

Submission to the UN Special Rapporteur on human rights and climate change

Call for inputs on access to information on climate change and human rights

June 2024

Introduction

The right of access to information, along with other procedural rights, is extremely relevant in the context of climate change as it is pivotal for affected communities, Indigenous Peoples and the general public at large to be aware of the drivers and impacts of climate change, as well as the implications of policies and measures to counter the effect of climate change. The right of access to information is also essential for the effective enjoyment of the rights to participation and access to justice. The Intergovernmental Panel on Climate Change (IPCC) has acknowledged the importance of procedural rights in effective climate policy making: “*Procedural justice addresses the fairness of the processes by which decisions are made and the legitimacy of those making the decisions. Criteria include transparency, the application of neutral principles among parties, respect for participants’ rights, and inclusive participation in decision-making, which often takes the form of participatory processes.*”¹ Procedural rights, including access to information, are a key component of international human rights law and of environmental governance, including Principle 10 of the 1992 Rio Declaration,² Article 12 of the Paris Agreement,³ and the legally-binding Aarhus Convention and the Escazú Agreement.

The present submission focuses on three distinct areas, all relevant to climate change : The petrochemical sector, climate impact disclosure duties of corporate actors, and geoengineering technologies. As it is explained below, the right of access to information is essential in all three cases, as it is instrumental to countering measures and policies that exacerbate climate change, undermine human rights and destroy ecosystems. With regard to the petrochemical sector and disclosure duties of corporate actors, the impacts that related activities have on climate change and the relevant climate risks associated with these require States to require robust and mandatory disclosure of relevant information. In the context of geoengineering technologies, access to information is essential given the very significant negative impacts on ecosystems and human rights that these technologies potentially have, including in the experiment phase.

¹ IPCC, 2022: Climate Change 2022: Impacts, Adaptation, and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [H.-O. Pörtner, D.C. Roberts, M. Tignor, E.S. Poloczanska, K. Mintenbeck, A. Alegría, M. Craig, S. Langsdorf, S. Löschke, V. Möller, A. Okem, B. Rama (eds.)]. Cambridge University Press. In Press, at 1-51.

² “[...] At the national level, each individual shall have appropriate access to information concerning the environment that is held by public authorities, including information on hazardous materials and activities in their communities, and the opportunity to participate in decision-making processes [...]”.

³ “Parties shall cooperate in taking measures, as appropriate, to enhance climate change education, training, public awareness, public participation and public access to information, recognizing the importance of these steps with respect to enhancing actions under this Agreement.”

We respectfully call upon the Special Rapporteur to include the following recommendations in her report:

- **States should impose obligations on petrochemicals companies to disclose detailed and disaggregated information. Key areas of disclosure should include polymer production quantities, types, imports, exports, greenhouse gas (GHG) emissions, other toxic emissions, current production capacity and expansion plans.**
- **States should put in place systems for robust and mandatory disclosure and reporting of businesses' emissions (Scope 1, 2, and 3) and their exposure to climate risks.**
- **States should ensure that the right of access to information, along with other procedural rights and the right to Free, Prior and Informed Consent, are upheld in the context of geoenvironmental research, experimentation and deployment.**

The Petrochemical Sector

Plastics are a significant driver of climate change due to the substantial GHG emissions across their full lifecycle. 90% of these emissions come from the extraction of raw materials and the production processes,⁴ which involve converting feedstocks—99% of which are fossil fuels—into polymers within the petrochemical industry. In 2019, plastic production emitted about 2.24 gigatonnes of carbon dioxide equivalent (GtCO₂e), accounting for 5.3% of global GHG emissions (more than the emissions from the aviation sector by that same year).⁵ If plastic production continues to increase as expected (up to 4% per year)⁶, its associated GHG emissions could triple by 2050. This would consume up to 31% of the remaining global carbon budget,⁷ undermining the achievement of the 1.5°C goal of the Paris Agreement and posing a severe threat for the right to a healthy environment, as well as on the right to health and others.

Key information on the climate impacts of plastic production includes production quantities, types of polymers, the stage of the production processes, the projected new or expansion of production facilities and the emissions associated with these facilities. With current technologies, it is not possible to decouple fossil fuel use from plastic production, whether as feedstocks or energy sources. Due to the energy-intensive nature of polymer production, the potential for reducing GHG emissions

⁴ OECD. *Global Plastics Outlook: Economic Drivers, Environmental Impacts and Policy Options*. Paris: OECD Publishing, 2022. <https://doi.org/10.1787/de747aef-en>.

