# INTER-AMERICAN COURT ON HUMAN RIGHTS

## *REQUEST FOR AN ADVISORY OPINION ON CLIMATE EMERGENCY AND HUMAN RIGHTS (RE: REPUBLICS OF COLOMBIA AND CHILE)*

## EXPERT OPINION

**THE NOTRE DAME LAW SCHOOL HUMAN RIGHTS CLINIC (NDLS GHRC)**
**in collaboration with the**
**THE NOTRE DAME REPARATIONS DESIGN AND COMPLIANCE LAB**
**(ND REPARATIONS LAB)**

**THE UNIVERSITY OF NOTRE DAME**

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The undersigned Professors, with the collaboration of their respective research students in the Notre Dame Law School Global Human Rights Clinic (hereafter, "NDLS GHRC") and the Notre Dame Reparations Design and Compliance Lab (hereafter, "Notre Dame Reparations Lab"), respectfully submit this Expert Opinion for this Honorable Court's consideration in its proceedings on the *Request for an advisory opinion on the Climate Emergency and Human Rights submitted to the Inter-American Court of Human Rights by the Republic of Colombia and the Republic of Chile:*

1. Noting the request of the Republic of Colombia and the Republic of Chile for this Honorable Court to "provide guidance towards human rights-based solutions with an intersectional perspective",[7] this Expert Opinion deliberately draws on interdisciplinary methods that weave international law, international human rights law, jurisprudence, quantitative tools of political science, and qualitative tools of social science research to assist this Honorable Court in its task of addressing the manifold questions brought by the Republic of Colombia and the Republic of Chile. **Annex A** of this Expert Opinion contains the submission of the Notre Dame Reparations Lab on the standards of reparations adopted by domestic and international courts around the world in generating reparative measures in climate change cases throughout the world. **Annex B** of this Expert Opinion is the case study report of Principal Investigator Garrett Pacholl on Climate Reparations Perceptions held by various stakeholders (local communities, indigenous communities, government regulators, academics, among others) of a sample small island developing State (the Philippines) besieged by a multitude of challenges from climate change emergencies. We respectfully submit that the nature of the queries posed by both the Republic of Chile and the Republic of Colombia necessitate this comprehensive and evidence-based approach to appropriately inform States of their obligations under international law and the effectiveness required for any measures to implement such obligations.

[7] *Request,* at p. 2.

## I. PRELIMINARY OBSERVATIONS ON INTERSECTIONALITY AND THE PRINCIPLE OF EFFECTIVENESS IN THE SIMULTANEOUS APPLICATION OF CLIMATE CHANGE LAW AND INTERNATIONAL HUMAN RIGHTS LAW

### A. The Intersectionality of Climate Change Law and International Human Rights Law

2. The intersectionality of climate change law and international human rights law has long been embedded in the most foundational global treaties on climate change, *precisely to ensure the* ***effectiveness*** *of any climate change measures and continuum of policy strategies that States would adopt in the present and future*. The 1992 United Nations Framework Convention on Climate Change (UNFCCC) set, as part of the objects and purposes of this treaty, the fundamental recognition that:

> "*Acknowledging* that the global nature of climate change calls for the widest possible cooperation by all countries and their participation in an effective and appropriate international response, in accordance with their common but differentiated responsibilities and respective capabilities and their social and economic conditions…'
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> *Recalling* the pertinent provisions of the Declaration of the United Nations Conference on the Human Environment, adopted at Stockholm on 16 June 1972,
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> *Recalling also* that States have, **in accordance with the Charter of the United Nations and the principles of international law**, the sovereign right to exploit their own resources pursuant to their own environmental and developmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction…"[8] (Emphasis added.)

3. As seen in the above quoted paragraphs, States' sovereign rights to exploit their own resources remained subject to the requirement that the same be *in accordance with the Charter of the United Nations and the principles of international law*, without qualification as to which specific international law norms applied to such sovereign rights. The 1972 Declaration of the United Nations Conference on the Human Environment (also known as the Stockholm Declaration) further elaborates on the broad

[8] United Nations Framework Convention on Climate Change, 1992, Preamble, seventh to ninth paragraphs, full text at https://unfccc.int/resource/docs/convkp/conveng.pdf (last accessed 1 September 2023).

applicability of all (or the entirety) of international law to the same conception of ecosystem damage that might ensue from exercising the same sovereign rights of States to exploit their own resources:

> "Principle 1: **Man has the fundamental right to freedom, equality and adequate conditions of life, in an environment of a quality that permits a life of dignity and well-being, and he bears a solemn responsibility to protect and improve the environment for present and future generations**. In this respect, policies promoting or perpetuating apartheid, racial segregation, discrimination, colonial and other forms of oppression and foreign domination stand condemned and must be eliminated.
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> …
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> Principle 6: The discharge of toxic substances or of other substances and the release of heat, in such quantities or concentrations as to exceed the capacity of the environment to render them harmless, **must be halted in order to ensure that serious or irreversible damage is not inflicted upon ecosystems**. The just struggle of the peoples of all countries against pollution should be supported.
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> Principle 7: States shall take **all possible steps to prevent pollution of the seas** by substances that are liable to create hazards to human health, to harm living resources and marine life, to damage amenities or to interfere with other legitimate uses of the sea.
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> Principle 8: **Economic and social development is essential** for ensuring a favourable living and working environment for man and for creating conditions on earth that are necessary for the improvement of the quality of life.
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> …
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> Principle 11: **The environmental policies of all States should enhance and not adversely affect the present or future development potential of developing countries, nor should they hamper the attainment of better living conditions for all**, and appropriate steps should be taken by States and international organizations with a view to reaching agreement on meeting the possible national and international economic consequences resulting from the application of environmental measures.
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> …
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> Principle 21: **States have, *in accordance with the Charter of the United Nations and the principles of international law*, the sovereign right to exploit their own resources pursuant to their own environmental policies**, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the

environment of other States or of areas beyond the limits of national jurisdiction."[9] (Emphasis and italics added.)

4. The 2015 Paris Agreement sharpened the applicability of the Charter of the United Nations and principles of international law by explicitly conditioning climate actions on the respect, promotion, and consideration of State obligations under international human rights law:

> "*Acknowledging* that climate change is a common concern of humankind, **Parties should, when taking action to address climate change, *respect, promote and consider their respective obligations on human rights, the right to health, the rights of indigenous peoples, local communities, migrants, children, persons with disabilities and people in vulnerable situations and the right to development,*** as well as gender equality, empowerment of women and intergenerational equity…"[10] (Emphasis and italics added.)

5. The intersectionality between the climate emergency and international human rights law that the Republic of Colombia and Republic of Chile framed before this Honorable Court, therefore, is a matter of interpretation of existing international treaty norms that already prescribe climate actions to be simultaneously undertaken while continuing to ensure respect for, promotion of, and continued applicability and consideration of international human rights law. This intersectionality was further deepened when the United Nations Human Rights Council explicitly recognized the right to a clean, healthy, and sustainable environment in its Resolution 48/13 dated 18 October 2021.[11] This same Resolution recognized that "the right to a clean, healthy and sustainable environment as a human right that is important for the enjoyment of human rights….[which is] related to other rights

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[9] 1972 Declaration of the United Nations Conference on the Human Environment, Stockholm, 5-16 June 1972, at https://documents-dds-ny.un.org/doc/UNDOC/GEN/NL7/300/05/PDF/NL730005.pdf?OpenElement (last accessed 1 September 2023).

[10] Paris Agreement, 2015, Preamble, twelfth paragraph, full text at https://unfccc.int/sites/default/files/english_paris_agreement.pdf (last accessed 1 September 2023).

[11] United Nations Human Rights Council, *The human right to a clean, healthy and sustainable environment,* A/HRC/RES/48/13, 18 October 2021.

and existing international law…[and whose promotion] requires the full implementation of the multilateral environmental agreements under the principles of international environmental law."[12]

6. Thus, before any opinion can be proferred on the questions brought in these proceedings to this Honorable Court by the Republic of Chile and the Republic of Colombia, we first emphasize that *the intersectionality between climate change law and international human rights law already exists as a matter of law* under the foundational sources of international law that address climate change (e.g. the United Nations Framework Convention on Climate Change, the Paris Agreement, and the customary international law norms that have since crystallized from the articulation and subsequent State practice of the Rio Principles in the Stockholm Declaration). Bringing this intersectionality to bear through treaty interpretation, in particular, requires this Honorable Court's own vigilance with respect to **the principle of effectiveness (*ut res magis valeat quam pereat*) which is particularly distinct for international human rights treaties, and which this Honorable Court has itself recognized in its own jurisprudence**:

> "Even though all human rights treaties have their own distinct context and wording, there is nevertheless significant convergence around the notion that the core interpretive task for any interpreter is to make human rights treaty provisions 'effective, real, and practical' for individuals as rights-holders under international law. This is sometimes called the principle of effectiveness (*ut res magis valeat quam pereat*). Effectiveness is an overarching approach to human rights treaty interpretation. It animates a range of other more fine-grained, specific interpretive principles developed in the context of each human rights treaty. Examples include the interpretive principles of 'autonomous concepts', 'living instrument', and 'practicality' in the [European Court of Human Rights] context; the 'responsiveness to African circumstances' in the case of the African Commission on Human and Peoples' Rights; the consideration of the 'real situation' in the case of the Inter-American Court of Human Rights; and the 'dynamic instrument doctrine' put forward by the Committee against All Forms of Discrimination against Women. These principles all derive from the interpretive consensus that interpretations that are devoid of actual and timely effect for human rights protections do not cohere with good faith interpretations of the wording and context of human rights treaties in the light of their object and purpose.

[12] Id. at footnote 11, at paras. 1 to 3.

As [Richard Gardiner] explains, the principle of effectiveness has two aspects. **The first aspect directs the interpreter to give meaning to each and every treaty provision so that each term has effect rather than no effect.** This aspect comes from the good faith requirement of Article 31. **The second aspect involves taking either a teleological or an evolutive approach to interpretation (or a combination of both).** In human rights treaty interpretation we find that interpreters have developed all aspects of effectiveness, often in tandem with each other, in conversation with the [Vienna Convention on the Law of Treaties].

The first aspect of effectiveness in the human rights treaty context means that the interpretation of provisions should have real effect in terms of the concrete and actual lives of individuals who are the recognized right-holders of human rights treaty law. That is, human rights interpretations must have 'practical effect'….effectiveness instructs the interpreters to attribute 'sincerity' to the original intentions of the drafters (i.e. the context) in realizing human rights of individuals. The distinction between formalistic protection versus effective protection offers an animating reason to choose between conflicting understandings of the wording of the text.

The second version of effectiveness offers a deeper account of what really makes a human rights provision effective. In this teleological variant, it goes beyond an analysis of whether an existing protection is formal or effective as a matter of fact and asks the question of under what kinds of circumstances human rights treaty provisions can be trumped by other concerns or legitimately infringed. This version of effectiveness hinges on the question of whether treaty texts in principle should be interpreted in favour of the particular individual right (and expanding correlating duties) or in favour of the public interest that would restrict or not recognize a right or its correlating duty. A common trend amongst human rights interpreting bodies has been to adopt an understanding that favours the first option and thereby to assert that human rights treaties come with the presumption that protection of human rights has priority to sovereign rights….

