**“Pollution Information Portals and the right to know: Strengthening access to information on releases of hazardous substances”**

Submission on behalf of [Child Rights International Network (CRIN)](https://home.crin.org/)

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**About CRIN**

1. CRIN is a creative human rights organisation focused on children's rights. We press for rights – not charity – and campaign for a genuine shift in how governments and societies view and treat under-18s.
2. This submission draws on CRIN’s research and advocacy on children’s rights and hazardous substances at the [UN](https://home.crin.org/issues/toxics) and the [European Union](https://home.crin.org/eu-toxics). It also draws on research from CRIN’s ‘[Children’s Access to Environmental Justice](https://home.crin.org/access-to-environmental-justice)’ project, with research on 43 countries examining, amongst other issues, whether children’s right to access information is protected and enforced.
3. This submission focuses on children’s rights within the context of the Special Rapporteur’s forthcoming report.

**Introduction**

1. Children are particularly vulnerable to the effects of environmental harm. This is because exposure occurs during sensitive periods of development, namely infancy, childhood and adolescence. Their young age also means they will have to live with the consequences for longer. There is a need to ensure that States prevent actions that cause environmental damage on the basis that this damage interferes with the human rights of their citizens, particularly children. States also need to fulfil their children’s rights obligations, including the right to information about toxics and other hazardous substances in the environment that may be harmful to their health.
2. The following provides an overview of children’s right to access age-appropriate information on toxics which takes into account child-specific factors, with an emphasis on the responsibilities of States.

**Children’s right to information in international and regional frameworks**

1. Access to information is key to ensure the rights to participation, access to justice and effective remedy. Children are right holders fully entitled to these rights according to several international and regional frameworks.
2. The United Convention on the Rights of the Child (UNCRC) enshrines the right to access to information from a diversity of sources, referring in particular to information that may be beneficial to the child’s well-being and their physical and mental health.[[1]](#footnote-1)
3. Several regional agreements also guarantee access to information. These include the European Convention on Human Rights (ECHR), which protects freedom of expression, encompassing the freedom to hold opinions and to receive and impart information.[[2]](#footnote-2) The American Convention on Human Rights (ACHR) enshrines freedom of thought and expression, which includes freedom to seek, receive and impart information and ideas of all kinds, regardless of frontiers, either orally, in writing, in print, in the form of art, or through any other medium of one's choice.[[3]](#footnote-3) In Europe, the Aarhus Convention also guarantees the right to access to environmental information and the collection and dissemination of environmental information.[[4]](#footnote-4) In Latin America and the Caribbean the Escazú Agreement guarantees the implementation of the rights of access to environmental information.[[5]](#footnote-5)
4. The Sustainable Developments Goals aim to ensure that ‘all learners acquire the knowledge and skills needed to promote sustainable development, including through education for sustainable development and sustainable lifestyles, human rights [...]”, as well as to guarantee “public access to information [...], in accordance with national legislation and international agreements”.[[6]](#footnote-6)
5. The UN Committee on the Rights of the Child (“the Committee”) has further recognised the importance of accessible information for children to enable them to “comprehend the potential effects of environmental harm on children’s rights” and as a prerequisite for realising the rights of children, such as to express their views, be heard, access justice and to effective remedy regarding environmental matters.[[7]](#footnote-7)
6. To fully uphold children’s rights, States and companies must ensure that clear and transparent information is available regarding pollution, which particularly impacts children. If appropriately elaborated and curated in line with and respect of children’s rights, Pollution Information Portals can constitute powerful tools to provide information.

**Children’s rights to access age-appropriate information and to environmental education**

1. Children need age-appropriate information to develop their own perspectives and enable them to make informed decisions.[[8]](#footnote-8) As stressed by the Human Rights Council’s resolution 45/30, States should ensure “the availability and accessibility of adequate and age- and disability responsive information on the effects of environmental harm, including pollution, hazardous substances and wastes, the loss of biodiversity and climate change”.[[9]](#footnote-9)
2. Parents or guardians must also be able to access fully transparent information on which hazardous substances are coming into contact with their children and what their effects are in order to provide, in a manner consistent with the evolving capacities of the child, appropriate direction and guidance to children, which “should aim at the harmonious development of children to their fullest potential and should enable them to gradually exercise their rights”.[[10]](#footnote-10)

