers, baby wipes, sunscreen, coloured pencils, toys, highchairs, rubber boots, and running bikes, several hazardous substances damaging children's health were found.150

More expensive products are not always associated with an increased safety of the substances used in it.¹⁵¹ However, because of their socio-economic background, the poorest families often have less choice in stores, they are more often buying on online marketplaces proposing cheaper products, with a reduced access to information on the products they buy.

Tests run by BEUC's members revealed heavy metals, EDCs and persistent chemicals in cheap jewellery, cosmetics for kids, balloons, children's toys, and cosmetic products for adults. Cheap products often contain more hazardous substances, especially when it comes to products sold online.

Connections between children's Children's Rights Case Study rights and exposure to hazardous chemicals Target 1.3: Implement their daily lives. Respect to home Many substances in products nationally appropriate social and family means a right to live in sold online are restricted or protection systems and a home where people are not at not authorised at all on the measures for all, including risk to be contaminated on a daily EU market, but they end up floors (as a floor is the lowest basis, including when using pans in households, outlining the acceptable standard for to cook, sitting on a couch or failure of the EU custom and all), and by 2030 achieve market surveillance system. As on the floor, or using household substantial coverage of the products. However, indoor underlined by BEUC, 7 out of 17 poor and the vulnerable. pollution including via chemicals cheap jewellery items purchased by Forbrugerrådet Tænk from is a significant concern. Target 1.5: Build the online marketplaces did not live resilience of the poor and Asking parents who are up to the legal requirements. those in vulnerable situations consumers to change their Some of the tested products and reduce their exposure behaviours is not enough to exceeded the legal limit of nickel, and vulnerability to climateprotect children. It is crucial an allergenic substance, by 10 to related extreme events and to tackle the problem at the 344 times. Some also contained other economic, social and source, by preventing hazardous exceeding levels of lead and environmental shocks and chemicals from being placed cadmium, two very hazardous disasters. on the market in the first place. heavy metals.152 The EU and its member states Target 2.1: End hunger are responsible for protecting and ensure access by all their citizens against harmful people, in particular the poor products, and that includes and people in vulnerable tackling exposure to hazardous situations, including infants, substances. to safe, nutritious and sufficient food all year round. Target 11.1: Ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums. Target 11.7: Provide universal access to safe, inclusive and accessible, green and public spaces, in particular for

women and children (...).

Children's Rights	Connections between children's rights and exposure to hazardous chemicals	Case Study
Health		

UNCRC:

- Art. 3: Best interest of the child.
- Art. 6: The right to life, survival and development.
- Art. 19: Protection from violence and neglect.
- Art. 24: Health and health services, in particular primary health care, combating disease and malnutrition, including within the framework of primary health care, (...) through the provision of adequate nutritious foods and clean drinking-water, taking into consideration the dangers and risks of environmental pollution.
- Art. 33: Measures to protect children from substance abuse.

ECHR:

Art. 2: Right to life.

European Social Charter:

- Art. 11: Right to protection of health.
- Art. 13: Right to social and medical assistance.

The right to health is pivotal for the enjoyment of all other human rights, and fundamental to a child's ability to grow, learn and develop to the best of their potential. But the right to health means more than the bare bones of survival.

Children's right to health is often only seen in terms of malnourishment and vaccinations. But the right to health means more than just surviving. It also includes the right to access information about our health, the importance of informed consent as well as preserving physical and mental wellbeing. These principles also apply to children.

Health and the environment are intrinsically connected. Science and data are clear. As highlighted by a scientific study under the ATHLETE program, environmental exposure during early life plays a pivotal role in children's health, with aftermaths throughout their entire life, including as adults. 153

Baskut Tuncak's 2016 report to the Human Rights Council was the first thematic report by a Special Rapporteur to emphasise the relevance of the UNCRC to environment protection. He mentioned that because of

Pesticide pollution infringes children's right to health

► Detailed in our <u>position paper</u> on the Sustainable Use of Pesticides Regulation

Exposure to hazardous pesticides is linked to a wide range of children's rights violations, particularly the right to health. It impacts their health directly as environmental exposure increases risks of diseases, but also in the long term by participating in water contamination, climate change and degradation of food quality.

While the 2009 Directive on sustainable use of pesticides (SUD)¹⁵⁸ contributed to reducing the risks and impacts of pesticide use, this legislation has major weaknesses and loopholes leading to daily and continued exposure of children to hazardous pesticides across the EU.

The EEA recently found and stressed that pesticide levels were consistently higher in children than in adults, with children being particularly sensitive to the negative health impacts of chemicals.¹⁵⁹

In their report on pesticides published in 2017, the UN Special

Children's Rights	rights and exposure to hazardous chemicals	Case Stu
Art. 31: Right to housing (of an "adequate standard"	widespread childhood exposure, the world is witnessing a "silent	Rapporteur on the ri and Special Rapport

means housing which is of an acceptable standard with regard to health requirements).

EU Charter:

- Art. 3: Right to integrity of the person.
- Art. 35: Health care.
- Art. 37: Environmental protection.

SDGs:

- Target 2.1: End hunger and ensure access by all people, in particular the poor and people in vulnerable situations, including infants, to safe, nutritious and sufficient food all year round.
- Target 3.1: Reduce the global maternal mortality ratio to less than 70 per 100,000 live births.
- Target 3.2: End preventable deaths of newborns and children under 5 years of age, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1,000 live births and under-5 mortality to at least as low as 25 per 1,000 live births.

pandemic" of disease, disability and premature death.154

For instance, water is a major source of exposure to toxic chemicals and pollutants, in poor and wealthy countries. Childhood exposure to contaminated water involves numerous rights violations, including the right to health and live in a healthy environment. Securing the right of children to safe drinking water, which is an important component of the right to health, is a challenge that regulatory frameworks must meet and where rights are violated, they must provide children with the means of getting redress.