**The effectiveness principle articulated by the Inter-American Court of Human Rights comes closest to the full-blown teleological interpretation that sceptics have in mind. This Court holds that interpretation in favour of the individual (which it calls the principle of *pro-person)* must be followed, even if this comes at the expense of the wording or context.** [citing *19 Tradesmen v Colombia* (5 July 2004) Inter-American Court of Human Rights Series C No 109, [173]. *State Obligations Concerning Change of Name, Gender Identity and Rights Derived From a Relationship Between Same Sex Couples (Interpretation and Scope of Articles 1(1), 3, 7, 11 (2), 13, 17, 18 and 24, in Relation to Article 1 of the Inter American Convention on Human Rights* (Advisory Opinion) (24 Nov 2017) OC-24/17 Inter American Court of Human Rights Series A No 24, [189]….

….If effectiveness animates the measure of text, context, and object and purpose in human rights treaty interpretation, it remains to ask how does effectiveness interact with the additional requirement in Article 31(3) [of the Vienna Convention on the Law of Treaties], requiring parties to take into account 'any relevant rules of international law applicable in the relations between the parties?' Human rights treaty interpreters

> do this, locating human rights treaty interpretation as part of – and not in isolation from – general international law and other related treaties and instruments. This is in line with a more general duty to attempt to reach coherence amongst different bodies of international law, even though this may not be possible in each concrete instance.
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> Human rights interpreters interact with Article 31(3) in two directions. First, Article 31(3) may lead to the identification of an accumulation of interpretations. Second, Article 31(3) may lead to the identification of an actual or potential conflict with other bodies of international law. Resolution of such conflicts have taken different paths amongst different human rights interpreters with varying consequences for the relationship between general international law, its sub-branches, and human rights treaty interpretation….In the case of accumulation, other international law obligations or treaties regulating similar subject matters (as well as general international law) serve as a means of reaching an overlapping interpretation of human rights treaty provisions by cumulatively confirming a particular interpretation. The international comparative method employed by the Inter-American Court of Human Rights, the African Commission on Human and Peoples' Rights, the African Court of Human and Peoples' Rights, the European Court of Human Rights, and UN Human Rights Treaty Bodies explicitly point in this direction. The regional human rights commissions and courts and quasi judicial UN treaty bodies cite and interpret other international treaty law obligations – such as the UN Charter, UN human rights treaties,, statutes of international criminal courts, provisions of international humanitarian law, or International Labour Organization (ILO) Conventions – to confirm commonalities of meaning amongst human rights treaties or other international law. **In the case of the Inter-American Court of Human Rights, in particular, this extends to identification of some of its treaty provisions as *jus cogens* norms.** This practice of paying attention to the general and regional human rights treaty context enables interpreters to solidify the meanings of their human rights treaty provisions in light of the broader context of international law. It also has the potential of having effects external to the interpretation of a human rights treaty, in particular when, human rights interpreters also engage in the interpretation of general international law to confirm overlapping content."[13]

7. As will be seen in the subsequent sections of this Expert Opinion, the simultaneous applicability of intersectional climate change treaty law and international human rights treaty law makes it important not just to specify the *scope* of State obligations *stricto sensu* as the respective Governments of Chile and Colombia have requested of this Honorable Court, but more importantly to provide due differentiation and appropriate context according to actual human rights deprivations

[13] Başak Çalı, *Specialized Rules of Treaty Interpretation: Human Rights,* Chapter 21, pp. 504-522, at pp. 512-514, and pp. 516-518, in DUNCAN B. HOLLIS (ED.), THE OXFORD GUIDE TO TREATIES (Oxford University Press, 2nd Edition, 2020). Emphasis and italics added.

as they are very differently experienced within a range of constituencies, demographics, or communities within any State. Addressing the "State obligations derived from the duties of prevention and the guarantee of human rights in relation to the climate emergency" requested in Part A of the Questions for this Honorable Court, for example, cannot be done in isolation without also investigating the lived experiences and empirically-validated circumstances faced rights holders (under both climate change law and international human rights law), including their respective multiple vulnerabilities (or susceptibilities to climate change-related disasters or facing multiple challenges in adapting or mitigating human rights risks arising from or in relation to climate change challenges), owing to differences in endowments, capacities, age, disability, economic status or capability, sex, ethnicity, religion, language, nationality, geography, or any other identifying features of vulnerability. The 3,068 page report of the 2022 Working Group II Contribution to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change defines vulnerability as the "propensity or predisposition to be adversely affected and encompasses a variety of concepts and elements, including sensitivity or susceptibility to harm and lack of capacity to cope and adapt".[14] The same Report describes human and ecosystem vulnerability to climate change from related risks that all implicate civil, political, economic, social, cultural, developmental, labor, and environmental rights:

> "Vulnerability of ecosystems and people to climate change differs substantially among and within regions (*very high confidence*) by patterns of intersecting socioeconomic development, unsustainable ocean and land use, inequity, historical and ongoing patterns of inequity such as colonialism and governance (*high confidence*). Approximately 3.3 to 3.6 billion people live in contexts that are highly vulnerable to climate change (*high confidence*). A high proportion of species is vulnerable to climate change (*high confidence*). Human and ecosystem vulnerability are interdependent (*high confidence).* Current unsustainable development patterns are increasing exposure of ecosystems and people to climate hazards (*high confidence*)."[15]

[14] The 2022 Working Group II Contribution to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change, at p. 5, at https://report.ipcc.ch/ar6/wg2/IPCC_AR6_WGII_FullReport.pdf (last accessed 1 November 2023).

[15] Id. at footnote 14, at p. 12.

8. The same Report goes on to illustrate how climate vulnerabilities can widen or deepen existing human rights vulnerabilities, and vice-versa:

8.1. For small island developing states (SIDS) experiencing losses in marine ecosystem services, "climate change impacts exacerbate existing inequalities already experienced by some communities, including Indigenous Peoples, Pacific Island countries and territories and marginalized peoples, such as migrants and women in fisheries and mariculture. These inequities increase the risk to their fundamental human rights, by disrupting livelihoods and food security, while leading to loss of social, economic, and cultural rights. These maladaptive outcomes can be avoided by securing tenure and access rights to resources and territories for all people depending on the ocean, and by supporting decision-making processes that are just, participatory and equitable."[16]

8.2. "Furthermore, interactions between climate impacts and existing inequalities can threaten the human rights of already-marginalized peoples by disrupting livelihoods and food security, which further erodes people's social, economic and cultural rights."[17]

8.3. "Marginalised people, like small-scale aquaculture farmers in lower-income and lower-middle-income countries, are often overlooked and are not represented at a governance level. Therefore, policy, economic, knowledge and other support must ensure representation with traditional and other stakeholder ecological knowledge at national, regional and local levels to

[16] Id. at footnote 14, at p. 469.

[17] Id. at footnote 14, at p. 485.

facilitate climate change adaptation and safeguard human rights for vulnerable and poor groups."[18]

8.4. "Inclusive and sustainable adaptation can address the causes of systemic vulnerability…This points to the fundamental requirements of adaptation action in line with the Universal Declaration of Human Rights."[19]

8.5. "The assessed literature shows that conditions and phenomena that characterize systemic vulnerability (hazard independent vulnerability), such as high levels of poverty and gender inequality, limited access to basic infrastructure services or state fragility are highly relevant for understanding societal impacts of climatic hazards and future risks of climate change…These factors and context conditions also influence individual vulnerability at household or community level. Access to basic services, such as water and sanitation, are linked to human rights and if not granted increase the likelihood that people disproportionately suffer from climate-induced hazards, due to their pre-existing lack of access to such services…".[20]

8.6. "In terms of international law, the human rights obligations of states have been subject to multiple recommendations relating to climate change by United Nations treaty bodies in the reporting period. More broadly, rights-based approaches rely on the normative framework of human rights, requiring adaptation to be non-discriminatory, participatory, transparent and accountable in both formal (e.g. legal and regulatory) and informal (e.g. social or cultural norms) settings and at international, national and sub-national scales."[21]

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[18] Id. at footnote 14, at p. 782.

[19] Id. at footnote 14, at p. 973.

[20] Id. at footnote 14, at p. 1194.

[21] Id. at footnote 14, at p. 1229.

8.7. "Climate change is affecting very aspect of our society and economy; thus, it is pertinent to understand the interactions between social justice and climate-change impacts, in particular, focusing on how vulnerability to various impacts is created, maintained and distributed across geographic, social, demographic and economic dimensions. For instance, environmental and health consequences of climate change, which disproportionately affect low-income countries and poor people in high-income countries, profoundly affect human rights and social justice. Furthermore, great concern is expressed about the plight of the poor, disadvantaged and vulnerable populations when it comes to climate, but not in other policy domains."[22]

9. The intersectionality of climate change law and international human rights law is thus not just a matter of interrelated language in the texts of treaties, but also in the felt and lived impacts of climate change on the experiences of exacerbating human rights deprivations of diverse communities, groups, and populations around the world as climate change worsens for the planet.

### B. This Honorable Court's Judicial Function, particularly on States' *Pacta Sunt Servanda* Obligations for Climate Change Treaties as well as International Human Rights Treaties

10. Ensuring *pacta sunt servanda* with treaty provisions in climate change law that themselves mandate ***the simultaneous and equally-weighted applicability of climate change law with international human rights law*** --- and within the parameters of the specific queries posed by the Republic of Chile and the Republic of Colombia --- therefore, will be a matter of first impression for this Honorable Court. It will be the first opportunity for this Honorable Court to further amplify its well-elaborated pronouncement on the nexus of environmental protection and human rights

[22] Id. at foonote 14, at p. 1531.

recognized in the American Convention on Human Rights, and the corresponding obligations of States therein, that this Honorable Court extensively discussed in its *Advisory Opinion OC-23/17 (The Environment and Human Rights):*

> "47. This Court has recognized the existence of an undeniable relationship between the protection of the environment and the realization of other human rights, in that environmental degradation and the adverse effects of climate change affect the real enjoyment of human rights. In addition, the preamble to the Additional Protocol to the American Convention on Human Rights in the Area of Economic, Social and Cultural Rights (hereinafter 'Protocol of San Salvador') emphasizes the close relationship between the exercise of economic, social and cultural rights --- which include the right to a healthy environment --- and of civil and political rights, and indicates that the different categories of rights constitute an indivisible whole based on the recognition of the dignity of the human being. They therefore require permanent promotion and protection in order to ensure their full applicability; **moreover, the violation of some rights in order to ensure the exercise of others can never be justified**.…
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> 55. Owing to the close connection between environmental protection, sustainable development, and human rights…currently (i) numerous human rights protection systems recognize the right to a healthy environment as a right in itself, particularly the Inter-American human rights system, while it is evident that (ii) numerous other human rights are vulnerable to environmental degradation, all of which results in a series of environmental obligations for States to comply with their duty to respect and to ensure those rights. **Specifically, another consequence of the interdependence and indivisibility of human rights and environmental protection is that, when determining these State obligations, the Court may avail itself of the principles, rights and obligations of international environmental law,** which, as part of the international *corpus juris* make a decisive contribution to establishing the cope of the obligations under the American Convention in this regard…
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> 56. Under the inter-American human rights system, the right to a healthy environment is established expressly in Article 11 of the Protocol of San Salvador:
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> > 1. Everyone shall have the right to live in a healthy environment and to have access to basic public services.
> > 2. The States Parties shall promote the protection, preservation, and improvement of the environment.
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> 57. It should also be considered that this right is included among the economic, social and cultural rights protected by Article 26 of the American Convention, because this norm protects the rights derived from the economic, social, educational, scientific and cultural provisions of the OAS Charter, the American Declaration of the Rights and Duties of Man (to the extent that the latter 'contains and defines the essential human rights referred to in the Charter') and those resulting from an interpretation of the

Convention that accords with the criteria established in its Article 29. The Court reiterates the interdependence and indivisibility of the civil and political rights, and the economic, social and cultural rights, because they should be understood integrally and comprehensively as human rights, with no order of precedence, that are enforceable in all cases before the competent authorities.