1. Of particular relevance to the information on hazardous substances and the creation of Pollution Information Portals, the Committee stressed in 2023 that “[c]hildren have the right to access to accurate and reliable environmental information, including about the causes, effects and actual and potential sources of climate and environmental harm, adaptive responses, relevant climate and environmental legislation, regulations, findings from climate and environmental impact assessments, policies and plans and sustainable lifestyle choices. Such information empowers children to learn what they can do in their immediate environment related to waste management, recycling and consumption behaviours”.[[11]](#footnote-11)
2. States have a responsibility in providing education for children, considering that “for free, active, meaningful and effective participation, children should be provided with environmental and human rights education, age-appropriate and accessible information, adequate time and resources and a supportive and enabling environment. They should receive information about the outcomes of environment-related consultations and feedback on how their views were taken into account and have access to child-sensitive complaint procedures and remedies when their right to be heard in the environmental context is disregarded.”[[12]](#footnote-12) Environmental education that starts in schools is important for children to properly understand what pollution and hazardous chemicals are.
3. State approaches to the right to information vary. In some cases, there are no specific provisions on children's right to access information (e.g. Canada, Thailand, Australia, India).[[13]](#footnote-13) Even when this right is recognised in legal provisions, some limitations may apply for children (e.g. Japan[[14]](#footnote-14), South Africa[[15]](#footnote-15), Senegal[[16]](#footnote-16), Tanzania[[17]](#footnote-17), Uganda[[18]](#footnote-18)). Some children also experience lack of connectivity (e.g. Mexico[[19]](#footnote-19)), poverty (e.g. Egypt[[20]](#footnote-20)) and lack of access to education (e.g. Egypt[[21]](#footnote-21), Senegal[[22]](#footnote-22)) which prevents proper access to information.
4. Environmental education is addressed in national legislation in a number of States (e.g. Argentina[[23]](#footnote-23), Brazil[[24]](#footnote-24), Egypt[[25]](#footnote-25), France[[26]](#footnote-26), Morocco[[27]](#footnote-27), Philippines[[28]](#footnote-28), Senegal[[29]](#footnote-29), Uganda[[30]](#footnote-30), Uruguay[[31]](#footnote-31)), while other States incorporate environmental education through their national policies and school curricula (e.g. Argentina[[32]](#footnote-32), Australia[[33]](#footnote-33), Canada[[34]](#footnote-34), Côte d’Ivoire[[35]](#footnote-35), Brazil[[36]](#footnote-36), Mexico[[37]](#footnote-37), Morocco[[38]](#footnote-38), Sweden[[39]](#footnote-39), Finland[[40]](#footnote-40), Belgium[[41]](#footnote-41), New Zealand[[42]](#footnote-42), Norway[[43]](#footnote-43), Philippines[[44]](#footnote-44), South Africa[[45]](#footnote-45), Senegal[[46]](#footnote-46), Uganda[[47]](#footnote-47)). In some instances, environmental education is integrated into other subjects and standalone environmental education lessons are not provided (e.g. France[[48]](#footnote-48), Belgium[[49]](#footnote-49), Tanzania[[50]](#footnote-50), Thailand[[51]](#footnote-51)).
5. Implementation challenges have also been identified in a number of States (e.g. Mexico[[52]](#footnote-52), Tanzania[[53]](#footnote-53)). In some cases, States do not have consistent policies across regions in this regard (e.g. Germany[[54]](#footnote-54), Switzerland[[55]](#footnote-55)), which may lead to uneven access to such education.

**A need for data which considers children’s specific vulnerabilities as well as the full lifecycle of hazardous substances**

1. Authorities need all relevant data to conduct efficient and appropriate risk assessments in relation to the environmental and health impacts of specific pollutants. Risk assessments should be based on data which assess the risks pollution poses to children’s rights and their health, taking into consideration their specific vulnerability to exposure. Contamination by harmful chemicals and pollution violates children’s rights and ultimately leads to significant health costs across all States, borne by governments, public authorities and citizens.[[56]](#footnote-56)
2. The definition of pollution should encompass the entire lifecycle of hazardous substances, not only the end-of-life emissions but all forms of emissions during the manufacturing, processing, management and upstream uses of hazardous substances. 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 worldwide[[57]](#footnote-57), while also contributing substantially to air and water pollution.[[58]](#footnote-58) For instance, pesticides pollute water streams and food and contribute to and worsen climate change, both during their manufacture and after their application.[[59]](#footnote-59) Several pesticides also emit greenhouse gas emissions after their application.[[60]](#footnote-60)
3. The massive contribution of the chemical industry to climate change is neglected, too often falling under the radar of data collection and mitigation measures.[[61]](#footnote-61) It is crucial to collect data about and better assess those emissions when establishing and running Pollution Information Portals, so this industry sector’s contribution to climate change is not left out, can be better understood, and risk management, prevention and mitigation measures can be adopted to tackle those emissions.