⁵ Karali, Nihan, Nina Khanna, and Nihah Shar. 2024. *Climate Impact of Primary Plastic Production*. Lawrence Berkeley National Lab, p. 3. <https://escholarship.org/uc/item/12s624vf>

⁶ OECD. *Global Plastics Outlook: Economic Drivers, Environmental Impacts and Policy Options*. Paris: OECD Publishing, 2022. <https://doi.org/10.1787/de747aef-en>.

⁷ Karali, Nihan, Nina Khanna, and Nihah Shar. 2024. *Climate Impact of Primary Plastic Production*. Lawrence Berkeley National Lab, p. 3. <https://escholarship.org/uc/item/12s624vf>

by altering the energy grid is limited and unlikely. Even in the scenario in which changes in feedstocks and in the energy grid can happen, if production quantities continue to rise, plastics will still consume a significant portion of the global carbon budget by 2050.

The emissions associated with plastic production also vary depending on the type of polymer, with more complex production processes resulting in higher GHG emissions. Additionally, the majority of GHG emissions occur during the production of chemical precursors, including monomers, which serve as the primary building blocks for all plastics. Notably, the expansion of plastic production facilities is a key driver of climate change and negative impacts on human rights, particularly the right to health. Industry projections indicate that over 1,400 highly emission-intensive facilities will be constructed in the next four years. Hazardous emissions posing risks to human rights include GHG emissions as well as emissions of toxic chemicals, including but not limited to carcinogens like polycyclic aromatic hydrocarbons (PAHS), benzene, sulfur dioxide, and propylene oxide, among others.

Publicly accessible information on key variables is limited, hindering States' ability to address the climate and human rights impacts of plastic production per international human rights obligations. The petrochemical sector, where plastics are produced, lacks transparency and disclosure obligations. Polymer producers have benefitted from the lack of transparency often at the expense of environmental protection, public health, and human rights. For example, ExxonMobil has faced allegations of withholding information about the environmental impacts of its operations, particularly its contributions to climate change.⁸ By not fully disclosing its own scientific research on climate change dating back to the 1970s⁹, ExxonMobil avoided immediate regulatory pressure. This allowed the company to delay costly investments in cleaner technologies and continue profitable operations without significant environmental controls.

Similarly, the case of Milieudefensie et al. v. Royal Dutch Shell and the subsequent ruling by a district court in The Hague ordering Shell to cut its absolute carbon emissions by 45% by 2030 compared to 2019 levels¹⁰ also illustrated how Shell benefited from a lack of transparency about the environmental and climate impacts of its operations. In 1988, Shell's internal report detailed its knowledge of climate science, its role in CO2 emissions, and potential societal responses. It urged early policy action despite scientific uncertainties and highlighted fossil fuels' impact on climate change and industry vulnerabilities. The report also includes this precautionary warning: "However, by the time the global warming becomes detectable it could be too late to take effective countermeasures to reduce the effects or even to stabilize the situation."¹¹ Despite this, the company continued with business as usual and benefits from uncontrolled expansion of its petrochemical business till date¹².

⁸ "Exxon and the Oil Industry Knew About the Climate Crisis", Greenpeace, <https://www.greenpeace.org/usa/fighting-climate-chaos/exxon-and-the-oil-industry-knew-about-climate-crisis/>

⁹ "ExxonMobil: Oil giant predicted climate change in 1970s - scientists", BBC, 12 January 2023, <https://www.bbc.com/news/science-environment-64241994#>

¹⁰ "Explainer: Shell appeals against Dutch court's landmark climate ruling", Reuters, 2 April 2024 <https://www.reuters.com/sustainability/shell-appeals-against-dutch-courts-landmark-climate-ruling-2024-04-02/#:~:text=WHAT%20WAS%20THE%20RULING%3F,around%2095%25%20of%20Shell's%20emissions.>

¹¹ "1988 Shell Confidential Report "The Greenhouse Effect"", Shell, 1988, <http://www.climatefiles.com/shell/1988-shell-report-greenhouse/>

¹² "Our Growth Projects", Royal Dutch Shell <https://www.shell.com/business-customers/chemicals/about-shell-chemicals/our-growth-projects.html>