58. The Court underscores that the right to a healthy environment is recognized explicitly in the domestic laws of several States of the region, as well as in some provisions of the international *corpus juris,* in addition to the aforementioned Protocol of San Salvador, such as the American Declaration on the Rights of Indigenous Peoples, the African Charter on Human and Peoples' Rights, the ASEAN Human Rights Declaration, and the Arab Charter on Human Rights.

59. **The human right to a healthy environment has been understood as a right that has both individual and also collective connotations**. In its collective dimension, the right to a healthy environment constitutes a universal value that is owed to both present and future generations. That said, the right to a healthy environment also has an individual dimension insofar as its violation may have a direct and an indirect impact on the individual owing to its connectivity to other rights, such as the rights to health, personal integrity, and life. Environmental degradation may cause irreparable harm to human beings; **thus, a healthy environment is a fundamental right for the existence of humankind.**

60. The Working Group on the Protocol of San Salvador indicated that the right to a healthy environment, as established in this instrument, involved the following five State obligations: (a) guaranteeing everyone, without any discrimination, a healthy environment in which to live; (b) guaranteeing everyone, without any discrimination, basic public services; (c) promoting environmental protection; (d) promoting environmental conservation, and (e) promoting improvement of the environment. It also established that the exercise of the right to a healthy environment must be governed by the criteria of availability, accessibility, sustainability, acceptability and adaptability, as in the case of other economic, social and cultural rights. In order to examine the State reports under the Protocol of San Salvador, in 2014, the OAS General Assembly adopted specific progress indicators to evaluate the status of the environment based on: (a) atmospheric conditions; (b) quality and sufficiency of water sources; (c) air quality; (d) soil quality; (e) biodiversity; (f) production of pollutant waste and its management; (g) energy resources, and (h) status of forestry resources…

62. The Court considers it important to stress that, as an autonomous right, the right to a healthy environment, unlike other rights, protects the components of the environment, such as forests, rivers and seas, as legal interests in themselves, even in the absence of the certainty or evidence of a risk to individuals. This means that it protects nature and the environment, not only because of the benefits they provide to humanity or the effects that their degradation may have on other human rights, such as health, life or personal integrity, but because of their importance to the other living organisms with which we share the planet that also merit protection in their own right. In this regard, the Court notes a tendency, not only in court judgments, but also in Constitutions, to recognize legal personality and, consequently, rights to nature.

63. Thus, the right to a healthy environment as an autonomous right differs from the environmental content that arises from the protection of other rights, such as the right to life or the right to personal integrity.

64. That said and as previously mentioned, in addition to the right to a healthy environment, damage to the environment may affect all human rights, in the sense that the full enjoyment of all human rights depends on a suitable environment. Nevertheless, some human rights are more susceptible than others to certain types of environmental. **The rights especially linked to the environment have been classified into two groups: (i) rights whose enjoyment is particularly vulnerable to environmental degradation, also identified as substantive rights (for example, the rights to life, personal integrity, health or property), and (ii) rights whose exercise supports better environmental policymaking, also identified as procedural rights (such as the rights to freedom of expression and association, to information, to participation in decision-making, and to an effective remedy)…**

66. **The Court considers that the rights that are particularly vulnerable to environmental impact include the rights to life, personal integrity, private life, health, water, food, housing, participation in cultural life, property, and the right not to be forcibly displaced….other rights are also vulnerable and their violation may affect the rights to life, liberty and security of the individual, and infringe on the obligation of all persons to conduct themselves fraternally, such as the right to peace,** because displacements caused by environmental deterioration frequently unleash violent conflicts between the displaced population and the population settled on the territory to which it is displaced…

67. **The Court also bears in mind that the effects on these rights may be felt with greater intensity by certain groups in vulnerable situations**. It has been recognized that environmental damage 'will be experienced with greater force in the sectors of the population that are already in a vulnerable situation'; hence, based on 'international human rights law, States are legally obliged to confront these vulnerabilities based on the principle of equality and non-discrimination. Various human rights bodies have recognized that indigenous peoples, children, people living in extreme poverty, minorities, and people with disabilities, among others, are groups that are especially vulnerable to environmental damage, and have also recognized the differentiated impact that it has on women. In addition, the groups that are especially vulnerable to environmental degradation include communities that, essentially, depend economically or for their survival on environmental resources from the marine environment, forested areas and river basins, or run a special risk of being affected owing to their geographical location, such as coastal and small island communities. In many cases, the special vulnerability of these groups has led to their relocation or internal displacement."[23]

[23] *Advisory Opinion OC-23/17 of November 15, 2017 Requested by the Republic of Colombia, The Environment and Human Rights (State Obligations in Relation to the Environment in the Context of the Protection and Guarantee of the Rights to Life and to Personal Integrity: Interpretation and Scope of Articles 4(1) and 5(1) in relation to Articles 1(1) and 2 of the American Convention on Human Rights),*

8. In the same Advisory Opinion, this Honorable Court specifically enumerated various State duties to ensure the rights to life and to personal integrity, in the context of environmental protection, namely:

8.1. **The Obligation of Prevention**, which includes measures such as the duty to regulate, the duty to supervise and monitor, the duty to require and approve environmental impact assessments, the duty to prepare a contingency plan, and the duty to mitigate if environmental damage occurs;[24]

8.2. **The Precautionary Principle,** which "refers to the measures that must be taken in cases where there is no scientific certainty about the impact that an activity could have on the environment…the Rio Declaration establishes that 'in order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.'…the Court understands that States must act in keeping with the precautionary principle in order to protect the rights to life and to personal integrity in cases where there are plausible indications that an activity could result in severe and irreversible damage to the environment, even in the absence of scientific certainty. Consequently, States must act with due caution to

Inter-American Court of Human Rights, 15 November 2017, full text at https://www.corteidh.or.cr/docs/opiniones/seriea_23_ing.pdf (last accessed 1 October 2023). Emphasis added.

[24] Id. at footnote 14, at pp. 51-68.

prevent possible damage…even in the absence of scientific certainty, they must take 'effective' measures to prevent severe or irreversible damage";[25]

8.3. **The Obligation of Cooperation,** which includes as part of its contemplated measures the duty to notify, the duty to consult and negotiate with potentially affected States, the duties to exchange information;[26] and

8.4. **Procedural obligations to ensure the rights to life and to personal integrity in the context of environmental protection,** which include duties of States on ensuring access to information, public participation, and access to justice (especially in cases of transboundary harm).[27]

9. The simultaneous application of climate change law and international human rights law considers not just a conceptual or intersectional nexus between both regimes heavily-driven by international treaties (and also without prejudice to customary international law norms in climate change law and international human rights law, respectively, as well as generally accepted principles of law as further sources of climate change law and international human rights law), *but also the actual direct integration of climate change law and international human rights law*. This Honorable Court is itself credited with having opened this path of integration of climate change law and international human rights law, beginning with its landmark recognition of the right to a healthy environment in *Advisory Opinion OC-23/17,* as well as the renowned application of this right to the Court's landmark 2020 Judgment on

[25] Id. at footnote 14, at paras. 175 and 180.

[26] Id. at footnote 14, at pp. 71-80.

[27] Id. at footnote 14, at pp. 81-90.

the Merits, Reparations, and Costs in the *Case of the Indigenous Communities of the Lhaka Honhat (Our Land) Association v. Argentina*:

> "202. This Court has already stated that the right to a healthy environment 'must be considered one of the rights…protected by Article 26 of the American Convention', given the obligation of the State to ensure 'integral development for their peoples' as revealed by Articles 30, 31, 33 and 34 of the Charter.
>
> 203. The Court has already referred to the content and scope of this right based on various relevant norms in its *Advisory Opinion OC-23/17* and therefore refers back to that opinion. On that occasion, it stated that the right to a healthy environment 'constitutes a universal value'; it 'is a fundamental right for the existence of humankind', and that 'as an autonomous right…it protects the components of the environment, such as forests, rivers and seas, as legal interests in themselves, even in the absence of the certainty or evidence of a risk to individuals. This means that nature must be protected, not only because of its benefits or effects for humanity, 'but because of its importance for the other living organisms with which we share the planet.' This evidently does not mean that other human rights will not be violated as a result of damage to the environment….
>
> 207. Regarding the right to a healthy environment, for the purposes of this case it should be pointed out States not only have the obligation to respect this, but also the obligation established in Article 1(1) of the Convention to ensure it, and **one of the ways of complying with this is by preventing violations.** This obligation extends to the 'private sphere' in order to avoid 'third parties violating the protected rights' and 'encompasses all those legal, political, administrative and cultural measures that promote the safeguard of human rights and that ensure that eventual violations of those rights are examined and dealt with as wrongful acts'. In this regard, the Court has indicated that, at times, **the States have the obligation to establish adequate mechanisms to monitor and supervise certain activities in order to ensure human rights, protecting them from actions of public entities and also private individuals.** The obligation to prevent is an obligation 'of means or conduct and non-compliance is not proved by the mere fact that a right has been violated'. Since the foregoing is applicable to all the rights included in the American Convention, it is useful to establish that it also refers to the rights to adequate food, to water, and to take part in cultural life.
>
> 208. Nevertheless, specifically with regard to the environment, it should be stressed that the principle of prevention of environmental harm forms part of customary international law and entails the State obligation to implement the necessary measures *ex ante* damage is caused to the environment, taking into account that, owing to its particularities, after the damage has occurred, it will frequently not be possible to restore the previous situation. Based on the duty of prevention, the Court has pointed out that 'States are bound to use all the means at their disposal to avoid activities under its jurisdiction causing significant harm to the environment.' This obligation must be

> fulfilled in keeping with the standard of due diligence, which must be appropriate and proportionate to the level of risk of environmental harm. Even though it is not possible to include a detailed list of all the measures that States could take to comply with this obligation, the following are some measures that must be taken in relation to activities that could potentially cause harm: (i) regulate; (ii) supervise and monitor; (iii) require and approve environmental impact assessments; (iv) establish contingency plans, and (v) mitigate, when environmental damage has occurred.
>
> 209. **The Court has also taken into account that several rights may be affected as a result of environmental problems, and that this 'may be felt with greater intensity by certain groups in vulnerable situations'**; these include indigenous peoples and 'communities that, essentially, depend economically or for their survival on environmental resources…[such as] from the marine environment, forested areas and river basins.' **Hence, 'pursuant to human rights law, States are legally obliged to confront these vulnerabilities based on the principle of equality and non-discrimination.'**."[28]

10. Precisely because this Honorable Court has not just recognized an intersectional nexus between climate change law and international human rights law, **but actually validated the direct integration of these two regimes, it is well within the judicial function of this Honorable Court to ensure that the principle of effectiveness applies to *both* climate change law and international human rights law**. At most, climate change law and international human rights law are already deemed integrated under the inter-American system, and at the very least, intersectionally recognized and linked through the preambular provisions of the UN Framework Convention on Climate Change and the 2015 Paris Agreement. Both the intersectionality and direct integration of the climate change law regime and the international human rights law regime has specific implications for the performance of treaty obligations and customary norm obligations by all States. The simultaneous application and operation of climate change law and international human rights treaty obligations poses a serious challenge to States on how to consistently ensure *pacta sunt servanda* for all of these treaty obligations.