**Pollution Information Portals: towards more transparency and accountability for States and businesses**

1. As the Committee on the Rights of the Child has recognised “it is up to the States to make environmental information available”, and “States should encourage the media to disseminate accurate information and materials regarding the environment, for example, measures that children and their families can take to manage risks in the context of climate change-related disasters”.[[62]](#footnote-62) States are not only accountable for providing information, but also and as importantly, for providing information in an accessible way, with clear and plain language used. Information important to the public should not be excluded. As such, polluting companies also play a major part and have a responsibility to disclose information and share comprehensible, complete and reliable data.

***National examples of Pollution Information Portals***

1. While some States have Pollutant Release and Transfer Registers (PRTRs) in place (e.g. Australia[[63]](#footnote-63), Belgium[[64]](#footnote-64), Canada[[65]](#footnote-65), Germany[[66]](#footnote-66), Mexico[[67]](#footnote-67), Norway[[68]](#footnote-68), Senegal[[69]](#footnote-69), Spain[[70]](#footnote-70), Sweden[[71]](#footnote-71), Switzerland[[72]](#footnote-72), Uruguay[[73]](#footnote-73), United Kingdom[[74]](#footnote-74), United States[[75]](#footnote-75)), there is still a number that do not (e.g. Argentina[[76]](#footnote-76), Brazil[[77]](#footnote-77), El Salvador[[78]](#footnote-78), Fiji[[79]](#footnote-79), Morocco[[80]](#footnote-80), New Zealand[[81]](#footnote-81), Philippines[[82]](#footnote-82), South Africa[[83]](#footnote-83), Tanzania[[84]](#footnote-84), Thailand[[85]](#footnote-85), Uganda[[86]](#footnote-86)).
2. Although there is a crucial need for child-sensitive data, very few examples could be found of PRTRs that take into account child-specific factors in terms of which data is gathered and the type of data generated (e.g. Australia[[87]](#footnote-87), United States[[88]](#footnote-88)).

***Learning lessons from EU Pollution Portals***

1. At the EU level, there are a number of Pollution Information Portals in place, including related to air quality and industrial emissions, from which we can learn useful lessons:
2. The EU Air Quality Directive requires Member States to ensure that “information on ambient air quality is made available to the Commission [...]” and a portal on European Air Quality has been established.[[89]](#footnote-89) Within the Directive’s ongoing revision, NGOs highlighted major gaps in air quality information, particularly for vulnerable groups like children, and suggested key improvements to the reporting and portal system including the need to “standardise the air quality regular information systems to always include information on health threats”.[[90]](#footnote-90) They called for broadening the scope of air quality standards and monitoring to include other pollutants harmful to health.The revision is also an opportunity to establish a comprehensive alert system for all pollutants in case of pollution peaks which are provided to vulnerable groups.
3. In 2022, the EU Commission proposed revising the EU Industrial Emissions Directive (IED) and Regulation on reporting of environmental data from industrial installations and establishing an Industrial Emissions Portal (E-PRTR).[[91]](#footnote-91) Under the current legislation, information concerning child-specific risks may be submitted, but is not required by E-PRTR’s governing regulations. The European Environmental Bureau (EEB) stressed the portal should “empower the various users to track progress on pollution prevention, enable benchmarking of performance and promote compliance” rather than only enabling the public to be made aware of pollution impacts of industrial activities. It needs to “enhance participation and accountability in environmental decision-making”.[[92]](#footnote-92) In addition, producers should have a duty of public accountability. A joint NGO-industry position highlighted the risk that “the main cost burdens [of pollution] is onto water supply services and the waste management industry, not the producers”[[93]](#footnote-93), and that civil society organisations are being excluded from confidential business information . By promoting more effective use of information, this E-PRTR revision is a major step towards more transparency and access to information. However, the European Commission’s proposal and the agreement adopted in the trilogue fell short on key aspects. The final text agreed in November 2023 requires Member States to develop an electronic permit system (delayed to 2035). It enables public participation and access to information although, “civil society organisations remain excluded from what can be considered ‘confidential business information’, a loophole that has been used in the past to undermine their participation in the negotiations of IED pollution standards”.[[94]](#footnote-94) More broadly, the revised IED revision continues to protect polluters, and fails in regulating environmental and health impacts from the most polluting industrial activities.
4. When creating and running Pollution Information Portals, States must work with companies who should have a duty to provide transparent, clear and complete information. However, companies are often reluctant to provide information on the pollution they emit and the hazards the substances represent. Businesses can hide this to preserve their public image and/or avoid financial consequences, including mitigation measures and remedies for victims. Recently, for instance, cases of PFAS pollution have emerged in Europe[[95]](#footnote-95), but authorities learned of this from investigative journalists, not the polluting companies.
5. Businesses should be submitted to the strongest incentives possible, via mandatory measures, to provide all data regarding pollution stemming from their activities. States must not bear the cost of collecting data on pollution alone - polluters must contribute significantly, in line with the Polluter Pays Principle.