Current SR on toxics and human rights Marcos Orellana emphasised in 2022 that "children suffer a silent assault on their right to health, and often on their right to life, when they are exposed to hazardous substances that leach and enter their bodies. He called for better prioritising protection of children, as well as securing people's access to environmental and health information.155

In July 2022, the UN General Assembly (UNGA) adopted a resolution recognising the access to a clean, healthy and sustainable environment as a

right to food rteur on toxics and human rights emphasised that children are most vulnerable to pesticide contamination, due to the higher dose per unit of body weight.¹⁶⁰ They warned that "exposure to even low levels of pesticides, for example through wind drift or residues on food, may be very damaging to children's health". The report also relevantly outlined that "pregnant women who are exposed to pesticides are at higher risk of miscarriage, preterm delivery and birth defect".

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Moreover, pesticides degrade the biodiversity,161 as well as the ecosystem on which children and their families depend for food and work.162 Pesticides are readily distributed in watercourses and the soil,163 where they accumulate in animals and plants, including the human food chain. In addition to harming children's health, ecological degradation caused by harmful substances jeopardises the food security and long-term economic prospects of millions of children around the world, including across the EU.164 Use of harmful pesticides contributes to biodiversity losses and depletion of the species richness. Biological quality of greenspace is essential for conservation purposes, and benefits to human mental health and psychological wellbeing. 165

Children's Rights rights

Connections between children's rights and exposure to hazardous chemicals

Case Study

- Target 6.1: Achieve universal and equitable access to safe and affordable drinking water for all.
- Target 6.2: Achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations.
- Target 6.b: Support and strengthen the participation of local communities for improving water and sanitation management.

universal human right. 156 With this resolution, the UNGA called on States and businesses to scale up efforts to ensure a healthy environment for all. The resolution recognised that the unsound management of chemicals and waste interferes with the enjoyment of a clean, healthy and sustainable environment, and that environmental damage has negative implications, both direct and indirect, for the effective enjoyment of all human rights, including the right to health.

In its General Comment 26 released in 2023, the Committee on the Rights of the Child set out that children's right to a clean, healthy and sustainable environment "is implicit in the Convention and directly linked to, in particular, the rights to life, survival and development, under article 6, to the highest attainable standard of health, including taking into consideration the dangers and risks of environmental pollution, under article 24, to an adequate standard of living, under article 27, and to education, under article 28, including the development of respect for the natural environment, under article 29."157

The continued use of hazardous pesticides not only deteriorates the ecosystems but also the wellbeing of present and future generations.

Pesticides contribute to and worsen climate change, both during their manufacture and after their application. The production of synthetic pesticides generates important greenhouse gas emissions, as the vast majority derives from fossil fuels. Several pesticides also emit greenhouse gas emissions after their application. 167

While a revision of the EU pesticides rules is needed more than ever to tackle the exposure to hazardous pesticides and put an end to severe children's rights violations, the European Parliament rejected in November 2023 the draft regulation on the Sustainable Use of Pesticides (SUR).168 Conservative MEPs pushed back against this crucial draft legislation that would have contributed to better upholding children's rights, including by protecting their health and their environment. The EU committed to uphold human rights, including children's rights. SUR was a cornerstone proposal and the opportunity to address the shortcomings of the SUD. Efforts to tackle hazardous pesticides

Children's Rights	Connections between children's rights and exposure to hazardous chemicals	Case Study
		must continue in 2024 and beyond, so the EU can finally adopt and implement a clear and binding framework restricting the use of hazardous pesticides, particularly in areas where children live, grow and play.
	Education and play	

UNCRC:

- Art. 28: Right to education, including vocational training and guidance.
- Art. 29: The aims of education, including education on human rights and civic education as well as the development of respect for the natural environment.
- Art. 30: Cultural rights of children belonging to indigenous and minority groups.
- Art. 31: Rest, play, leisure, recreation and cultural and artistic activities.

UNCRPD:

 Art. 24: Right of persons with disabilities to education and full development.

ECHR Protocol:

· Art. 2: Right to education.

Exposure to hazardous chemicals can significantly impair brain functions, with long-term effects on IQ levels, and ultimately on the capacity of every child to learn. Exposure to hazardous chemicals is intrinsically linked with difficulties in learning, since such an exposure severely impairs brain development. IQ loss impacts children's developments, and exposure to hazardous chemicals thus contributes to difficulties to access, enjoy and benefit from education and training. It can be much more complex for children to achieve literacy and numeracy. Scientific studies showed that EDCs are probably responsible for IQ loss and associated intellectual disability, autism, attention deficit hyperactivity disorder. 169 IQ loss also entails massive economic loss for all countries, as studies demonstrated that the effects of chemical exposure to the IQ level of the population can impact the global economy.170

Toy safety in the EU

Detailed in our <u>position paper</u> on the Toy Safety Regulation

The existing 2009 Toy Safety Directive (TSD)172 established and enforced safety measures for children's toys sold in the EU. However it did not prevent severe children's rights violations from happening, including their right to play, alongside their right to health and bodily integrity. Many harmful substances, including suspected and known EDCs, are still present in toys. In 2018, the Czech NGO Arnika found significant levels of toxic brominated dioxins in plastic toys,173 including PBDEs and PBDDs/Fs which are EDCs that may impact children's hormone levels, affect brain development, damage the immune system and foetus, or induce carcinogenesis.

In 2021, the EU's Safety Gate rapid alert system found that, out of the 2,142 alerts it received, the

Connections between children's Children's Rights rights and exposure to hazardous chemicals Case Study

European Social Charter:

- Art. 13: Right to social and medical assistance.
- Art. 15: Right of persons with disabilities to independence, social integration and participation in the life of the community.
- Art. 16: Right of the family to social, legal and economic protection.
- Art. 17: Right of children and young persons to social, legal and economic protection (Revised Charter offers protection for children and young persons outside the context of work and addresses the special needs arising from their vulnerability.).
- Art. 30: Right to protection against poverty and social exclusion.

EU Charter

Art. 14: Right to education.

SDGs:

 Target 4.1: Ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes. Moreover, article 31 of the CRC enshrines the right of the child to rest and leisure, to engage in play and recreational activities appropriate to the age of the child and to participate freely in cultural life and the arts.