[28] *Case of the Indigenous Communities of the Lhaka Honhat (Our Land) Association v. Argentina,* Judgment on Merits, Reparations and Costs, Inter-American Court of Human Rights, 6 February 2020, full text at https://www.corteidh.or.cr/docs/casos/articulos/seriec_400_ing.pdf (last accessed 1 October 2023). Emphasis added.

### C. The Differentiated Application of the Principle of Effectiveness in this Honorable Court's Integrated Interpretation of Climate Change Law and International Human Rights

11. Notwithstanding the substantive integration of climate change law and international human rights law under this Honorable Court's jurisprudence, however, in practical terms this Honorable Court cannot uniformly or homogeneously apply the principle of effectiveness to both treaty regimes of climate change law and international human rights law, expecting identical outcomes or automatically similar effects. This Honorable Court is indeed called upon to apply the principle of effectiveness to both climate change law and international human rights law, but the application of the principle of effectiveness has to differentiate between the ultimate objectives of each of these treaty regimes. As International Court of Justice President Joan Donoghue observed, "the starting point for examining the effectiveness of any institution must be the identification of the goals against which effectiveness is measured."[29]

12. In the first place, **the ultimate objective of climate change treaties** such as the UN Framework Convention on Climate Change (UNFCCC) and the Paris Agreement is to enable global cooperation that achieves the stabilization of greenhouse gas emissions at a level that prevents dangerous anthropogenic interference with the climate system --- **at this time, net zero greenhouse gas emissions comprise that urgently needed level**:

12.1. Article 2 of the UNFCCC states that "the ultimate objective of this Convention and any related legal instruments that the Conference of the Parties may adopt is to achieve, in accordance with the relevant provisions of the Convention, **stabilization**

[29] Joan E. Donoghue, *The Effectiveness of the International Court of Justice,* 108 ASIL Proceedings (2014), pp. 114-118, at p. 116.

**of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system.** Such a level should be achieved within a time frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner."[30]

12.2. Article 2 of the Paris Agreement emphasizes that "in enhancing the implementation of the [UN Framework Convention on Climate Change], **including its objective**…[this Paris Agreement] aims to strengthen the global response to the threat of climate change, in the context of sustainable development and efforts to eradicate poverty, including by: (a) Holding the increase in the global average temperature to well below 2 degree Celsius above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5 degree Celsius above pre-industrial levels, recognizing that this would significantly reduce the risks and impacts of climate change…"[31]

13. In contrast, **the ultimate objective of international human rights treaties** --- especially those concluded in the Charter of the United Nations era --- in laying down binding legal obligations for States to respect, protect, and fulfil human rights --- **is to affirm the dignity and worth of the human person**.[32] As explained by Professor Paolo Carozza, "human dignity and human rights are

[30] UN Framework Convention on Climate Change, Article 2, at https://unfccc.int/resource/docs/convkp/conveng.pdf (last accessed 1 October 2023). Emphasis added.

[31] Paris Agreement, 2015, at Article 2(1)(a), at https://unfccc.int/sites/default/files/english_paris_agreement.pdf (last accessed 1 October 2023).

[32] Charter of the United Nations Preamble ("We the Peoples of the United Nations, determined to save succeeding generations from the scourge of war…to reaffirm faith in fundamental human rights, in the dignity and worth of the human person, in the equal rights of men and women and of nations large and small....to establish conditions under which justice and respect for the obligations arising from treaties and other sources of international law can be maintained, and to promote social progress and better standards of life in larger freedom…", at https://www.un.org/en/about-us/un-charter/full-text (last accessed 1 October 2023).

not lived as abstract concepts. They have tangible meaning and weight in the context and crucible of concrete human experience --- history, freedom, reason, and community….the idea of human dignity serves as the single most widely recognized and invoked basis for grounding the idea of human rights generally, and simultaneously as an exceptionally widespread tool in judicial discourse about the content and scope of specific rights."[33]

14. Applying the principle of effectiveness (*ut res magis valeat quam pereat*) appropriately to the more intersectional, if not deliberately integrated, climate change law and international human rights law in the inter-American system, therefore, requires this Honorable Court to avoid any interpretation of the treaties of *both* climate change law and international human rights law "in a manner that would render the language in the [legal instrument or treaty] redundant, void, or ineffective….a tribunal will interpret ambiguous, vague, or apparently conflicting provisions of a legal instrument in a manner that best sustains the validity and enforceability of the instrument."[34] The late Judge Antônio Augusto Cançado Trindade of the International Court of Justice (and former President of this Honorable Court) also affirmed the applicability of the principle of effectiveness to this Honorable Court's interpretation of human rights treaties:

> "15. By virtue of the principle *ut res magis valeat quam pereat,* which corresponds to the so-called *effet utile* (sometimes called principle of effectiveness), widely supported by case-law, the States Parties to human rights treaties ought to secure to the conventional provisions the proper effects at the level of their respective domestic legal orders. Such principle applies not only in relation to the substantive norms of human rights treaties (that is, those which provide for the protected rights), but also in relation to the procedural norms, in particular, those relating to the right of individual petition and to the acceptance of the contentious jurisdiction of the international judicial organ of protection. Such conventional norms, essential to the efficacy of the system of international protection, **ought to be interpreted and applied in such a way as to**

[33] Paolo G. Carozza, *Human Dignity and Judicial Interpretation of Human Rights: A Reply,* 19 European Journal of International Law 5 (November 2008), pp. 931-944, at https://academic.oup.com/ejil/article/19/5/931/505548 (last accessed 1 October 2023).

[34] AARON X. FELLMETH AND MAURICE HORWITZ, GUIDE TO LATIN IN INTERNATIONAL LAW (Oxford University Press, 2009), at p. 107.

**render their safeguards truly practical and effective, bearing in mind the special character of the human rights treaties and their collective implementation**."[35]

15. Applying the principle of effectiveness to achieve the *differentiated objectives* of both the treaties of climate change law and international human rights law also means, necessarily, that this Honorable Court has to avoid engaging in 'proportionality' analysis or 'balancing' that readily trades off the effectiveness of climate change treaties (e.g. getting to net zero greenhouse gas emissions) for the effectiveness of international human rights treaties (e.g. ensuring the protection of the dignity and worth of the human person), and vice-versa.

16. For example, there are practically an infinite multitude of scientific, operational, or practical measures that can enable a State to reach net zero greenhouse gas emissions (e.g. such as completely eliminating any fossil fuels use within its territory without any transition plan), but these measures cannot be automatically and simplistically imposed to allegedly vindicate the right to a clean, healthy, and safe environment, if they also result in trading off the effectiveness of international human rights treaties for the most vulnerable persons (e.g. persons in extreme poverty, rural women, indigenous peoples, disabled persons, children and youth, among others) who cannot afford or readily obtain access to feasible alternatives to fossil fuel use, and thus be forced to bear harms and deprivations to the enjoyment of the full spectrum of affected human rights (e.g. the right to life; the right to enjoy rights without discrimination on grounds of economic status, for example; the right to an adequate standard of living; the right to housing and the right to property; the right not to be deprived of means of subsistence; the right to development, among others).[36] If some notion of 'balancing' or some kind

[35] *Case of Benjamin et al. v. Trinidad and Tobago,* Inter-American Court of Human Rights, Judgment on Preliminary Objections, 1 September 2001, Separate Opinion of Judge A.A. Cançado Trindade, at https://www.corteidh.or.cr/docs/casos/articulos/seriec_81_ing.pdf (last accessed 1 October 2023). Emphasis added.

[36] *See* American Convention on Human Rights, Articles 1, 4, 21, 26; International Covenant on Economic, Social and Cultural Rights, Articles 1(2), 2(1), 10, 11, among others; United Nations Human Rights Council Resolution A/HRC/54/L.27 on the Right to Development, which transmitted the Draft International Covenant on the Right to Development to the General Assembly for its consideration, negotiation, and subsequent adoption, at

of 'proportionality analysis' is resorted to here simply to achieve maximal effectiveness for one group of treaties (e.g. climate change law), at the expense of diluting or altogether eliminating the effectiveness of another group of treaties (e.g. international human rights law), this Honorable Court would fail to discharge its adjudicative mandate to ensure the principle of effectiveness for *all* human rights. Engaging in this mode of 'trade-off' or balancing reasoning *in the abstract* in these advisory proceedings is particularly sensitive, since it risks glossing over the contexts of specific cases and particulars of the lived experiences of actual persons, *in a manner that ultimately diminishes the force of the full spectrum of human rights that such persons enjoy*. Professor Francisco Urbina rightly argued that human rights cannot depend on the tenuous and elliptical reasoning that results from engaging in balancing or proportionality exercises:

> "Some defenders of proportionality argue that the pre-eminence of rights is itself a function of an underlying balancing…the limits of rights are the product of an implied balancing….Balancing is therefore considered 'unavoidable', and the question is only if it 'takes place in a hidden way' or openly….
>
> But this is not what rights are about. The particular normative force that defines rights, and that links them with considerations of justice and desert, is different from that of the unstable pre-emince that a principle or interest has over another under the balancing model. Rights reasoning is *categorical,* qualitative rather than quantitative. Whether we explain rights as trumps, or as side-constraints, or in the form of lexical priority…the result is the same: **rights are claims that need to be satisfied, regardless of certain types of opposing considerations**. The right has pre-eminence over these considerations. It trumps them (under the rights-as-trumps model); or it signals that those considerations cannot be satisfied by measures that affect the right (and thus establish side-constraints to the satisfaction of certain goals); or it requires that the interest or value or claim protected by the right be satisfied first, and only then other considerations can be addressed. For our purposes what is noteworthy in all these different ways of accounting for the structure of rights is that **they all operate categorically**. The question is whether a particular interest or claim belongs to the category of interests or claims that are protected by a right, and whether the opposing considerations belong to the category of considerations that the right trumps, or that can only be satisfied respecting the side-constraint that the right consists in, or that can only be satisfied once the right has been satisfied.

https://www.ohchr.org/en/news/2023/10/human-rights-council-adopts-five-resolutions-submits-general-assembly-draft (last accessed 1 October 2023).