**Summary**

1. The right to access information is key in ensuring children’s rights to participation, access to justice and effective remedy. Children are right holders fully entitled to these rights according to several international and regional frameworks (e.g. UNCRC, Aarhus Convention, ECHR, ACHR).
2. Despite the relevance of such information to the full exercise of their rights, available information rarely accounts for child-specific factors and is often beyond children’s reach. States should account for child-specific factors in terms of data gathered and the type of data generated in Pollution Information Portals.
3. Access to appropriate, accurate and reliable environmental information, including the causes and potential sources of climate and environmental harm (such as hazardous chemicals and other toxics) and their effects on health and children’s rights, must be guaranteed for children and their parents/guardians. This enables children to develop their own perspectives and make informed decisions. Environmental education is key for the free, active, meaningful and effective participation of children.
4. Risk assessments should detail the risks pollution poses to children’s health, taking into consideration their specific vulnerability to exposure, and should look at the impacts of pollution on the enjoyment of human rights, including those of children. Appropriate risk management, prevention, mitigation and remediation measures can be adopted when impacts of pollution are accurately assessed, and that includes reporting and understanding the impacts on children and their rights. Pollution Information Portals can become key information tools in that regard.
5. Environmental information, including on hazardous chemicals and other toxics, should be made available by States with the mandatory input of companies. To this end, businesses should be submitted to the strongest incentives possible, via mandatory measures, to provide all data regarding pollution stemming from their activities.