The poor disclosure practices on emissions and other environmental data has resulted in reduced regulatory scrutiny and poor compliance in several countries. Companies' commitments to reduce their climate and environmental footprints contradict their growth plans. Major petrochemical companies have made environmental and climate promises, but now they are entering a phase in which they must meet stringent implementation targets. For the most part, the industry as a whole and most companies in particular have not adopted uniform standards of transparency and accountability or made the disclosures needed to evaluate their performance.¹³

There are successful examples where national laws or international cooperation effectively supported public access to information on climate change and human rights in relation to plastic production. At the national level, some countries have started to require data disclosure from plastic producers. India has recently published a notice that requires chemical and petrochemical industries, covering plastic producers, to submit monthly data that includes production quantities, installed capacity and trade.¹⁴ At the international level, the OECD have put together data on production quantities, polymer types and associated GHG emissions, with the limitation of these not being disaggregated by country.¹⁵ The Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR Convention) put together in 2021 a report containing information on polymer production quantities, polymer types and enterprises in convention members, indicating production capacity.¹⁶ However, presently, publicly available information is scattered and fragmented. This hampers effective and informed decision-making at global, regional, and national levels to tackle the climate and human rights impacts linked to plastic production.

We respectfully call on the Special Rapporteur to recommend that States impose obligations on petrochemicals companies to disclose detailed and disaggregated information. Key areas of disclosure should include polymer production quantities, types, imports, exports, greenhouse gas emissions, other toxic emissions, current production capacity and expansion plans.

Corporate actors' Disclosure of Climate Impact Information

Reducing and avoiding greenhouse gas emissions in line with the best available science requires reshaping the whole global socioeconomic and energy system.¹⁷ Given the centrality of corporate actors in climate change-inducing activities - beyond those directly involved in petrochemical activities - only the complete and inclusive knowledge and understanding of a company's impact on the

¹³ "Petrochemical producers remain on a business as usual path in the face of international criticism", IEEFA U.S., 23 January 2024,

<https://ieefa.org/articles/ieefa-us-petrochemical-producers-remain-business-usual-path-face-international-criticism>

¹⁴ Ministry of Chemicals and Fertilizers, Department of Chemicals and Petrochemicals. "Notification, New Delhi, 19 February 2024." Accessed May 30, 2024. <https://chemicals.gov.in/sites/default/files/notification/notification.pdf>.

¹⁵ OECD. *Global Plastics Outlook: Economic Drivers, Environmental Impacts and Policy Options*. Paris: OECD Publishing, 2022. <https://doi.org/10.1787/de747aef-en>.

¹⁶ OSPAR Commission. "Production and Consumption of Plastics." OSPAR Quality Status Report 2023. Accessed May 30, 2024.

<https://oap.ospar.org/en/ospar-assessments/quality-status-reports/qsr-2023/other-assessments/production-and-consumption-plastics/>.

¹⁷ European Environment Agency, *Climate change mitigation: reducing emissions* (March, 2024). <https://www.eea.europa.eu/en/topics/in-depth/climate-change-mitigation-reducing-emissions>

environment and climate change will enable corporations, communities and individual business owners to take appropriate climate action.

To attain the knowledge and awareness necessary to take action to mitigate climate change businesses require robust, reliable and transparent information on the occurrence of emissions and climate risks within their operations.¹⁸ A business's impact on climate change is not limited to its own activities – the emissions created in both its supply and distribution chain, and the emissions created in the consumption of its products, are all part of its climate impact. A business can only take action on emissions in its value added chain and in the consumption of its products if it has information on both its own and its business partners' climate impacts. Climate-related information disclosure is a key enabler of corporate climate action.¹⁹

Accurate and reliable information on the climate impact of individual businesses and companies is not readily available. Corporations are often unwilling to divulge information on climate change related impact. Indeed, companies frequently engage in 'greenwashing', 'misleading the public to believe that a company or other entity is doing more to protect the environment.'²⁰ To ensure that businesses have access to reliable, robust, and transparent climate impact data and information, mandatory disclosure of relevant information is imperative.