**This kind of ordering, where one type of consideration has this pre-eminence over another, cannot be justified by reference to balancing, because balancing does not capture the qualitative dimension that is crucial for a mode of practical reasoning that works categorically, as rights reasoning does.** Balancing cannot establish that a category of considerations has pre-eminence over another category, because the method of balancing…is not one that singles out or uncovers the quality of things (determining to which category they belong) and their moral significance, but the quantity of things: what principle has been interfered more with, what interest has been more affected, what need is more stringent, etc. From a quantitative ordering one cannot produce a qualitative ordering…because balancing is not concerned with questions regarding categories of considerations that deserve some form of pre-eminence over other categories of considerations --- **rights cannot be grounded on an implied balancing test…**

…**the fact that proportionality and balancing filter out morally relevant considerations counts against them**. Even if proportionality were not applied to cases involving absolute rights such as the right not to be subject to torture, it will be applied to cases regarding other rights. If those rights possess a special force, a kind of pre-eminence, then proportionality will filter out that special force or pre-eminence. …

I have argued that proportionality, at least under a widespread understanding of it, cannot capture the normative force of rights. It is not a form of rights reasoning, and, therefore, when it is applied, rights are moved out of the picture. This is paradoxical, since it seems that rights talk, and especially human rights talk, is more pervasive than ever. But legal rights can be understood in all sorts of different ways. They are given concrete meaning by the generally accepted doctrinal methods used for deciding cases involving them. It could well be that much in human rights cases does not respond to the kind of reasons that we call 'rights' in moral parlance. Now, my argument is not about the proper use of the word 'right'. One can call something a 'right', but treat it as a reason of a different type. What I want to call attention to is the moving out of the picture of a distinctive and important type of reason --- one associated with requirements of justice and attributed a special normative force --- often called 'right'. Because these are important considerations, sound moral and legal analysis should be sensitive to them, and it is a deficiency for a legal method to ignore considerations of this type when they are at stake. **If such considerations of justice are involved in human rights cases, then a legal method for addressing those cases needs to be sensitive to those considerations. It is a matter of the utmost seriousness if the most widespread understanding of the most widely used test for addressing human rights cases fails to meet this requirement.**

The maximization account of proportionality fails….It is open to the incommensurability objection, because it attempts to commensurate incommensurable rights or principles, and because it attempts to strike this comparison along variables that are themselves incommensurable (intensity and extension of interests; or degree of satisfaction of principles and reliability of premises regarding their satisfaction, etc.). Furthermore, there is no reason for applying the method proposed by the theories of the maximization account of proportionality to

> human rights cases. Defenders of proportionality have not provided such a reason, and they cannot do so because the method filters out considerations that are morally relevant in the cases to which proportionality is applied. **The different objections show that human rights cases are more complex than the maximization account of proportionality supposes. They require distinguishing different kinds of interests and public goods, and all these from rights, and establishing relations of priority that cannot be reduced to or grounded on a single quantitative comparison.**"[37]

17. Professor Francisco Urbina's critique of proportionality and balancing is especially apropos in the present case, when the breadth and tenor of the queries posed by the Republic of Colombia and the Republic of Chile appear to seek this Honorable Court's specification of actual *measures* "to minimize the impact of the damage due to the climate emergency in light of the obligations established in the American Convention" (Part IV.A.2 of their Joint Request), "to facilitate the work of environmental human rights defenders" (Part IV.F.1 of their Joint Request), and "to ensure that attacks and threats against environmental defenders in the context of the climate emergency do not go unpunished" (Part IV.F.5 of their Joint Request). These are questions that are fundamentally *reparative* in nature, inviting this Honorable Court to declare specific measures in this advisory opinion, without yet adjudicating a *specific* breach creating harm to a *specific* class of plaintiffs. Given the *intersectionality (if not outright integration)* of climate change law and international human rights law in the inter-American system and the *differentiated objectives* of each of these respective treaty regimes, this Honorable Court should not be expected to produce a homogenized list of measures to minimize the impact of damage due to the climate emergency or measures to facilitate the work of environmental human rights defenders. There is a real risk that any such *a priori* designation of measures would be the product of 'proportionality analysis' or 'balancing', and thus shade over the special normative force of all human rights --- civil, political, economic, social, cultural, environmental, and developmental.

[37] FRANCISCO J. URBINA, A CRITIQUE OF PROPORTIONALITY AND BALANCING (Cambridge University Press, 2017), at p. 105 and 107, 108-109, 115, 120-121. Emphasis added.

18. There is also a counterpart risk that having this Honorable Court itself provide the requested list of *measures a priori* through these advisory proceedings, could deprive the Court of the significant present or future assistance that could be provided by Legislatures that themselves generate the detailed positive laws (as well as administrative rules and regulations that implement such legislative statutes or parliamentary decrees), that contain the kind of needed legislative, administrative, or regulatory granularity required in devising governmental and non-governmental measures that are needed to respect, protect, and fulfil human rights. Professor Francisco Urbina emphasizes the benefits of possible assistance to human rights adjudication stemming from such legislation:

> "Legislation has great potential to aid human rights adjudication. It should be conceived as an asset for the protection and promotion of human rights *in courts*. Of course, assets can become liabilities, but it makes a difference whether one evaluates legislation that frustrates human rights as pathological or as the normal case. In arguing that legislation aids human rights adjudication by providing valuable legal direction, I recall that the problems of legally unaided adjudication are also present in human rights adjudication. Human rights adjudication can be greatly served by legislation that provides legal guidance for the resolution of human rights…
>
> It is tempting to think that the epistemic benefit provided by legal learning is owed more to the common law traditions of thought and years of legal thinking and decision-making than to legislative activity. And yet, the legislature can be a receptacle of legal learning --- of knowledge of legal categories and their application. There is much legal expertise resident in the legislature, in the form of the expertise of its members, staff, legal advisors, and other actors that support the work of law-making…Furthermore, the legislature is empowered to call on legal experts from different fields, including judges, lawyers, legal academics, and public officials, and to use their knowledge in crafting law. Codification in civil law jurisdictions illustrates how the legislature can draw on traditions of positive law. No civil code is drafted without regard for history. Even so extreme an example as the Chilean Civil Code (the work of the genius of essentially one man, Andres Bello, in the nineteenth century) draws heavily on Roman law, German law, medieval Spanish law, colonial law, and French civil law, among other sources. Codification was a matter of selection, emendation, and reformulation of an already existing body of legal categories gathered from existing legislation, case law, and doctrine.
>
> As compared with the common law, which draws primarily on the information made available to the court by counsel, **legislation takes a more abstract and general perspective.** It does not address one conflict or the claims of one person, but rather attempts to assess the claims of all those involved, as well as to take into consideration larger schemes of social coordination that have been put in place to respect other

worthy claims. It assumes a more architectonic point of view, legislating for the whole of a community and its members instead of deciding a particular case involving particular parties. Assessing the interests and claims of all those potentially affected by a measure is a difficult task, without doubt. Courts can try to assess all relevant claims and bear in mind the schemes of coordination and specific convergence that attempt to realise them, particularly in cases where the government is a party. In the human rights context, after all, the issue is often presented as involving a contest between the human right of one party and the 'public interest' defended by the government. The label 'public interest' is liable to obscure what often are the diverse claims of other persons, their interests and rights, as well as the requirement of creating the diverse conditions necessary for all the members of the community to flourish. Addressing this complexity is difficult. It should come as no surprise that the judicial exercise often fails to capture all the relevant interests or to assess al the different moral requirements at stake. When it comes to addressing diverse interests and claims, the legislature has specific strengths. Its larger and more diverse composition, its more direct relationship with people affected by its decisions, its ability to gather information through hearings and written evidence, and its professional staff devoted to conducting research, all provide it with a capacity to perceive and process the different interests and claims involved and to understand complex schemes of social coordination. Furthermore, there are countless cases in which resolving the issue requires assessment of possible or likely consequences of a given measure so as to evaluate the way in which that measure will affect interests, claims, and schemes of coordination. Here, legislatures also have an advantage, in that they have the required institutional capacity to assess empirical evidence and to understand likely consequences. All this is as expected: legislatures are designed to adopt the general, architectonic, view of the whole community required for deliberating aptly about norms of the generality characteristic of legislation. Courts are designed to address concrete cases involving the claims of specific parties (typically two) appearing before the court.

**This is particularly important for the protection of human rights**…to speak properly of a right --- or, less controversially, to speak of something being actually required of someone in virtue of another's right --- one must determine the just relation between persons. But because relations between persons are generally not to be understood one at a time, no one set of relationships may be contemplated without holding in view the full range of other relationships contemplated by other rights. If this is so, establishing the relationships that give shape to rights will be a task most naturally charged to an institution designed to hold in view *all* the relevant interests and claims of a community's members. The legislature is designed to have this architectonic view. The judicial process, on the other hand, is designed to focus on the claims made by the parties in a given case or line of cases. These are distinct ways of addressing moral and political questions, and wise inter-institutional collaboration will benefit from the strengths of each….