Such a right should be enjoyed by all children, without the risk of being exposed to harmful substances. Children's right to leisure and recreation also means the right to play safely. In 2013, the Committee on the Rights of the Child outlined several issues stemming from the mass marketing and commercialisation of play. The Committee was concerned that many children and their families were exposed to increasing levels of unregulated marketing by toy and game manufacturers. They were pressured to purchase a growing number of products which may be harmful to their development or incompatible with creative play, for example (...) toys containing dangerous chemicals or parts.171

most notified product categories were "motor vehicles" and "toys", one of the main concerns for safety of toys pertaining to the presence of hazardous chemicals. Similarly in 2022, 2,117 notifications were sent to the Safety Gate, and toys were still among the most notified product categories.¹⁷⁴

In 2023, the Danish Consumer Council found that bisphenols were present in 60% of 121 tested children's products. Known or suspected EDCs were found in 11 out of 20 tested teething toys.¹⁷⁵ The same year, the Dutch organisation Tegengif analysed plastic toys placed on the Dutch market.176 Several chemicals found in the tested toys are identified by ECHA as substances of very high concern, and associated with hormone disruption, reduced fertility and cancer. The study revealed that phthalates, BHT and Triphenyl phosphate could be found in very popular toys, as well as DEHtP and DINCH present in concentrations exceeding levels considered safe.

Such a far-reaching contamination¹⁷⁷ happens because of permissive regulation. The existing directive only prohibits CMR substances, and sets limit values for certain substances in toys intended for children under 36 months or

Children's Rights	Connections between children's rights and exposure to hazardous chemicals	Case Study
 Target 4.2: Ensure that all girls and boys have access to quality early childhood development, care and preprimary education so that they are ready for primary education. Target 4.4: Substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship. Target 4.5: Eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples and children in vulnerable situations. Target 4.6: Ensure that all youth () achieve literacy and numeracy. Target 4.7: Ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through 		intended to be put in the mouth. In 2020, the TSD evaluation unveiled major shortcomings, 178 including on the protection against harmful chemicals, as TSD does not adequately respond to the latest scientific knowledge. Delivering on its Chemicals Strategy, the European Commission proposed in 2023 a regulation to reform the existing rules on toy safety. 179 For the first time in EU law, the EU Commission proposed to ban both known and suspected EDCs from an entire category of products, in this case toys. This is an ambitious move paving the way for better protection of children across the EU. Additionally, the proposal suggested banning chemicals which knowingly affect respiratory systems or are toxic to specific organs. It also proposed to address the cocktail effect of chemicals, to better assess and manage their combined impacts. As such, the proposal for a Toy Safety Regulation is the chance for the EU to step up and deliver on its legally binding commitments to international and EU children's rights frameworks.
education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and nonviolence, global citizenship		

Children's Rights	Connections between children's rights and exposure to hazardous chemicals	Case Study
 and appreciation of cultural diversity and of culture's contribution to sustainable development. Target 4.8: Build and upgrade education facilities that are child, disability and gender-sensitive and provide safe, non-violent, inclusive and effective learning environments for all. 		

UNCRC:

- Art. 19: Abuse and neglect.
- Art. 20: Children deprived of a family environment.
- Art. 24.3: Measures to prohibit and eliminate all forms of harmful practices, including, but not limited to, female genital mutilation and early and forced marriages.
- Art. 32: Economic exploitation, including child labour with specific reference to applicable minimum ages.
- Art. 36: Other forms of exploitation.
- Art. 39: Measures to promote the physical and psychological recovery and

Practices which violate children's physical integrity, without the child's free and informed consent - regardless of age - are a violation of the child's physical integrity and dignity.180 Everyone, including children, has the right to autonomy and self-determination over their own body, and the only person with the right to make a decision about one's body is oneself - no one else. This is the principle of bodily integrity, which upholds everyone's right to be free from acts against their body which they did not consent to.

Combating violence against children and child protection

Children are especially vulnerable to such exposure, and are not in a position to express consent to being exposed to harmful substances. The period where exposure is the most harmful occurs before birth and after birth at the earliest stages of life, when

Early exposure to Glyphosate

Taking the case of glyphosate, the most widely used herbicide, children are exposed to this hazardous substance during their entire childhood, via breast milk, food, water and environmental pollution, but they are also exposed to it before their birth.¹⁸⁴ A link between the mother's exposure to glyphosate and prenatal damage to a child was recognised by a French authority ("Commission d'indemnisation des enfants victimes d'une exposition prénatale") in 2023. The boy, now aged 16 years old, was born with physical malformation. A causal link was recognised between his mother's exposure to glyphosate during her pregnancy and his medical condition.185

Children's Rights	Connections between children's rights and exposure to hazardous chemicals	Case Study
social reintegration of child victims.	children are unable to speak up for and defend themselves, or	Glyphosate has demonstrated harmful effects on the rates of
UNCRPD:	give consent.	youth liver disease and metabolic disorders, which dramatically
 Art. 16: Freedom from exploitation, violence and abuse. 	Exposure to chemicals is in itself an act of violence against children, to both their health and the environment, hence	increased over the decades. According to a recent study published in 2023, children exposed to glyphosate are more
EU Charter:	violating children's integrity. In	likely in early adulthood to have

Art. 1: Human dignity.

- Art. 3: Right to integrity of the person.
- Art. 4: Prohibition of torture and inhuman or degrading treatment or punishment.
- Art. 24.1: Right of the child to protection and care.