While new disclosure rules have made certain climate-related disclosures mandatory in many countries, most notably in the EU, these limited disclosure requirements do not provide a complete picture of GHG emissions or corporate responsibility for climate change. Furthermore, disclosure obligations 'vary widely in their scope and granularity, which affects the conclusions that can be drawn from the disclosures and how they can be used.'²¹ Only the uniform, consistent, and mandatory disclosure of the impact of the totality of a business' operations on climate – that is disclosure of its role in creating GHG emissions and the GHG emissions in its value chain – will enable appropriate corporate climate action. A uniform, consistent, robust and mandatory disclosure and reporting system of all business emissions (Scope 1, 2, and 3) and its exposure to climate risks and its transition to net zero are imperative to enable informed and consequential climate change mitigation action. Mandatory disclosure is also required to monitor progress toward climate change mitigation goals.²²

Importantly, the mandatory disclosure of climate change impact cannot be insulated from the protection of human rights. Climate change mitigation and the transition to a fossil free economy must occur within the parameters of international human rights law. As the Office of the High Commissioner for Human Rights (OHCHR) stated, businesses 'must be accountable

¹⁸ Amanda Carter, Corporate Climate Disclosure Has Passed a Tipping Point. Companies Need to Catch Up', *World Resources Institute* (May 6, 2024).
<https://www.wri.org/insights/tipping-point-for-corporate-climate-disclosure#:~:text=Climate%2Drelated%20disclosures%20are%20a,risks%20occur%20within%20their%20businesses>.

¹⁹ *Ibid.*

²⁰ UN Climate Action, <https://www.un.org/en/climatechange/science/climate-issues/greenwashing>

²¹ Ian Higham, Catherine Higham, Joe Feyertag, Tiffanie Chan, Jared Sharp, Filipe Da Silva, Valentin Jahn and Nelson Diaz Puerto, *Submission to the UN consultation on corporate accountability in the context of human rights and climate change*, Grantham Research Institute on Climate Change and the Environment/London School of Economics and Political Science (January 2024).

²² European Environment Agency, *supra* n. 15.

for their climate impacts and participate responsibly in climate change mitigation and adaptation efforts *with full respect for human rights*.²³ ‘Precisely because climate, environmental and human rights challenges are fundamentally interrelated, a holistic approach is required for mandatory disclosure of climate change information that incorporates and reflects human rights standards.’²⁴

We respectfully call on the Special Rapporteur to include a recommendation to States to put in place systems for robust and mandatory disclosure and reporting of businesses' emissions (Scope 1, 2, and 3) and their exposure to climate risks.

Geoengineering Technologies

In the context of access to information on climate change and human rights, we encourage the Special Rapporteur to address the issue of geoengineering. “Geoengineering” refers to a set of large-scale technological interventions in the Earth’s natural systems to counteract some of the effects of climate change. Geoengineering technologies are extremely relevant in the context of the right to access to information, given the dire impacts on ecosystems and human rights, including cultural rights, associated with their deployment. By their very nature - that is large or even planetary scale interventions with Earth systems - deployment of these technologies “could seriously interfere with the enjoyment of human rights for millions and perhaps billions of people” according to the Human Rights Council Advisory Committee report specifically on “New Technologies for Climate Protection”.²⁵ The report also found that deployment of geoengineering technologies “would have a massive and disproportionate impact on Indigenous Peoples whose traditional lands and territories are particularly exposed and at risk of experimental uses”.²⁶

Research, experimentation with and deployment of geoengineering technologies therefore clearly pose important questions about effective participation, access to information and access to justice of those individuals, groups and communities that are affected by them, as well as the question of how to ensure Free, Prior and Informed Consent.

As explained by the Committee on Economic, Social and Cultural Rights (CESCR) in its General Comment on the Right to Science, “participation includes the right to information and participation in controlling the risks involved in particular scientific processes and its applications”. Experiments and deployment of geoengineering technologies often happen without adequate participation of and access to information by the affected communities.

²³ OHCHR, ‘Key Messages on Human Rights and Climate Change’, para 8, emphasis added https://www.ohchr.org/Documents/Issues/ClimateChange/KeyMessages_on_HR_CC.pdf.

²⁴ Chiara Macchi, ‘The Climate Change Dimension of Business and Human Rights’, *Business and Human Rights Journal*, 6 (2021), 93, 108-09. doi:10.1017/bhj.2020.25

²⁵ Human Rights Council Advisory Committee, Report on “Impact of new technologies intended for climate protection on the enjoyment of human rights (10 August 2023), UN Doc. A/HRC/54/47,

²⁶ Ibid.