**…All this illustrates the potential for legislation to serve as an epistemic guide to courts in overcoming the obstacles associated with the problem of complexity in human rights adjudication.** It can assess the relevant information, and it can express it by enacting clear and systematic directives that can reflect the

complex array of relevant considerations. When the legislature does this, it can greatly aid in solving the problem of complexity."[38]

19. Professor Diane Desierto has thus long argued in favor of States themselves internalizing their respective international human rights obligations, when setting and implementing States' Nationally Determined Contributions (NDCs) pursuant to the 2015 Paris Agreement:

> "Now that many States have submitted their nationally determined contributions (NDCs) to the public registry established under the 2015 Paris Agreement, are States respecting and promoting all of their human rights obligations in setting forth both their climate ambition targets as well as the pathways to reaching these targets under the NDCs? In this post, I focus on the NDC submissions of the largest emitters (the United States, China, and the European Union member states taken together) and note the conspicuous absence of spaces for human rights evaluation, monitoring, and compliance in setting the NDCs and deciding on measures that will be taken to implement the NDCs. This is problematic, because the Paris Agreement itself requires States to respect and promote their human rights obligations in undertaking climate actions….
>
> There is only place where the Paris Agreement contains the phrase 'human rights', and that is in including respect for, and promotion of, human rights as part of the objects and purposes of this treaty in the eleventh paragraph of the Preamble:
>
> > "Acknowledging that climate change is a common concern of humankind, **Parties should, when taking action to address climate change, respect, promote and consider their respective obligations on human rights,** the *right to health, the rights of indigenous peoples, local communities, migrants, children, persons with disabilities and people in vulnerable situations and the right to development, as well as gender equality, empowerment of women and intergenerational equity;"* (Italics and emphasis added.)
>
> The language used is deliberate, imperative, specific, and comprehensive in covering all of human rights law. The duties of State Parties in taking climate change actions or responses require them to *respect* (e.g. themselves refrain from or avoid any violation of human rights), *promote* (e.g. advancing awareness of and educating all on human rights, consistent with the right and responsibility of all to promote and protect universally recognized human rights and fundamental freedoms), and *consider* (e.g. to think carefully about before making a decision) their respective human rights obligations, as well as certain specifically enumerated rights above (e.g. right to health, indigenous peoples' rights, rights of vulnerable persons, the right to development,

[38] Francisco J. Urbina, *How Legislation Aids Human Rights Adjudication,* Chapter 6, pp. 153-180, at pp. 171-175 in GREGOIRE WEBBER, PAUL YOWELL, RICHARD EKINS, MARIS KÖPCKE, BRADLEY W. MILLER, AND FRANCISCO J. URBINA (EDS.), LEGISLATED RIGHTS: SECURING HUMAN RIGHTS THROUGH LEGISLATION (Cambridge University Press, 2018). Emphasis added.

etc.). The fact that this was placed in the Preamble of the Paris Agreement only emphasizes further that these duties form part of the objects and purposes of the treaty, and should be used as part of the interpretation of the Paris Agreement. This is infinitely a more direct treaty device for integrating human rights into the formulation and assessment of any State Party's climate action, rather than previous attempts by the UN Special Rapporteur on Human Rights and Environment that focused on drawing an interpretive nexus between human rights obligations and environmental duties of States….

Various provisions of the Paris Agreement that require States Parties to take action should thus ensure respect for, promotion of, and consideration of all human rights obligations and the above specifically enumerated rights. The recognition of the right to development in this enumeration is particularly significant, given that its precise content remains defined under Article 1(1) of the 1986 Declaration on the Right to Development (e.g. "The right to development is an inalienable human right by virtue of which every human person and all peoples are entitled to participate in, contribute to, and enjoy economic, social, cultural and political development, *in which all human rights and fundamental freedoms can be fully realized*.") and its legally binding instrument remains pending (e.g. Article 4(1) of the Draft Convention on the Right to Development refers to: "Every human person and all peoples have the inalienable right to development by virtue of which they are entitled to participate in, contribute to and enjoy economic, social, cultural, civil and political development *that is consistent with and based on all other human rights and fundamental freedoms.*"). In either version of the right to development, the desired outcome is development that either enables and fully realizes all human rights (the 1986 version), or development that is itself consistent with and based on all human rights (the pending Draft Convention version).

By intentionally subjecting all climate actions and responses to climate action to the threshold of respecting, promoting, and considering the most comprehensive scope of human rights, **it is not an overreach to state that climate actions themselves must ultimately be consistent or in conformity with all human rights.** Whether it is the Paris Agreement Article 5(1) obligation stating that Parties should take action to conserve and enhance, as appropriate, sinks and reservoirs of greenhouse gases as referred to in Article 4, paragraph 1 (d), of the Convention, including forests"; or the Article 6(2) obligation that Parties "shall apply robust accounting to ensure, inter alia, the avoidance of double counting, consistent with guidance adopted by the Conference of the Parties serving as the meeting of the Parties to this Agreement"; or, as I examine in this post, the Article 4(2) obligation of each Party to "prepare, communicate and maintain successive nationally determined contributions that it intends to achieve. Parties shall pursue domestic mitigation measures, with the aim of achieving the objectives of such contributions" and Article 4(13) duty of each Party to "account for their nationally determined contributions. In accounting for anthropogenic emissions and removals corresponding to their nationally determined contributions, Parties shall promote environmental integrity, transparency, accuracy, completeness, comparability and consistency, and ensure the avoidance of double counting, in accordance with guidance adopted by the Conference of the Parties serving as the meeting of the Parties to this Agreement" —- all of these

mandatory obligations under the Paris Agreement have to be read and interpreted consistently with the object and purpose of the Paris treaty to respect, promote, and consider all human rights when taking action to address climate change.

The set of decisions taken by the Conference of Parties to implement the Paris Agreement did not refer to any need for human rights consistency or assessment of human rights impacts from climate actions and responses. Neither does it appear that human rights consistency, impacts, and compliance, bear upon the various methods of States Parties' accounting of emissions and mitigation actions, as seen from the UNFCCC's Reference Manual for the Enhanced Transparency Framework under the Paris Agreement. United Nations Secretary-General Antonio Guteres recently noted the strengthened NDCs of the United States, Britain, and the European Union, but that there are still missing new NDCs from China, Saudi Arabia, India, and around 70 countries.

However, an examination of latest and existing submissions by the largest emitters (the United States, China, and of the European Union) indicates that only the European Union is explicitly "integrating the dimensions of human rights and gender equality by States in all their national plans and strategies under the EU Energy Union Governance Regulation" (p. 12 of the EU NDC). The United States' own updated NDC, submitted recently when it rejoined the Paris Agreement, prescribes the following sectoral pathways to achieve their nationally determined contributions to greenhouse gas emissions:

> "Electricity: The United States has set a goal to reach **100 percent carbon pollution-free electricity by 2035**, which could be achieved through multiple cost-effective technology and investment pathways, each resulting in meaningful emissions reductions in this decade. Eliminating greenhouse gases from the electricity sector will also reduce air and water pollution, improving public health while supporting good jobs building modern infrastructure. Policies that contribute to emissions reduction pathways consistent with the NDC include incentives and standards to reduce pollution. The federal government will work with state, local, and tribal governments to support the rapid deployment of carbon pollution-free electricity generating resources, transmission, and energy storage and leverage the carbon pollution-free energy potential of power plants retrofitted with carbon capture and existing nuclear, **while ensuring those facilities meet robust and rigorous standards for worker, public, environmental safety and environmental justice**. The United States will also support research, development, demonstration, commercialization, and deployment of software and hardware to support a carbon pollution-free, resilient, reliable, and affordable electricity system.
>
> Transportation: The largest sources of emissions from transportation are light-duty vehicles like SUVs, pickup trucks, and cars, followed by heavy trucks, aircraft, rail, and ships. These transportation modes are highly dependent on fossil fuels, with more than 90 percent of transportation energy use coming

from petroleum. Transportation provides essential access to services and economic opportunities, but has historically contributed to racial and environmental inequities in the United States. There are many opportunities to reduce greenhouse gas emissions from transportation while also saving money for households, improving environmental quality and health in communities, and providing more choices for moving people and goods. Policies that can contribute to emissions reduction pathways consistent with the NDC include: tailpipe emissions and efficiency standards; incentives for zero emission personal vehicles; funding for charging infrastructure to support multi-unit dwellings, public charging, and long-distance travel; and research, development, demonstration, and deployment efforts to support advances in very low carbon new-generation renewable fuels for applications like aviation, and other cutting-edge transportation technologies across modes. Investment in a wider array of transportation infrastructure will also make more choices available to travelers, including transit, rail, biking, and pedestrian improvements to reduce the need for vehicle miles traveled. While the emissions pathways analyzed focus on domestic emissions reduction, the United States is also exploring ways to support decarbonization of international maritime and aviation energy use through domestic action as well as through the International Maritime Organization (IMO) and International Civil Aviation Organization (ICAO).

Buildings: Building sector emissions come from electricity use, as well as fossil fuels burned on site for heating air and water and for cooking. There are many options to avoid these emissions while reducing energy cost burden for families and improving health and resilience in communities. The emissions reduction pathways for buildings consider ongoing government support for energy efficiency and efficient electric heating and cooking in buildings via funding for retrofit programs, wider use of heat pumps and induction stoves, and adoption of modern energy codes for new buildings. The United States will also invest in new technologies to reduce emissions associated with construction, including for high-performance electrified buildings.

Industry: Emissions in the heavy industry sector come from energy use, including onsite fuel burning as well as electricity, and direct emissions resulting from industrial processes. The United States government will support research, development, demonstration, commercialization, and deployment of very low- and zero-carbon industrial processes and products. For example, the United States will incentivize carbon capture as well as new sources of hydrogen – produced from renewable energy, nuclear energy, or waste – to power industrial facilities. In addition, the United States government will use its procurement power to support early markets for these very lowand zero-carbon industrial goods."

All of the above pledged sectoral pathways prescribe very specific transformations to American processes of production, consumption, industry, investment, technology, and energy use, which will generate their corresponding impacts on civil and political

rights as well as the enjoyment of the right to health, the right to development, and the human rights of indigenous peoples and vulnerable communities (children, women, persons with disabilities, local communities, among others). However, as promising as the US NDC is in setting a goal to reach 100% carbon pollution-free electricity by 2035, the NDC is completely silent on conducting counterpart human rights impact assessments, human rights due diligence, and human rights auditing for the intersectional effects of these definitively prescribed sectoral pathways on the multidimensional enjoyment of all human rights. China's NDC focuses mainly on creating pathways to a "low-carbon way of life", without ever discussing whether they will track their climate actions' consistency and compliance with human rights commitments (such as the International Covenant on Economic, Social and Cultural Rights, to which China is a State Party)….

The siloed approach to examining climate change as purely an issue of getting to net zero carbon emissions, as opposed to a global structural transformation that also has the possibility of provoking corresponding Schumpeterian creative destructions on how different demographics and constituencies enjoy their civil, political, economic, social, and cultural rights, suggests a deliberate deafening of climate change approaches to the literal terms of the Paris Agreement which already did set as one of its objects and purposes that climate actions should respect, promote, and consider all human rights law. The fact that the technical assessments and State-level planning now being made about carbon neutrality largely leave human rights consistency as an afterthought (or as a utilitarian object to be jettisoned at any time in the name of the goal of reaching carbon neutrality), without seriously providing for a system of monitoring, tracking, assessing, and evaluating human rights consistency and compliance for all climate actions, is troubling for those who will be rendered even more vulnerable, more displaced, jobless, or unequal as a result of systemic structural transformations in the global economy. It is hard enough for human rights constituencies to raise their voices against malignant actions of authoritarian regimes. It will be even harder when human rights constituencies of the most vulnerable around the world have to make themselves heard to State-level or international decision-makers who can uniformly prescribe – without taking into account differentiated vulnerabilities within populations – that we should use "zero emission personal vehicles", change barely human rights-compliant housing or dwelling structures to retrofit them for net zero emissions, or be "climate advocates" ourselves without having our baseline human rights respected, promoted, and considered. There is an urgent, wider, and more inclusive debate that we could all be having about how to get us all to net zero or carbon neutrality as a way of life, without ignoring how carbon neutrality is wed to deliberate choices, values, habits and preferences – *and why those, at a minimum, should be framed towards orienting all of us towards human rights consistency and full realization.*. The last thing we all need, after the authoritarian proliferation of oppressive measures in this pandemic, is for a new set of oppressive measures to be imposed to reach carbon neutrality at all costs, and in utter disregard of, and indifference to, our individual and collective civil, political, economic, social, and cultural rights. Climate actions are also about respecting, promoting, and considering all our human rights. Conditioning climate action on human rights consistency, compliance, and full realization is, *and in that process making sure that ALL*

> *voices (and not just behemoth States or organizations, but also disempowered vulnerable communities) are meaningfully consulted, heard, and considered before prescribing any climate action,* is what should get us to the elusive dream of climate justice based on human rights in this time of global "just transition"."[39]

20. As of this writing, States' NDCs still do not contain any audit or report of the human rights impacts of such commitments on diverse vulnerable groups, peoples, communities, and other demographics within their populations. Neither are States mapping or anticipating in any form of "human rights audit"[40] what the human rights impacts are of their proposed climate actions.