European Social Charter:

- Art. 7: Right of children and young persons to protection.
- Art. 11: Right to protection of health.
- Art. 13: Right to social and medical assistance.
- Art. 16: Right of the family to social, legal and economic protection.
- Art. 17: Right of children and young persons to social, legal and economic protection (Article of the Revised Charter offers protection for children and young persons

2023, the UN Committee on the Rights of the Child stressed that "environmental degradation (...) is a form of structural violence against children and can cause social collapse in communities and families".181 Children continue to be born "pre-polluted," and are denied their right to bodily integrity before they can even walk.¹⁸² International law grants no derogation from the right to physical integrity, 183 and the former SR on toxics and human rights Baskut Tuncak explained that human exposure to toxic substances constitutes an intrusion, whether it's acute poisoning or low level exposure to toxic substances. He emphasised that "childhood exposure to toxics occurs without the child's (or parent's) consent. Even if a parent were somehow able to identify every product and possible source of exposure to toxics that might harm their child, they are often powerless to do anything about it, particularly when it involves food, water or air pollution". The SR added that young children lack the physical and/or mental ability to vocalise

a collection of symptoms that increase the risk of heart disease, diabetes and stroke.186

Moreover, a scientific study presented in October 2023 revealed evidence of the link between popular products containing glyphosate (e.g. the weed-killing Roundup) with cancer in young rats, even when the concentration of this substance is complying with the levels currently considered safe.187 Research found that "low doses of glyphosate-based herbicides at exposure levels within the current acceptable regulatory standards caused a statistically significant doserelated trend in leukaemia incidence in young rats, including those younger than one year".

In October 2023, Inserm and Paris Cité University found that children living near large vineyards are more likely to develop leukaemia. For every 10% increase in the area covered by vines within a 1,000 metre perimeter, the risk of lymphoblastic leukaemia increased by almost 10%.188

Children's Rights	Connections between children's rights and exposure to hazardous chemicals	Case Study
outside the context of work and addresses the special needs arising from their vulnerability.). SDGs: Target 16.3: Promote the rule of law at the national and international levels and ensure equal access to justice for all. Target 16.10: () Protect fundamental freedoms, in accordance with national legislation and international agreement.	opinions and understand the dangers and potential consequences of toxics until long after harm has been inflicted.	Despite the danger of glyphosate for children and their families, the EU Commission decided in November 2023 to extend the authorisation of the use of glyphosate in the EU for ten years. 189 This authorisation renewal leaves the door open to continuous children's rights infringements, including violation of their body integrity, across all states.
Child-friendly justice		

UNCRC:

Art. 12: Right to be heard

ICCPR:

- Art. 2(3): Right to remedy
- Art. 14(1): Access to justice

Aarhus Convention:

Art. 9: Access to justice

ECHR:

- Art. 10: Freedom of expression
- Art. 11: Freedom of assembly and association

In 2016, the then Chair of the Committee on the Rights of the Child Dr. Benyam Mezmur stressed that "if the fundamental rights of children are violated. it is critical that children or those acting on their behalf have the recourse, both in law and in practice, to obtain a remedy to cease, prohibit and/ or compensate for the violation. Failing to deliver redress to a child for a human rights violation is a particularly telling sign that a legal system or a society is falling short of regarding children as rights-bearers".190

Access to justice is extremely difficult for children and their parents in the EU regarding

REACH and access to justice

There are multiple scandals of chemical companies not complying with their obligations under REACH and CLP, leading to massive environmental pollution. It entails severe human rights violations, including children's rights. But victims have no way to access justice and ask for remediation when infringements happen, since REACH does not have a single provision on access to justice and remedies.

The lack of access to justice in the main EU chemicals legislation is poorly compensated by national mechanisms in the EU member states. Access to justice

Children's Rights	Connections between children's rights and exposure to hazardous chemicals	Case Study
Art. 13: Right to an effective remedy	chemical pollution. The main chemicals legislation, meaning REACH and CLP, do not provide	and the capacity of children to access legal actions, redress and remedies suffer from important
EU Charter:Art. 6: Right to liberty and security	access to justice in case of chemical pollution violating those regulations.	discrepancies across the EU. CRIN is elaborating country reports looking at whether the laws and policies in 45 countries
 Art. 24.1.2: Right of the child to express his/her views 	This contradicts the international and EU legally binding frameworks but also one of the	around the world make it possible for children to access their environmental rights. 196
Article 43: European Ombudsman	key goals of the EU Strategy on the Rights of the Child. As part of its thematic area "Child-friendly	Among other questions, the reports ponder whether there is any specific national policy
 Art. 45: Freedom of movement and of residence 	justice", ¹⁹¹ the Strategy supports justice systems that uphold the rights and needs of children. It	addressing childhood exposure to toxic substances, and if so, what is considered a safe level of
 Art. 47: Right to an effective remedy and to a fair trial 	states that in all cases, judicial systems in Europe need to be adapted to the specific needs of	exposure and what is the process for determining safe levels of exposure.
SDGs:	children and must respect their rights. It deplored that children	For instance, in France, apart
 Target 10.7: Facilitate orderly, safe, regular and responsible migration and mobility of people, including through the implementation of planned and well-managed migration policies 	currently face "difficulties to access justice and to obtain effective remedies for violations of their rights, including at European and international level". For instance, children with disabilities experience difficulties due to reduced accessibility	from a few provisions, there is no clear specific national policy addressing childhood exposure to toxic substances setting forth standards for environmental harms. ¹⁹⁷ Sweden has not adopted a specific national policy addressing childhood exposure
 Target 16.3: Promote the 	of justice systems and judicial	to toxic substances either 198 Most

Target 16.3: Promote the rule of law at the national and international levels and ensure equal access to justice for all

Target 16.10: (...) Protect fundamental freedoms, in accordance with national legislation and international agreements

proceedings, and lack accessible

information on rights and

remedies.

In 2020, the Agency for Fundamental Rights (FRA) highlighted the impacts business activities can have on the communities and the environment.192 FRA reiterated that not only should business always be conducted with

to toxic substances either. 198 Most countries are lagging behind in considering childhood exposure and enabling victims to access justice.