1. Article 17 of the UNCRC, <https://www.ohchr.org/en/instruments-mechanisms/instruments/convention-rights-child>. [↑](#footnote-ref-1)
2. Article 10 of the ECHR, <https://www.echr.coe.int/documents/d/echr/convention_ENG>. [↑](#footnote-ref-2)
3. Article 13 of the ACHR, https://www.oas.org/dil/treaties\_b-32\_american\_convention\_on\_human\_rights.pdf. [↑](#footnote-ref-3)
4. Articles 4 and 5 of the Aarhus Convention, <https://unece.org/environment-policy/public-participation/aarhus-convention/text>. The relevance of these rights to children has been recently stressed at the Meeting of the Parties to the Aarhus Convention. See the key outcomes as agreed by the task force on access to information, eighth meeting, (9-10 November 2023), calling “on respective Parties, other interested States, Aarhus Centres and other stakeholders to take additional measures to promote environmental education and awareness-raising and advance the fulfilment of children’s rights to access to environmental information in accordance with the Aarhus Convention and the Convention on the Rights of the Child”, <https://unece.org/sites/default/files/2023-11/8TFAI_KeyOutcomes_inf.3_fnl.pdf>. [↑](#footnote-ref-4)
5. Articles 1, 4 and 5 of the Escazú Agreement, <https://www.cepal.org/en/subsidiary-bodies/regional-agreement-access-information-public-participation-and-justice/text-regional-agreement>. [↑](#footnote-ref-5)
6. Targets 4.7 and 16.10 of the Sustainable Development Goals, <https://www.unodc.org/roseap/en/sustainable-development-goals.html>. [↑](#footnote-ref-6)
7. Committee on the Rights of the Child, General Comment No. 26 on children’s rights and the environment, with a special focus on climate change, <https://tbinternet.ohchr.org/_layouts/15/treatybodyexternal/Download.aspx?symbolno=CRC%2FC%2FGC%2F26&Lang=en>. [↑](#footnote-ref-7)
8. CRIN's paper [*Access Denied: Protect children - end censorship*, https://archive.crin.org/sites/default/files/access\_to\_information\_final\_layout.pdf.](https://archive.crin.org/sites/default/files/access_to_information_final_layout.pdf) [↑](#footnote-ref-8)
9. Human Rights Council resolution A/HRC/RES/45/30, 13 October 2020, paragraph 9f, <https://undocs.org/Home/Mobile?FinalSymbol=A%2FHRC%2FRES%2F45%2F30&Language=E&DeviceType=Desktop&LangRequested=False>. [↑](#footnote-ref-9)
10. Statement of the Committee on the Rights of the Child on article 5 of the Convention on the Rights of the Child, para. 9, (11 October 2023), <https://www.ohchr.org/sites/default/files/documents/hrbodies/crc/statements/CRC-Article-5-statement.pdf>. [↑](#footnote-ref-10)
11. Committee on the Rights of the Child, *supra* note 7, para. 33. [↑](#footnote-ref-11)
12. *Ibid.*, para. 27. [↑](#footnote-ref-12)
13. See CRIN’s Children’s Access to Environmental Justice project. Available at: <https://home.crin.org/a2j>. [↑](#footnote-ref-13)
14. See *Gifu Prefectural Ordinance for the Protection and Development of Youths* (Supreme Court of Japan Third Petty Bench judgement (19 September1989). This case, although not related to environmental rights, considered access to information for children. The Court held that children’s rights to access information can be restricted as compared to adults because the full right to access information is designed to be provided to a person who has knowledge, information and an ability to filter the right information for themselves: (“the degree of the guarantee [of the freedom to know] for youths must be said to be lower compared to that for adults”). The Gifu case has been criticised by constitutional scholars, but the court has since upheld several other ordinances of a similar nature using the same logic (see IDA Atsuhiko, *Constitution of Japan and the Youth: The Human Rights of Minors*, (2022), [https://dl.ndl.go.jp/view/prepareDownload?itemId=info%3Andljp%2Fpid%2F12175475&contentNo=1.](https://dl.ndl.go.jp/view/prepareDownload?itemId=info%3Andljp%2Fpid%2F12175475&contentNo=1)). [↑](#footnote-ref-14)
15. CRIN, *Children’s Access to Environmental Justice: South Africa*, (2023), <https://home.crin.org/a2j-south-africa>. [↑](#footnote-ref-15)