The SCoPEX case²⁷ and the Arctic Ice Project²⁸ are emblematic of a structural lack of participation and consultation of rights holders, including Indigenous Peoples.²⁹ The Aarhus Convention and the Escazù Agreement provide an important framework in establishing States' obligations regarding procedural rights in the context of environmental policy making - and thus geoengineering interventions - with regard especially to meaningful public participation, access of information and access to justice.³⁰ As the CESCR specified, participation and transparency are essential for the precautionary principle, "because the risks and potential of some technical advances or some scientific research should be made public in order to enable society, through informed, transparent and participatory public deliberation, to decide whether or not the risks are acceptable".³¹

The Advanced Research and Invention Agency (ARIA) set up by the UK government in 2022 is also emblematic of the risks to procedural rights posed by research institutions, even when they are public. ARIA has been mandated to pursue scientific breakthroughs,³² including in the context of climate change, including on "managing our climate and weather through responsible engineering",³³ which sets out to research geoengineering interventions. The government amended the Freedom of Information Act - a cornerstone of British transparency law enabling the public, including journalists or scientists, to request and view information held by public authorities - to exclude ARIA from its scope of application. The Advanced Research and Invention Agency Act 2022 explicitly excludes the agency from the Freedom of Information Act (2000) - separating ARIA from all other "public authorities".³⁴ A policy statement released by the department of Business, Energy and Industrial Strategy (BEIS) explained their intention to exempt the agency from Freedom of Information requests saying that

²⁷See The Arctic Institute, Centre for Circumpolar Security Studies, "Sámi Council resistance to SCoPEX highlights the complex questions surrounding geoengineering and consent", (20 May 2021): <https://www.thearcticinstitute.org/sami-council-resistance-scopex-highlights-complex-questions-geoengineering-consent/>

²⁸ SCoPEX and the Arctic Ice Projects are two solar radiation management experimental projects planned in indigenous lands, which encountered Indigenous groups' resistance. The two projects are mentioned in Tonatierra, Submission to the United Nations Human Rights Council Advisory Committee in response to request for input on new climate technologies and human rights per UN HRC Resolution 48/14: <https://www.ohchr.org/sites/default/files/2022-05/20220528-tonatierra-ntcp-and-hr.pdf>

²⁹ See Tonatierra (fn 18), on the violations of the right to free, prior and informed consent, p.5.

³⁰ In that regard, an international voluntary standard which covers geoengineering was discussed within the International Standardisation Organisation (ISO) process in 2019. NGO back then raised concerns that the highly technical and confidential nature of ISO processes prevented communication of these discussions, in breach of the Almaty guidelines. In addition, NGOs viewed the proposed standard as stepping beyond the remit of the ISO by an enabling framework for geoengineering projects, thereby pre-empting democratic discussion and public engagement with policy/law-making on the controversial issue of geoengineering in MEA frameworks. The proposed ISO standard was never agreed and instead downgraded to a technical report. See sec. II, p. 2, European ECO Forum, Submission to the 24th Working Group of the Parties to the Aarhus Convention Promotion of the principles of the Convention in international forums, raising concerns about the integration of geo-engineering within ISO processes, and its potential impacts on the procedural environmental rights protected under the Convention, available at https://unece.org/fileadmin/DAM/env/pp/wgp/WGP_24/Statements_and_Presentations/Item_8_EuECOForum.pdf

³¹ CESCR General comment No. 25 (2020), (fn 15), para 57

³² BBC News. 2021. "UK to Launch 'High Risk' Science Agency," February 19, 2021, sec. Business. <https://www.bbc.co.uk/news/business-56117560>.

³³ "What We're Working On." n.d. Aria. <https://www.aria.org.uk/what-were-working-on/>

³⁴ "Advanced Research and Invention Agency Act 2022." 2022. Legislation.gov.uk. 2022. <https://www.legislation.gov.uk/ukpga/2022/4/enacted>.

“Noting that ARIA will be a small body with minimal administrative capacity, we will remove the burden of processing Freedom of Information requests.”³⁵ However, over 46,000 public authority bodies are subject to the Freedom of Information Act, including many bodies with smaller budgets.³⁶

A successful challenge by journalists from OpenDemocracy obtained BEIS documents showing how ministers and civil servants struggled to find a justification for this exemption from the Freedom of Information Act. They found that the Prime Minister’s office had initially tried to have ARIA excluded from the Freedom of Information Act under an existing exemption for the security services, even though the body has no security function. They also found that former BEIS minister Amanda Solloway “gave a steer that the rationale for pursuing the FOI exemption” should be focused on the need for ARIA to “maintain a competitive advantage”. However the documents they obtained showed that a civil servant pointed out that authorities covered by the FOI Act were already protected from releasing genuinely commercially sensitive information.”