21. Even the most recent decision text from the UNFCCC's 28th Conference of Parties (COP 28) in December 2023 does not reflect the imperative nature of the continuing international human rights treaty obligations of States as they implement their respective climate actions, stating only that the Conference of Parties "*encourages* Parties to implement climate policy and action that is gender-responsive, *fully respects human rights,* and empowers youth and children."[41]

22. **A minimal baseline measure, therefore, that this Honorable Court can require of States in these advisory proceedings is for States to conduct their respective human rights audits of their climate action commitments (mitigation and/or adaptation and/or loss and damage), *in light of the entirety of their international human rights treaty and customary obligations,*** so as to enable this Honorable Court as well as the States concerned to proceed with a

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[39] Diane A. Desierto, "Just Transitions in Climate Change Actions: Are States Respecting, Promoting, and Considering Human Rights Obligations in Setting and Implementing NDCs?", EJIL:Talk!, 8 October 2021, at https://www.ejiltalk.org/respecting-human-rights-obligations-in-climate-change-actions-are-states-evaluating-ndcs-human-rights-impacts/ (last accessed 1 November 2023).

[40] Diane A. Desierto, *Shifting Sands in the International Economic System: 'Arbitrage' in International Economic Law and International Human Rights,* 49 Georgetown Journal of International Law 1019 (2018), at pp. 1103-1107 (discussing how a comprehensive human rights audit of any anticipated regulatory change would ensure compliance with international human rights treaty and customary human rights law obligations).

[41] United Nations Framework Convention on Climate Change Conference of Parties, *Outcome of the First Global Stocktake,* FCCC/PA/CMA/2023/L.17, 13 December 2023, para. 178, full text at https://unfccc.int/sites/default/files/resource/cma2023_L17_adv.pdf (last accessed 1 November 2023).

well-ordered discussion in these advisory proceedings as to the *scope* of State's duty of prevention and measures that any State should take to minimize the impact of the damage due to the climate emergency (Questions under Part A.1 and Part A.2), the *scope* of obligations to preserve the right to life and survival in relation to the climate emergency (Questions under Part B), the *nature and scope of obligations of States in relation to the rights of children and the new generations in light of the climate emergency* (Questions under Part C), the nature and scope of State Party's obligations to establish effective judicial remedies for human rights impacts of the climate emergency (Questions under Part D), among other queries in these proceedings. This would not require this Honorable Court to enumerate or list *in abstracto* measures that are intended to be reparative in nature or designed to implement international human rights treaties, as sought in the Questions under Parts E and F.

23. As seen from the report of the Notre Dame Reparations Lab (see **Annex A**) based on its open-access comprehensive datasets coding all the reparative measures adjudicated throughout all national, regional, and international jurisprudence for various kinds of climate change disputes, courts and tribunals everywhere around the world are already framing different reparative measures to respond to specific circumstances and felt harms.[42] Applying the principle of effectiveness to both climate change law and international human rights law *requires this necessary factual, scientific, and legal differentiation to realize the ultimate objectives of both of these treaty regimes*. Thus, while this Expert Opinion provides empirical examples of what has been adjudicated by other international, regional, and national courts and tribunals, this Honorable Court can simply refer to them as illustrative data, without serving as the definitive *legal* response to the queries posed by the Republic of Colombia and the Republic of Chile to identify measures "to minimize the impact of the damage due to the climate

[42] *See also* Diane A. Desierto, *COP25 Negotiations Fail: Can Climate Change Litigation, Adjudication and/or Arbitration Compel States to Act Faster to Implement Climate Obligations?,* 31 Environmental Law and Management 3 (2019), at https://www.lawtext.com/publication/environmental-law-and-management/contents/volume-31/issue-3 (last accessed 1 November 2023).

emergency in light of the obligations established in the American Convention" (Part IV.A.2 of their Joint Request), "to facilitate the work of environmental human rights defenders" (Part IV.F.1 of their Joint Request), and "to ensure that attacks and threats against environmental defenders in the context of the climate emergency do not go unpunished" (Part IV.F.5 of their Joint Request).

24. Admittedly, there is no shortage of other illustrative data examples and paradigms that this Honorable Court can take into account in responding to the queries about measures to mitigate the impact of damage due to the climate emergency. **Annex C** is an example of a multidisciplinary study at the University of Notre Dame co-authored by Professor Diane Desierto as Co-Principal Investigator, which operationalizes the right to water and all human rights (including sustainability) for water-intensive industries, focusing not on the prescription of specific measures but on designing the decision-making process for private actors to work with local communities and government regulators to internalize human rights and sustainability needs under international human rights law and climate change law.[43] This study has been presented at the United Nations Headquarters in Spring 2023 during the UN 2-23 Water Conference,[44] and was also featured at World Water Week 2022.[45] **Annex D** is a very brief summary of sample actionable measures[46] that States could already implement to mitigate the impact of climate change, authored by international environmental activist and civil society lawyer Antonio A. Oposa Jr.,[47] the 2019-2022 Normandy Chair for Peace on Law and Future

[43] Marc F. Muller, Diane Desierto, Ellis Adams, Georges Enderle, Elizabeth Dolan, Ray Offenheiser, Leonardo Bertassello, Nathaniel Hanna, Shambhavi Shekokar, Sean O'Neill, and Tom Purekal, *Water and Human Rights Unlocked: A Guide for Water-Intensive Industries,* November 2022, Pulte Institute for Global Development, University of Notre Dame, at https://keough.nd.edu/publications/water-and-human-rights-unlocked-a-guide-for-water-intensive-industries/ (last accessed 1 October 2023), attached as **Annex C** to this Expert Opinion.

[44] See https://www.unwater.org/news/un-2023-water-conference (last accessed 1 October 2023).

[45] Mollie Sager, "Water and human rights unlocked", World Water Week, 24 August 2022, at https://www.worldwaterweek.org/news/water-and-human-rights-unlocked (last accessed 1 October 2023).

[46] Antonio A. Oposa Jr., *Stories of the Walk to the World we Want,* attached as **Annex D** to this Expert Opinion.

[47] See https://normandychairforpeace.org/member/antonio-a-oposa-jr/ (last accessed 1 October 2023).

Generations and recipient of the Center for International Environmental Law Award and the Ramon Magsaysay Award. These sample measures reflect the same rationale and approach that the International Union on the Conservation of Nature (IUCN) advocates States to use when formulating Nature-Based Solutions for Climate Change Mitigation.[48] The University of Notre Dame's Environmental Change Initiative also hosts multiple research projects on the assessment and evaluation of damage due to climate emergencies.[49]

25. This is not to say, however, that this Honorable Court cannot respond to the queries posed in the Joint Request for an Advisory Opinion submitted by the Republic of Colombia and the Republic of Chile. Mindful of the principle of effectiveness in ensuring *pacta sunt servanda* performance of State obligations under climate change law and international human rights law, especially in the specialized jurisprudence of this Honorable Court, the rest of this Expert Opinion will focus on the *nature and scope of State obligations* requested in Parts A to D, while omitting to specify the precise *measures* States should take to implement these obligations. We submit that the design of specific measures to implement States' climate change law and international human rights law obligations requires that **each State precisely differentiate according to its circumstances, capacities, resources, and vulnerabilities as they collectively yield their respective idiosyncratic human rights impacts from climate actions.** As such, we submit that it is beyond the purview of this Honorable Court's judicial function in these advisory proceedings to specify such measures in abstracto and well in advance of any concrete case or contentious dispute, when the same climate actions could very well

[48] International Union on the Conservation of Nature (IUCN) and United Nations Environment Programme (UNEP), *Nature-Based Solutions for Climate Change Mitigation,* 2021, full text at https://wedocs.unep.org/xmlui/bitstream/handle/20.500.11822/37318/NBSCCM.pdf (last accessed 1 October 2023).

[49] See https://environmentalchange.nd.edu/research/ (last accessed 1 October 2023).

be tested or challenged before this Honorable Court by individuals, groups, peoples, communities, and populations that experience such human rights impacts in distinct and unique contexts.

## II. NATURE AND SCOPE OF STATE OBLIGATIONS ARISING FROM THE DUTY OF PREVENTION AND THE GUARANTEE OF HUMAN RIGHTS IN RELATION TO THE CLIMATE EMERGENCY, INCLUDING FOR VULNERABLE GROUPS (ENVIRONMENTAL DEFENDERS, WOMEN, INDIGENOUS PEOPLES, AFRO-DESCENDANT COMMUNITIES, AMONG OTHERS)

1. The duty of prevention traces its origins to the customary obligation not to allow one's territory to be used in a manner that causes transboundary harm.[50] The International Court of Justice confirmed this principle in *Certain Activities Carried Out By Nicaragua in the Border Area (Costa Rica v. Nicaragua) and Construction of a Road in Costa Rica along the San Juan River (Nicaragua v. Costa Rica)*[51]:

> "104. As the Court has had occasion to emphasize in its Judgment in the case concerning *Pulp Mills on the River Uruguay (Argentina v. Uruguay):*
>
> > 'the principle of prevention, as a customary rule, has its origins in the due diligence that is required of a State in its territory. It is 'every State's obligation not to allow knowingly its territory to be used for acts contrary to the rights of other States' [*Corfu Channel case, United Kingdom v. Albania), Merits, Judgment, I.C.J. Reports 1949,* p. 22]. A State is thus obliged to use all the means at its disposal in order to avoid activities which take place in its territory, or in any area under its jurisdiction, causing significant damage to the environment of another State.' (*Judgment, I.C.J. Reports* 2010 (I), pp. 55-56, para. 101).
>
> Furthermore, the Court concluded in that case that 'it may now be considered a requirement under general international law to undertake an environmental impact assessment where there is a risk that the proposed industrial activity may have a significant adverse impact in a transboundary context, in particular, on a shared resource' (*ibid.,* p. 83, para. 204). Although the Court's statement in the *Pulp Mills* case refers to industrial activities, the underlying principle applies to proposed activities

[50] *Trail Smelter Arbitration,* Reports of International Arbitral Awards, Vol. III, pp. 1905-1982, at p. 1965 ("…under the principles of international law, as well as of the law of the United States, no State has the right to use or permit the use of its territory in such a manner as to cause injury by fumes in or to the territory of another or the properties or persons therein, when the case is of serious consequence and the injury is established by clear and convincing evidence.").