16. CRIN, *Children’s Access to Environmental Justice: Senegal*, (2023), section IV, <https://home.crin.org/a2j-reports-senegal>. “The ability of children to access information, including social media, online services and other sources of information (such as education more generally) is still limited.” [↑](#footnote-ref-16)
17. CRIN, *Children’s Access to Environmental Justice: Tanzania*, (2023), section IV, <https://home.crin.org/a2j-tanzania>. [↑](#footnote-ref-17)
18. Article 4(1)(c) of the Children Act (2016): “every child shall have the right to access any information to which a parent, guardian or other person in authority deems critical to the child’s wellbeing.”, <https://www.ilo.org/dyn/natlex/docs/ELECTRONIC/104395/127307/F-171961747/UGA104395.pdf>. See CRIN, *Children’s Access to Environmental Justice: Uganda,* (2023), section IV, <https://home.crin.org/a2j-uganda>. [↑](#footnote-ref-18)
19. CRIN, *Children’s Access to Environmental Justice: Mexico*, (2023), section I.V., [https://home.crin.org/a2j.](https://home.crin.org/a2j) [↑](#footnote-ref-19)
20. The Committee on the Rights of the Child has identified persistent obstacles to children gaining access to information, among which it identified poverty and illiteracy. The CRC stated that “children’s access to information and their right to freedom of expression remain insufficient”. CRC/C/Egy/3-4, [https://tbinternet.ohchr.org/\_layouts/15/treatybodyexternal/Download.aspx?symbolno=CRC/C/EGY/CO/3-4&Lang=En.](https://tbinternet.ohchr.org/_layouts/15/treatybodyexternal/Download.aspx?symbolno=CRC/C/EGY/CO/3-4&Lang=En) [↑](#footnote-ref-20)
21. Ibid., CRC/C/Egy/3-4. [↑](#footnote-ref-21)
22. *Supra* note 16. [↑](#footnote-ref-22)
23. CRIN, *Children’s Access to Environmental Justice: Argentina*, (2022), section IV., <https://home.crin.org/a2j-argentina>. [↑](#footnote-ref-23)
24. CRIN, *Children’s Access to Environmental Justice: Brazil*, (2022), section IV, <https://home.crin.org/a2j-brazil>. [↑](#footnote-ref-24)
25. CRIN, *Children’s Access to Environmental Justice: Egypt*, (Forthcoming), section IV, <https://home.crin.org/a2j-country-reports>. [↑](#footnote-ref-25)
26. CRIN, *Children’s Access to Environmental Justice: France*, (2022), section IV, <https://home.crin.org/a2j-france>. [↑](#footnote-ref-26)
27. CRIN, *Children’s Access to Environmental Justice: Morocco*, (2022), section IV, <https://home.crin.org/a2j-morocco>. [↑](#footnote-ref-27)
28. CRIN, *Children’s Access to Environmental Justice: Philippines*, (2022), section IV, <https://home.crin.org/a2j-philippines>. [↑](#footnote-ref-28)
29. *Supra* note 16. [↑](#footnote-ref-29)
30. *Supra* note 18. [↑](#footnote-ref-30)
31. CRIN, *Children’s Access to Environmental Justice: Uruguay*, (2023), section IV, <https://home.crin.org/a2j-uruguay>. [↑](#footnote-ref-31)
32. *Supra* note 23. [↑](#footnote-ref-32)
33. CRIN, *Children’s Access to Environmental Justice: Australia*, (2023), section IV, <https://home.crin.org/a2j-australia>. [↑](#footnote-ref-33)
34. CRIN, *Children’s Access to Environmental Justice: Canada*, (2022), section IV, <https://home.crin.org/a2j-canada>. [↑](#footnote-ref-34)
35. CRIN, *Children’s Access to Environmental Justice: Côte d’Ivoire*, (2022), section IV, <https://home.crin.org/a2j-cote-divoire>. [↑](#footnote-ref-35)
36. *Supra* note 24. [↑](#footnote-ref-36)
37. *Supra* note 19. [↑](#footnote-ref-37)
38. *Supra* note 27. [↑](#footnote-ref-38)
39. CRIN, *Children’s Access to Environmental Justice: Sweden*, (2022), section IV, <https://home.crin.org/a2j-sweden>. [↑](#footnote-ref-39)
40. The National Chemicals Programme also seeks to guarantee that primary and secondary school education promotes an understanding of chemicals issues and risk management. See CRIN, *Children’s Access to Environmental Justice: Finland*, (2023), section IV, <https://home.crin.org/a2j-finland>. [↑](#footnote-ref-40)
41. CRIN, *Children’s Access to Environmental Justice: Belgium*, (2022), section IV, <https://home.crin.org/a2j-belgium>. [↑](#footnote-ref-41)