Former information commissioner Elizabeth Denham has also spoken out against ARIA’s exemption. She told Members of Parliament on the Public Administration and Constitutional Affairs Committee “The main justification the government has given for excluding ARIA from FOI is because, in their view, ARIA’s activities will be of significant public interest and will trigger FOI requests which ARIA would struggle to handle. But this is a problem of the government’s own making because they chose not to provide ARIA with the resources to deal with FOI in the first place.”³⁷

This has provided an important reminder of the dangers of insufficient procedural rights duties on institutions that have the mandate to conduct research and experimentation of technologies whose effects are uncertain and potentially dangerous.

The updated Programme Thesis that has recently been published by ARIA confirms the lack of robust standards in absence of effective regulation from the State. Its section on Transparency, Public Participation and Consultation” in fact states that “[w]herever possible, those conducting field trials will be required to notify and consult those who could be reasonably be considered as likely to be affected by the trials” and that “detailed plans for the field trials, and the key decisions taken in developing these plans, will be consulted upon *as transparently as possible* well in advance of any trial”. The lack of robust standards for effective participation and consultation of the affected communities and the general public highlights the need for States to require private and public institutions mandatory processes to consult and inform.

More recently, Alameda City Council shut down the first open air Marine Cloud Brightening Experiment in the US days after it commenced, with City Council Members specifically citing a lack of information and transparency in their ultimate decision to prevent it from proceeding.³⁸ Furthermore,

³⁵ “Advanced Research and Invention Agency (ARIA): Policy Statement.” n.d. GOV.UK. <https://www.gov.uk/government/publications/advanced-research-and-invention-agency-aria-statement-of-policy-intent/advanced-research-and-invention-agency-aria-policy-statement>.

³⁶ “Public Authorities - Found 24278 Public Authorities.” 2019. WhatDoTheyKnow. 2019. <https://www.whatdotheyknow.com/body/list/all>.

³⁷ Corderoy, Jenna. 2022. Review of Revealed: Why Government Tried to Shield £800m Research Agency from Scrutiny. OpenDemocracy, July 22. <https://www.opendemocracy.net/en/aria-foi-information-commissioner-shield-transparency/>.

³⁸ <https://www.ciel.org/news/ciel-welcomes-alamedas-no-to-geoengineering-experiment/>

correspondence with the Council indicates that the Lisjan Nation, within whose Tribal territory the experiment was being held, were not adequately informed that the experiment was taking place.³⁹

With specific regard to Indigenous Peoples, the CESCR and the Advisory Committee have made it clear that Free, Prior and Informed Consent is imperative when research is conducted that could have an impact on Indigenous Peoples.⁴⁰ Procedural rights also ensure that research is conducted in a legitimate manner, including legitimate rightsholders. As the Advisory Committee has also highlighted in its report, there are huge vested interests from corporations, which tend to “exaggerate certainties of a technology in question, while underplaying uncertainties”⁴¹. Providing transparent, participatory processes help ensure that the affected groups and communities are meaningfully informed and included in decisions and that conflict of interest and corporate capture are identified and addressed.

Yet, given the huge scale of potential field experimentation and, eventually, deployment of technologies such as solar radiation modification or marine geoengineering that by nature have transboundary effects and would impact global ecosystems, the question arises of whether it would even be possible to ensure adequate participation and other procedural rights of the communities affected.

We respectfully call on the Special Rapporteur to include a recommendation to States to ensure that the right to access to information, along with other procedural rights and the right to Free, Prior and Informed Consent are upheld in the context of geoengineering research or experiments.

³⁹ See page 121 of the document entitled Correspondence - updated 6/ 3

⁴⁰ CESCR General Comment No. 25 (2020), (fn. 15), para 40; Human Rights Council Advisory Committee Report on “Impact of new technologies intended for climate protection on the enjoyment of human rights, (fn 4), para 55.

⁴¹ Human Rights Council Advisory Committee Report on “Impact of new technologies intended for climate protection on the enjoyment of human rights, (fn 4),para 21