A few member states have made some progress. For example, in Finland, the ongoing National Chemicals Programme (2022-2035) recognises the importance of a chemical-safe environment and of limiting

Children's Rights	Connections between children's rights and exposure to hazardous chemicals	Case Study
	respect for human rights, but States also have a duty to ensure that business conduct does not violate human rights as well as to provide access to effective remedy for those whose rights are abused. FRA stressed that the effectiveness of judicial remedies is often hampered by restrictive rules on legal standing, evidence barriers, high legal costs and the length of proceedings. 193 FRA recommended that the EU and member states provide for effective collective redress and representative action beyond consumer protection to other cases of business-related human rights abuse. As for the burden of proof, FRA called on the EU to encourage member states to consider shifting the burden of proof in cases where fundamental rights of individuals are infringed by corporate activity. In 2016, the Special Rapporteur on toxics and human rights warned that the "vast majority of child victims of air pollution, food and water contamination, toxic chemicals and pesticides are not compensated. Even in cases where rights are clearly infringed and the relevant businesses or	exposure, especially to protect the health of children and young people. Further, it considers families with children and young people a target of communication by public authorities on issues relevant to chemical safety. However, recognition of the impacts of hazardous chemicals on children and their guarantees of access to justice and remedies remain insufficient across all member states.
	other actors identified, realising an effective remedy and ensuring corporate accountability for harms due to toxic chemicals or pollution has proven extremely	

Connections between children's rights and exposure to hazardous chemicals Case Study chemicals difficult around the world."194 As the Special Rapporteur accurately explained, the main			
As the Special Rapporteur accurately explained, the main	Children's Rights	rights and exposure to hazardous	Case Study
hurdles pertain to "the lack of awareness among victims that their diseases could have been caused by childhood exposure to toxic chemicals or pollution; the burden of proof placed on children, including the need to establish causation; fundamental information that has not been generated or is confidential about the hazards and uses of substances; the challenge of identifying perpetrators; weak or non-existent legislation; the costs of legal representation for plaintiffs; endless appeals processes; confidential out-of-court settlements; and the use of subsidiaries or contractual relationships to shield corporate liability". Children and their families are too often required to prove that a hazardous chemical caused their injuries, and it is not up to the businesses to prove that they did no harm. The Special Rapporteur warned that "even unquestionably toxic sites of contamination, whether from the dirty legacy of businesses or the toxic remnants of war, escape remediation and accountability that could prevent future human rights violations." In 2023, the UN Committee on the Rights of the Child also addressed the issue of the burden of proof in its General		As the Special Rapporteur accurately explained, the main hurdles pertain to "the lack of awareness among victims that their diseases could have been caused by childhood exposure to toxic chemicals or pollution; the burden of proof placed on children, including the need to establish causation; fundamental information that has not been generated or is confidential about the hazards and uses of substances; the challenge of identifying perpetrators; weak or non-existent legislation; the costs of legal representation for plaintiffs; endless appeals processes; confidential out-of-court settlements; and the use of subsidiaries or contractual relationships to shield corporate liability". Children and their families are too often required to prove that a hazardous chemical caused their injuries, and it is not up to the businesses to prove that they did no harm. The Special Rapporteur warned that "even unquestionably toxic sites of contamination, whether from the dirty legacy of businesses or the toxic remnants of war, escape remediation and accountability that could prevent future human rights violations." In 2023, the UN Committee on the Rights of the Child also addressed the issue of the	

Children's Rights	Connections between children's rights and exposure to hazardous chemicals	Case Study
	Comment 26 on children's rights and the environment. The Committee accurately pointed out that "to enhance accountability and promote children's access to justice in environmental matters, States should explore options for shifting the onerous burden of proof from child plaintiffs to establish causation in the face of numerous variables and information deficits.".195	
	Digital and information society	

UNCRC:

 Art. 17: Access to information from a diversity of sources and protection from material harmful to a child's wellbeing.

Aarhus Convention:

- Art. 4: Access to environmental information.
- Art. 5: Collection and dissemination of environmental information.

ECHR:

 Art. 10: Freedom of expression (include freedom to hold opinions and to receive and impart information). Children very often have difficulty in accessing clear and comprehensible information, especially when it comes to chemicals. Children need ageappropriate information to develop their own perspectives and enable them to make informed decisions.²⁰⁰ Parents must also access fully transparent information so they can take action when their children are too young to understand and protect themselves.

In 2023, the UN Committee on the Rights of the Child flagged that "access to information is essential for enabling children and their parents or caregivers to comprehend the potential effects of environmental harm on children's rights. It is also a crucial prerequisite for realising

Exposure to titanium dioxide

Titanium dioxide (TiO2) is found in many household products such as sunscreen and other products intended for children's uses. The substance has been recognised as a suspected carcinogen to humans.²⁰²

In 2019, the then Special Rapporteur on toxics Baskut Tuncak addressed a letter to the EU Commission²⁰³ expressing concern about a proposed amendment to a regulation on TiO2 labelling that would result in certain forms of TiO2 to circumvent the requirement of bearing cancer warnings. He stressed that withholding information from workers, consumers, and the general public about suspected cancercausing properties of TiO2

Children's Rights	Connections between children's rights and exposure to hazardous chemicals	Case Study

EU Charter:

 Art. 11: Freedom of expression and information.

SDGs:

- Target 4.7: Ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and nonviolence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development.
- Target 16.10: Ensure public access to information (...), in accordance with national legislation and international agreements.

the rights of children to express their views, to be heard and to effective remedy regarding environmental matters.".²⁰¹

Regarding chemicals, information is extremely difficult to access. For years, NGOs have been warning that the processes of revising the EU regulations, as well as evaluating and authorising chemicals to be sold in the EU market, take place in revolving doors. Furthermore, there are cases of disproportionate restrictions on children's access to information which are defended on child protection grounds. Children must indeed be protected against certain information that would be too complex or emotionally damaging. However, access to honest and objective information appropriate to their age and capacity is a prerequisite for all children's rights and should be part of any child protection strategy. Children, on account of their ages, and their parents, have the right to know which chemicals are being used in their products, and what harmful effects they potentially present.

From a children's rights perspective, family is an arrangement which provides care, nurture and development. Considering its responsibility and obligations to the protection of children, families should be able

would deprive them of essential information that is a human right. "This exemption from the warning requirement may amount to denying access to information about potential carcinogenic properties of TiO2 in most titanium-dioxide-containing products in common use", the Special Rapporteur denounced. He deplored that the private sector failed to fully respect human rights and urged the EU Commission to better integrate human rights considerations in the management of toxic chemicals and wastes more generally.