42. CRIN, *Children’s Access to Environmental Justice: New Zealand*, (2023), section IV, <https://home.crin.org/a2j-new-zealand>. [↑](#footnote-ref-42)
43. CRIN, *Children’s Access to Environmental Justice: Norway,* (2022), section IV, <https://home.crin.org/a2j-norway>. [↑](#footnote-ref-43)
44. *Supra* note 28. [↑](#footnote-ref-44)
45. *Supra* note 15. [↑](#footnote-ref-45)
46. *Supra* note 16. [↑](#footnote-ref-46)
47. *Supra* note 18. [↑](#footnote-ref-47)
48. *Supra* note 26. [↑](#footnote-ref-48)
49. *Supra* note 41. [↑](#footnote-ref-49)
50. *Supra* note 17. [↑](#footnote-ref-50)
51. CRIN, *Children’s Access to Environmental Justice: Thailand*, (2022), section IV, <https://home.crin.org/a2j-thailand>. [↑](#footnote-ref-51)
52. Formal education has its limitations for educating children about environmental issues; often, there is a gap between government documents and guidelines and teachers’ approaches in individual classrooms. See *Supra* note 19. [↑](#footnote-ref-52)
53. *Supra* note 17. [↑](#footnote-ref-53)
54. CRIN, *Children’s Access to Environmental Justice: Germany*, (2023), section IV, <https://home.crin.org/a2j-germany>. [↑](#footnote-ref-54)
55. Education plans for French speaking Cantons include environmental education, such as in Vaud, where a sustainable environment is integrated in the curriculum. See CRIN, *Children’s Access to Environmental Justice: Switzerland*, (2022), Section IV, <https://home.crin.org/a2j-switzerland>. [↑](#footnote-ref-55)
56. Report of the Special Rapporteur on Toxics to the UN Human Rights Council on the Rights of Child and Toxics, A/HRC/33/41, (July 2016), para. 13, <https://www.ohchr.org/en/documents/thematic-reports/ahrc3341-report-rights-child-and-hazardous-substances-and-wastes>. Among other examples, EDCs in food and cosmetics and from other sources are estimated to burden the EU with over €100 billion in economic costs per year. [↑](#footnote-ref-56)
57. Ripple, W.J, et al., The 2023 state of the climate report: Entering uncharted territory, BioScience, (October 2023), <https://doi.org/10.1093/biosci/biad080>; Secretariats of the Basel, Rotterdam, Stockholm Conventions and the Minamata Convention on Mercury, Chemicals, wastes and climate change interlinkages and potential for coordinated action, (May 2021), <https://www.mercuryconvention.org/sites/default/files/documents/2021-07/Climate_Change_Interlinkages.pdf>; International Energy Agency, https://www.iea.org/energy-system/industry/chemicals; Friends of the Earth Germany BUND, Study Summary„ Blackbox Chemical Industry“, (2023), <https://www.bund.net/fileadmin/user_upload_bund/publikationen/chemie/study-summary-blackbox-cemical-industry-bund.pdf>. [↑](#footnote-ref-57)
58. OECD, Endocrine disrupting chemicals in freshwater: monitoring and regulating water quality, (October 2023), <https://www.oecd.org/environment/endocrine-disrupting-chemicals-in-freshwater-5696d960-en.htm>. [↑](#footnote-ref-58)
59. PAN North America, Pesticides and climate change: A vicious cycle, (winter 2022-2023), <https://www.panna.org/resources/pesticides-and-climate-change-vicious-cycle-report>. [↑](#footnote-ref-59)
60. *Ibid*. “Some pesticides are themselves greenhouse gases. The fumigant sulfuryl fluoride (used to fumigate commodities during transport and storage), is a powerful green- house gas. Emitting just one ton (0.91 tonnes) of sulfuryl fluoride is the equivalent of emitting 4,780 tons (4,336 tonnes) of CO2”. [↑](#footnote-ref-60)
61. XiaoZhi Lim, *How the chemicals industry’s pollution slipped under the radar*, The Guardian (November 2021), <https://www.theguardian.com/environment/2021/nov/22/chemicals-industry-pollution-emissions-climate>. [↑](#footnote-ref-61)
62. Committee on the Rights of the Child, General Comment No. 26 on children’s rights and the environment, with a special focus on climate change, CRC/C/GC/26, (August 2023), para. 34, <https://tbinternet.ohchr.org/_layouts/15/treatybodyexternal/Download.aspx?symbolno=CRC%2FC%2FGC%2F26&Lang=en>. [↑](#footnote-ref-62)
63. *Supra* note 33, section I.F. [↑](#footnote-ref-63)
64. *Supra* note 41, section I.F. [↑](#footnote-ref-64)
65. *Supra* note 34, section I.F. [↑](#footnote-ref-65)
66. *Supra* note 54, section I.F. [↑](#footnote-ref-66)
67. *Supra* note 19, section I.F. [↑](#footnote-ref-67)
68. *Supra* note 43, section I.F. [↑](#footnote-ref-68)
69. *Supra* note 16, section I.F. [↑](#footnote-ref-69)
70. CRIN, *Children’s Access to Environmental Justice: Spain*, (Forthcoming), section I.F., <https://home.crin.org/a2j-country-reports>. [↑](#footnote-ref-70)
71. *Supra* note 39, section I.F. [↑](#footnote-ref-71)
72. *Supra* note 55, section I.F. [↑](#footnote-ref-72)
73. *Supra* note 31, section I.F. [↑](#footnote-ref-73)
74. CRIN, *Children’s Access to Environmental Justice: United Kingdom*, (Forthcoming), section I.F., <https://home.crin.org/a2j-country-reports>. [↑](#footnote-ref-74)
75. CRIN, *Children’s Access to Environmental Justice: United States*, (Forthcoming: 2024), section I.F., <https://home.crin.org/a2j-country-reports>. [↑](#footnote-ref-75)
76. *Supra* note 23, section I.F. [↑](#footnote-ref-76)
77. *Supra* note 24, section I.F. [↑](#footnote-ref-77)
78. CRIN, *Children’s Access to Environmental Justice: El Salvador*, (Forthcoming), section I.F., <https://home.crin.org/a2j-country-reports>. [↑](#footnote-ref-78)
79. CRIN, *Children’s Access to Environmental Justice: Fiji*, (2022), section I.F. Available at: <https://home.crin.org/a2j-fiji>. [↑](#footnote-ref-79)
80. *Supra* note 27, section I.F.. [↑](#footnote-ref-80)
81. *Supra* note 42, section I.F. [↑](#footnote-ref-81)
82. *Supra* note 28, section I.F. [↑](#footnote-ref-82)
83. *Supra* note 15, section I.F. . [↑](#footnote-ref-83)
84. *Supra* note 17, section I.F. [↑](#footnote-ref-84)
85. *Supra* note 51, section I.F., <https://home.crin.org/a2j-thailand>. [↑](#footnote-ref-85)
86. *Supra* note 18, section I.F. [↑](#footnote-ref-86)
87. Substances selected for the National Pollutant Inventory, such as lead, include descriptions of why they are harmful, with children being considered in some instances See *supra* note 33, section I.F. [↑](#footnote-ref-87)
88. *Supra* note 85. The Environmental Protection Agency publishes a report presenting data on children’s environmental health that is updated periodically. It contains certain analysis regarding data relating to childhood levels of exposures to various chemicals, such as lead and mercury, among others. See, America's Children and the Environment, EPA, <https://www.epa.gov/americaschildrenenvironment>. [↑](#footnote-ref-88)
89. EEA, European Air Quality Portal, <https://eeadmz1-cws-wp-air02-dev.azurewebsites.net/>. [↑](#footnote-ref-89)
90. HEAL position paper “EU’s clean air for health transition 2021-2030 HEAL 10 demands”, (September 2021), <https://www.env-health.org/wp-content/uploads/2021/09/HEAL_10-demands_-air-quality_September21.pdf>. [↑](#footnote-ref-90)
91. EEB, NGO preliminary assessment of the European Commission’s proposal for revised IED and E-PRTR, (April 2022), <https://eeb.org/library/ngo-preliminary-assessment-of-the-european-commissions-proposal-for-revised-ied-and-e-prtr/>. [↑](#footnote-ref-91)
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93. Joint NGO-Industry position, Trialogues: Industrial Emissions Portal Regulation and Industrial Emissions Directive Review: Maintaining health and environmental protection ambition (PFAS) and open exchange on best practice, (November 2023), <https://eeb.org/wp-content/uploads/2023/11/Joint-Position-Industry-NGO-on-PortalReg-PFAS-and-IED-CBI-BREF-and-EQS.pdf> [↑](#footnote-ref-93)
94. EEB, The EU indulges the largest industrial polluters with new emissions rules, (November 2023), <https://eeb.org/the-eu-indulges-the-largest-industrial-polluters-with-new-emissions-rules/>. [↑](#footnote-ref-94)
95. The Forever Pollution Project: Journalists tracking PFAS across Europe, <https://foreverpollution.eu/>; Gary Dagorn, Raphaëlle Aubert, Stéphane Horel, Luc Martinon and Thomas Steffen, *'Forever pollution': Explore the map of Europe's PFAS contamination*, Le Monde (February 2023), <https://www.lemonde.fr/en/les-decodeurs/article/2023/02/23/forever-pollution-explore-the-map-of-europe-s-pfas-contamination_6016905_8.html>. [↑](#footnote-ref-95)