This TiO2 case was an opportunity for the Special Rapporteur to remind how essential accessing information on chemicals is to uphold human rights, since "information is an enabler of many human rights that are implicated by hazardous substances and waste". Baskut Tuncak relevantly outlined that "information is crucial both to prevent human rights violations and abuses resulting from exposure to hazardous substances and wastes, and to realise the rights of victims to an effective remedy". But vital information on hazardous substances and wastes (including on exposure levels, hazardous properties, etc.) are still very often unavailable and/or inaccessible.

Children's Rights	Connections between children's rights and exposure to hazardous chemicals	Case Study
	to know which chemicals are coming into contact with children and what their effects are, so they can choose not to buy products that would harm them.	
Global dimension		

All above-mentioned conventions and legislation:

- UNCRC
- ICCPR
- Aarhus Convention
- ECHR
- EU Charter
- European Social Charter
- SDGs

The EU Strategy on the Rights of the Child stresses that "the EU plays a leading role in supporting children globally, by strengthening access to quality, safe and inclusive education, basic services, health, humanitarian aid and in protecting them in violent conflict."204 However, the reality is that the EU involvement in guaranteeing that children's rights protection against harmful contamination worldwide is far off these promises. As it stands today, EU companies are still allowed to export hazardous chemicals that are prohibited in the EU to other countries. This double standard enables EU businesses to sell harmful chemicals that will degrade the environment and impact children's health around the world.

The export of hazardous chemicals banned in the EU is in itself an economic issue, creating howling economic injustice and massive disparities between

Export ban

► Detailed in CRIN's Brief

Member States have been continuously exporting hazardous chemicals to non-EU countries despite their bans under the EU legislation. In 2018 and 2019, EU member states and the United Kingdom approved the export of a total of 140,908 tonnes of pesticides banned from application in EU fields because of unacceptable health and environmental risks.²⁰⁶

Investigations in 2023 showed that EU countries continue to export chlorpyrifos.²⁰⁷ This pesticide is banned in the EU, and known to cause particular harmful health damages to children and foetuses. Pre and post-birth exposure to chlorpyrifos is linked to adverse neurodevelopmental impacts for children. Despite such scientific evidence, in the second semester of 2022, European companies issued notifications for the export of more than 380 tonnes of

Children's Rights	Connections between children's rights and exposure to hazardous chemicals	Case Study
	EU member states and non-EU countries. "Wealthier nations tend to create double standards that allow the trade and use of prohibited substances in parts of the world where regulations are less stringent, externalising the health and environmental impacts on the most vulnerable", former Special Rapporteur on toxics, Baskut Tuncak, stressed in 2020. 205 The continued use of harmful chemicals entails significant environmental degradation and health costs that will eventually reverberate on the financial status and resilience of healthcare systems in those countries importing chemicals banned in the EU.	chlorpyrifos, and they expect to export equivalent amounts in 2023. ²⁰⁸ Between January and September 2022, more than 7,40 tons of hazardous substances, such as the prohibited fungicide Picoxystrobin, were shipped from France to non-EU countries including Brazil, Ukraine, Russia, Mexico, India and Algeria. Frence authorities approved up to 155 requests for authorization of about 15 chemicals banned in the EU. ²⁰⁹

04

A way forward.

To fulfil the promises of the CSS, the EU must revise legislation to achieve comprehensive protection of all children against the harmful effects of the thousands of hazardous chemicals now widely used in the bloc. We have four recommendations to this end:

- 1. Fully recognise and comprehend children's rights in reform of EU chemicals legislation
- 2. Improve the collection of information on chemicals and its dissemination
- 3. Tighten the management of chemical hazards
- 4. Enforce regulations adequately and guarantee justice for affected children

1. Fully recognise and comprehend children's rights in reform of EU chemicals legislation

Children have all human rights,²¹⁰ not because they are the "adults of tomorrow" but because they are human beings today. In recognition of the vulnerabilities associated with their early developmental stage, their additional legal rights as children are intended to protect them as such. For children's rights to be realised, they must first be recognised. This requires developing strong legislation on chemicals safety, and this includes warding off harmful, paternalistic and adult-centric narratives that prevent children being recognised as independent rights holders.

EU chemicals legislation too often neglects the children's rights framework and often tends to protect children because they are vulnerable groups, and not because they are right holders. Explicit and complete mentions of children's rights as well as the references to the UNCRC, the ECHR, the EU Charter and to the EU Strategy on the Rights of the Child are so often missing from the EU legislation on chemical safety.

Acknowledgements of intersectionality between harmful chemicals and children's rights violations are very rarely embedded in the EU chemicals legislation and legislative proposals. Protection against harmful direct exposure alone, while helping to respect the right to life and health, often fails to safeguard children's associated rights to safe water, safe housing, nutritious food, and play. Were the relevant human rights instruments explicitly acknowledged to guide policy-making, such harmful oversights may be avoided. The children's rights framework should be the compass, not the afterthought.

2. Improve the collection of information on chemicals and its dissemination

Legislation must better enforce the principle of "no data, no market" (REACH, Article 5), which confers a burden of proof on chemical industries to show that substances pose no harm. The principle is meant to be a core principle of REACH, but current legislation falls well short of realising it, as chemicals are still being placed on the EU market without sufficient and adequate data guaranteeing their safety. In 2020, the EEA reported that up to 70% of REACH registration dossiers were out of compliance,211 such that unsafe chemicals are highly likely to be entering the market unnoticed. This data gap must be addressed with urgency. In particular, strengthening information reporting requirements will contribute to the identification of EDCs, to which children are especially vulnerable. This identification ultimately enables their appropriate management and restriction under several EU chemical regulations, including REACH and CLP, hence guaranteeing children are protected against exposure to those harmful substances.

The requirements should also apply to substances that pose significant risks that currently fall outside the regulatory framework. For instance, polymers are exempt from safety data reporting, despite developing knowledge of their adverse impacts and growing public and environmental exposure.²¹²

Sectoral regulations also suffer from a lack of enforcement, due in part to the difficulties and limitations of market surveillance and insufficient customs checks. For example, the official evaluation of the Toy Safety Directive found major loopholes in the market surveillance of online sales of products containing prohibited substances.²¹³ It is welcome that the draft regulation on toy safety addressing this gap proposes to improve both evaluation and surveillance. A Digital Product Passport (DPP) containing information on the compliance of each toy would be a prerequisite for all imports, including online sales. The measure is likely to contribute to transparency, as well as facilitate communication across the supply chain and help to remove more hazardous chemicals from consumer products.

Children and parents also have a right to know about the formulation of the products they buy and use. Accordingly, the assessment and management of chemicals must be transparent to public scrutiny. For example, DPP data should be freely available to the public, including in a child-friendly format, and be easily accessible to people with disabilities. Furthermore, while some information on the safety of substances is publicly available on the ECHA website, the data is difficult to navigate, understand and process for the general public. Data should be made more comprehensible and accessible for the public, including parents and their children on account of their age.

3. Tighten the management of chemical hazards

A principled approach: Precaution and prevention

In view of children's legal right under the UNCRC to have their best interests made a primary consideration in all matters that concern them, decision-making concerning children in the EU should always be guided by precaution against, and prevention of harm. Accordingly, the EU chemicals legislation should always adopt a maximalist approach to safety. The best and highest level of protection should always be the guiding principle when assessing and managing chemicals.

These principles can make material changes to children's lives. For example, ECHA estimated that the EU restriction on four phthalates (i.e. DEHP, DBP, DIBP, BBP) adopted in July 2020 "will save about 2,000 boys each year from impaired fertility later in life".²¹⁴

Member states, also, can take the initiative. For instance, Denmark has begun to apply the principles of prevention and precaution to protect children from toxic threats. In 2018, the UN Special Rapporteur on toxics and human rights commended the government's leadership in preventing exposure of children to EDCs and other chemicals of concern.²¹⁵

Unfortunately, quite often, restrictions are only occurring at the national level. When taking place at the EU level, the process is extremely long, and ambitions can be watered down along the way.

Several changes in the assessment and management in the EU are required to have a more efficient and fast-tracked restriction process.

A grouping approach

Currently, it is the norm to assess each discrete substance (or small groups of substances) for risk separately. The substance-per-substance evaluation and restriction are highly time-consuming and resource-intensive. It typically takes around six years to restrict the use of a hazardous substance. The approach also leaves exploitable loopholes, since a restriction on one substance may be bypassed by substituting a similarly hazardous substance from the same chemical group.

OECD policy experts support a grouping approach, according to which larger classes of chemicals are assessed collectively. When used, they argue, this approach has "allowed for alternatives to emerge rather than industry converging to a simple substitution with substances of similar intrinsic characteristics".²¹⁷

A generic risk approach

Whereas assessment and management of hazardous substances in the EU tends to assume that "the dose makes the poison", studies have widely shown that many substances, such as EDCs, are appreciably hazardous even in very small quantities.

The EU currently uses a risk-approach consisting in assessing the safety of chemicals, meaning that even if a substance presents hazards, it can be authorised if all measures and steps to prevent exposure are demonstrated to be adequate at keeping risks below "acceptable levels".



However, for many substances, science proved that there is no such thing as "acceptable levels", particularly for those in contact with children.

The generic risk approach ('GRA', socalled hazard based assessment) offers an alternative method in the way chemicals are being assessed and managed. For instance, on the basis of generic risk considerations, all CMRs are automatically banned under the Toy Safety Directive. But this is not the case for carpets or furniture, with which children come into contact daily. EU chemicals laws must overcome these contradictions, in favour of an extension of the GRA in law and practice. GRA should be extended to cover more hazard classes, and be embedded more explicitly in and across the overarching legislative framework (including REACH).

In the CSS, the EU Commission planned to

"extend the generic approach to risk management to ensure that consumer products – including, among other things, food contact materials, toys, childcare articles, cosmetics, detergents, furniture and textiles - do not contain chemicals that cause cancers, gene mutations, affect the reproductive or the endocrine system, or are persistent and bioaccumulative".

In addition, the CSS planned to launch a comprehensive impact assessment to

"define the modalities and timing for extending the same generic approach, with regard to consumer products, to further harmful chemicals, including those affecting the immune, neurological or respiratory systems and chemicals toxic to a specific organ".

The strategy also aimed to "phase out the most hazardous chemicals from consumer products for all non-essential uses". The remaining "essential" uses of those substances should be subject to a GRA assessment, and only very rare and clearly justified authorisations should be granted to use those hazardous substances. Limiting the transition periods and exemptions from the GRA restrictions is crucial to ensure children's health and their rights are protected. The longer the continued use of hazardous chemicals is allowed, the more children will be contaminated at an early age, and the more the ecosystems will deteriorate everywhere in Europe, with irreversible aftermaths on human health and the resilience of the environment. Only the uses which are absolutely essential to society and deemed as such after a thorough and independent assessment should be exempted from the scope of the restrictions or granted with a longer transition period.

Stronger restrictions, which would apply to a wide range classes of chemicals and examine them for generic risks at the outset, would encourage the industry, especially the biggest companies, to invest in transition to suitable and sustainable alternatives. Several frontrunners have begun to do so. investing in research and development, and some alternative providers have already found suitable substitutions for many consumer and industrial uses of hazardous chemicals.218 Some states have also taken action to phase out hazardous chemicals in a wide range of uses.219 Although a combined, collective effort from industry and member states remains some way off, it is a suitable goal for EU policymakers.

A combination effects approach

As discussed earlier, children are exposed to many hazardous chemicals via a wide range of exposure routes, including the use of toys, hygiene and cosmetic products, as well as in food and water.²²⁰ They are affected by chemicals not only individually, but also in combination, which can lead to unexpected effects on health.

In 2019, member states' environment ministers called on the Commission to introduce requirements to ensure that the mixture effects of chemicals are addressed in the risk assessment and risk management processes of relevant EU legislation.²²¹ In 2020, the Commission acknowledged "a need to introduce or strengthen provisions to take account of unintentional mixtures in relevant pieces of legislation, such as REACH, water, food additives, toys, food contact materials, detergents and cosmetics".

Introducing better assessment and management of combined chemicals is long-overdue. The Commission has proposed that a Mixture Assessment Factor (MAF) "seems to be the most pertinent for industrial chemicals under REACH, but it is applicable also to other regulatory areas, where the available data are insufficient to allow an assessment of actual co-exposure situations".222 A MAF can be used to lower the permitted level of exposure to a chemical in view of its combination effects with other chemicals.²²³ Scientists, together with consultants and the Commission, have now been working extensively on MAF for several years.

Addressing the combination effect of chemicals is a much needed holistic

approach in assessing and managing chemicals, as it contributes to a move away from the outdated and isolating evaluation of single substances.

An export ban

Under the CSS, the EU promised to "lead by example, and, in line with international commitments, ensure that hazardous chemicals banned in the EU are not produced for export, including by amending relevant legislation if and as needed."

In a children's rights context, non-discrimination is not only a right, but a cardinal principle informing the realisation of all other rights. With the adoption of its EU Strategy on the Rights of the Child in 2021, the EU recognised this, stating that every child in Europe and across the world should enjoy the same rights and live free from discrimination and intimidation of any kind. Against that background, the Commission committed to propose concrete actions to protect, promote and fulfil children's rights universally.

By the same principle, export from the EU of hazardous chemicals should stop. Children must be protected against harmful exposure irrespective of where they live.²²⁴ Double standard in tackling harmful chemicals is unacceptable.

In addition to harming children in non-EU countries, harmful substances banned in the EU, exported and used outside of the EU, can return embedded in imported products, thereby also contaminating children in Europe. For instance, several very hazardous pesticides that are banned in the EU can still be sold outside of the EU and used in fields, thus polluting soils and

water, eventually contaminating food that is then imported back into the EU.²²⁵ In 2020, 74 banned active substances were found in about 5,800 samples of food imported to the EU.²²⁶

A ban of production and export of those hazardous chemicals will enable the EU to comply with its international and European obligations under human rights frameworks, as well as live up to the ambitions laid down in the CSS. It would encourage stronger global standards in the long term, while immediately enhancing protection for human health and the environment worldwide.

Chemical pollution knows no boundaries.
Substances that are hazardous in the EU are just as harmful in other countries.
Children must be internationally protected against harmful exposure to hazardous chemicals. The EU cannot continue exporting hazardous substances that have adverse effects on children's health and the environment.

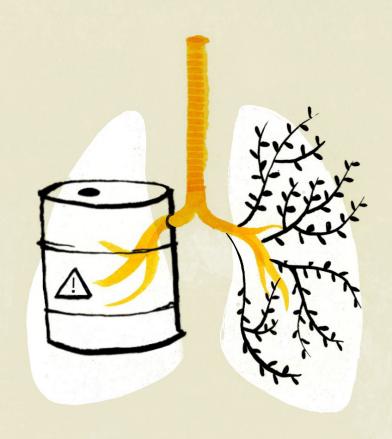
4. Enforce regulations adequately and guarantee justice for affected children

To protect children properly, EU-wide chemicals legislation must require full compliance by member states and industry companies. The EU must enhance enforcement measures, while also guaranteeing access to justice and remedies for children in case of infringements of the obligations set out in EU chemicals legislation. In particular, legal liability in case of chemical pollution must be augmented.

"Child rights standards in international instruments do not mean much for the lived reality of children if they are not implemented", warned the then Chair of the Committee on the Rights of the Child, Dr. Benyam Mezmur, in 2016.²²⁷ Children's access to justice is a human right in itself, but it also enables all other rights; if these rights are to be more than a promise, they must be enforced when necessary.

The EU considers children as agents of change; the EU Strategy on the Rights of the Child aims to promote their right to be heard so that they may shape EU laws. The EU Children's Participation Platform connects child participation mechanisms at local, national, and European level, to involve children in EU decision-making. But access to participation should be bound together with access to justice, such that children have avenues for remedy when inadequate decision-making has led to infringements of their rights. In particular, children should be able to seek redress in court when chemical contamination and pollution harm them. Those rights have been denied to children and their representatives for too long, effectively fostering and condoning industry impunity.228

Reform of REACH should explicitly embed the right of access to justice. Specifically, and as recommended by ClientEarth, the current revision round offers an opportunity to enshrine and enforce a right to require action and compensation from noncompliant chemical operators, together with a right to trigger action from public authorities.²²⁹



Conclusion.

Every day, millions of children and their families across the world, including in the EU, are harmed by exposure to hazardous substances. This violates a wide range of children's rights set out in the UNCRC and other treaties by which EU member states are bound, while undermining the EU Strategy on the Rights of the Child. The UN and EU child rights frameworks should be a key compass for decision making in EU institutions, agencies, and member states.

If the EU does not efficiently phase out harmful chemicals while it has the opportunity to do so, it will effectively facilitate harm to children, complicit in the rights violations associated with underdeveloped regulation. As such, children's rights protection should be embedded explicitly in EU chemicals legislation and policies.

The UN Special Rapporteur on toxics and human rights Marcos Orellana and the UN Special Rapporteur on human rights and the environment David Boyd have 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 plane habitable".²³⁰

This is the context in which the EU promised to be a frontrunner. It is now time to live up to that commitment and pave the way for ambitious chemicals legislation to extend protections to children in the EU while helping to inspire the same elsewhere.

The triple ecological crisis - climate change, biodiversity loss, and chemical pollution - must be addressed as one.²³¹ It is misguided to be "prioritising climate policies over chemical ones", as they belong together.²³² The green transition, as well as progressive climate and biodiversity policies, all hinge in part on stronger chemicals legislation.²³³ Decarbonisation, detoxification, sustainable patterns of consumption and production - and the rights and welfare of children - all belong to the same challenge.

The EU has the opportunity to uphold children's rights throughout its chemical legislation, by stopping and preventing exposure of children to thousands of hazardous substances.

There is no time to waste.

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