[51] *Certain Activities Carried Out by Nicaragua in the Border Area (Costa Rica v. Nicaragua) and Construction of a Road in Costa Rica along the San Juan River (Nicaragua v. Costa Rica),* International Court of Justice, Judgment of 16 December 2015, at https://www.icj-cij.org/sites/default/files/case-related/150/150-20151216-JUD-01-00-EN.pdf (last accessed 1 November 2023).

which may have a significant adverse impact in a transboundary context. **Thus, to fulfil its obligation to exercise due diligence in preventing significant transboundary environmental harm, a State must, before embarking on an activity having the potential adversely to affect the environment of another State, ascertain if there is a risk of significant transboundary harm, which would trigger the requirement to carry out an environmental impact assessment.**

Determination of the content of the environmental impact assessment should be made in light of the specific circumstances of each case. As the Court held in the *Pulp Mills* case:

> 'it is for each State to determine in its domestic legislation or in the authorization process for the project, the specific content of the environmental impact assessment required in each case, having regard to the nature and magnitude of the proposed development and its likely adverse impact on the environment as well as to the need to exercise due diligence in conducting such an assessment' *(I.C.J. Reports 2010 (I),* p. 83, para. 205).'

If the environmental impact assessment confirms that there is a risk of significant transboundary harm, the State planning to undertake the activity is required, in conformity with its due diligence obligation, to notify and consult in good faith with the potentially affected State, where that is necessary to determine the appropriate measures to prevent or mitigate that risk…."[52] (Emphasis added.)

2. The legal threshold that defines the scope of a State's duty of prevention in relation to climate events caused by global warming, therefore, is **the risk of transboundary harm from human activities, measures, or actions over which the State exercises a certain degree of jurisdiction.[53] The nature of these risk assessments have not yet been standardized under international law** for a wide spectrum of human activities, public or private measures, or any form of climate actions, although the International Standards Organization (ISO) has published its ISO/TS 14092:2020 *Adaptation to Climate Change* (Requirements and guidance on adaptation planning for local governments and communities).[54] With no treaty prescribing a uniform method of risk assessment, States will expectedly conduct risk assessments for possible transboundary harm from human activities,

[52] Id. at footnote 50, at para. 104.

[53] *See also Legality of the Threat or Use of Nuclear Weapons,* Advisory Opinion, I.C.J. Reports 1996, at para. 29; *Pulp Mills on the River Uruguay (Argentina v. Uruguay),* I.C.J. Reports (2010), at para. 101.

[54] *See* ISO/TS 14092:2020 at https://www.iso.org/standard/68509.html (last accessed 1 November 2023).

measures, or actions according to law applicable within their respective jurisdictions. To date, climate risk assessments face challenges as to their ultimate verifiability and reliability due to scope, the availability of data, and the different degrees of transparency across jurisdictions around the world.[55] To the extent that there is considerable variability in local, national, regional, sub-regional, or global assessments of the risk of transboundary harm, therefore, the operative scope of States' duty to prevent transboundary harm is equally imprecise to draw with clear red lines.

3. Significantly, however, the Intergovernmental Panel on Climate Change (IPCC) usefully provided a 2021 Guidance Note[56] on risk definitions as States undertake their own assessments. Risk is defined as "the potential for adverse consequences for human or ecological systems, recognizing the diversity of values and objectives associated with such systems. In the context of climate change, risks can arise from potential impacts of climate change as well as human responses to climate change. Relevant adverse consequences include those on lives, livelihoods, health and wellbeing, economic, social and cultural assets and investments, infrastructure, services (including ecosystem services), ecosystems and species."[57] The IPCC goes on to note that "in the context of climate change *impacts,* risks result from dynamic interactions between climate-related hazards with the exposure and vulnerability of the affected human or ecological system to the hazards. Hazards, exposure and vulnerability may each be subject to uncertainty in terms of magnitude and likelihood of occurrence, and each may change over time and space due to socio-economic changes and human

[55] Alberto Arribas, Ross Fairgrieve, Trevor Dhu, Juliet Bell, Rosalind Cornforth, Geoff Gooley, Chris J. Hilson, Amy Luers, Theodore G. Shepherd, Roger Street, and Nick Wood, *Climate risk assessment needs urgent improvement,* 13 Nature Communications 4326 (2022), at https://www.nature.com/articles/s41467-022-31979-w (last accessed 1 November 2023).

[56] Intergovernmental Panel on Climate Change, *The concept of risk in the IPCC Sixth Assessment report: a summary of cross-Working Group discussions: Guidance for IPCC authors,* 4 September 2020, at https://www.ipcc.ch/site/assets/uploads/2021/02/Risk-guidance-FINAL_15Feb2021.pdf (last accessed 1 November 2023).

[57] Id. at footnote 56, at p. 4.

decision-making."[58] In contrast, "in the context of climate change *responses,* risks result from the potential for such responses not achieving the intended objective(s), or from potential trade-offs with, or negative side-effects on, other societal objectives, such as the Sustainable Development Goals…Risks can arise for example from uncertainty in implementation, effectiveness or outcomes of climate policy, climate-related investments, technology development or adoption, and system transitions."[59] Thus, risks can materialize from either contexts of experienced natural or man-made climate change *impacts*, as well as from human interventions through climate change *responses.*

4. Given the wide range of risks of transboundary harm from the climate emergency and the non-standardized risk assessment methods adopted by different States, the State's duty to prevent must also be read in light of the precautionary principle, as articulated in Article 3, paragraph 3 of the UN Framework Convention on Climate Change itself (e.g. *"The Parties should take precautionary measures to anticipate, prevent, or minimize the causes of climate change and mitigate its adverse effects. Where there are threats of serious or irreversible damage, lack of full scientific certainty should not be used as a reason for postponing such measures, taking into account that policies and measures to deal with climate change should be cost-effective so as to ensure global benefits at the lowest possible cost. To achieve this, such policies and measures should take into account different socio-economic contexts, be comprehensive, cover all relevant sources, sinks, and reservoirs of greenhouse gases and adaptation, and comprise all economic sectors. Efforts to address climate change may be carried out cooperatively by interested Parties."),*[60] and is also contained in other international environmental treaties.[61] The International Court of Justice's 1997 Judgment on the Merits in *Gabcikovo-Nagymaros Project* was

[58] Id. at footnote 56, at p. 5.

[59] Id. at footnote 56, at p. 5.

[60] UN Framework Convention on Climate Change, Article 3(3), full text at https://unfccc.int/resource/docs/convkp/conveng.pdf (last accessed 1 November 2023).

[61] *See* Convention on Biological Diversity, Preamble, ninth paragraph, at https://www.cbd.int/doc/legal/cbd-en.pdf (last accessed 1 November 2023).

likewise open to the applicability of the precautionary principle when examining a State's duty to prevent transboundary harm:

> "97. Finally, Hungary argued that subsequently imposed requirements of international law in relation to the protection of the environment precluded performance of the Treaty. The previously existing obligation not to cause substantive damage to the territory of another State had, Hungary claimed, evolved into an *erga omnes* obligation of prevention of damage pursuant to the 'precautionary principle'. On this basis, Hungary argued, its termination was 'forced by the other party's refusal to suspend work on Variant C.'…
>
> 112. …the Court wishes to point out that newly developed norms of environmental law are relevant for the implementation of the Treaty and that the parties, could, by agreement, incorporate them through the application of Articles 15, 19 and 20 of the Treaty. These articles do not contain specific obligations of performance but require the parties, in carrying out their obligations to ensure that the quality of water in the Danube is not impaired and that nature is protected, to take new environmental norms into consideration when agreeing upon the means to be specified in the Joint Contractual Plan. By inserting these evolving provisions in the Treaty, the parties recognized the potential necessity to adapt the Project. Consequently, the Treaty is not static, and is open to adapt to emerging norms of international law. By means of Articles 15 and 19, new environmental norms can be incorporated in the Joint Contractual Plan.
>
> The responsibility to do this was a joint responsibility. The obligations contained in Article 15, 19 and 20 are, by definition, general and have to be transformed into specific obligations of performance through a process of consultation and negotiation. Their implementation thus requires a mutual willingness to discuss in good faith actual and potential environmental risks.
>
> It is all the more important to do this because as the Court recalled in its Advisory Opinion on the *Legality of the Threat or Use of Nuclear Weapons,* 'the environment is not an abstraction but represents the living space, the quality of life and the very health of human beings, including generations unborn' (I.C.J. Reports 1996, p. 241, para. 29…)
>
> The awareness of the vulnerability of the environment and the recognition that environmental risks have to be assessed on a continuous basis have become much stronger in the years since the Treaty's conclusion. These new concerns have enhanced the relevance of Articles 15, 19, and 20.
>
> 113. **The Court recognizes that both Parties agree on the need to take environmental concerns seriously and to take the required precautionary measures**, but they may fundamentally disagree on the consequences this has for the joint Project. In such a case, third-party involvement may be helpful and instrumental

in finding a solution, provided each of the Parties is flexible in its position."[62] (Emphasis added)

5. States implementing climate actions and achieving the objectives of the UN Framework Convention on Climate Change have always been subject to operative principles in Article 3 of this Convention, which encompasses the duty of prevention and the precautionary principle, but also rights to sustainable development:

"Article 3 Principles

In their actions to achieve the objective of the Convention and to implement its provisions, the Parties shall be guided, inter alia, by the following:

1. The Parties should protect the climate system for the benefit of present and future generations of humankind, on the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities. Accordingly, the developed country Parties should take the lead in combating climate change and the adverse effects thereof.

2. The specific needs and special circumstances of developing country Parties, especially those that are particularly vulnerable to the adverse effects of climate change, and of those Parties, especially developing country Parties, that would have to bear a disproportionate or abnormal burden under the Convention, should be given full consideration.

3. **The Parties should take precautionary measures to anticipate, prevent or minimize the causes of climate change and mitigate its adverse effects. Where there are threats of serious or irreversible damage, lack of full scientific certainty should not be used as a reason for postponing such measure**s, **taking into account that policies and measures to deal with climate change should be cost-effective so as to ensure global benefits at the lowest possible cost**. To achieve this, such policies and measures should take into account different socio-economic contexts, be comprehensive, cover all relevant sources, sinks and reservoirs of greenhouse gases and adaptation, and comprise all economic sectors. Efforts to address climate change may be carried out cooperatively by interested Parties.

4. **The Parties have a right to, and should, promote sustainable development. Policies and measures to protect the climate system against human-induced change should be <u>appropriate to the specific conditions of each Party</u> and should be integrated with national development programmes,**

[62] *Case Concerning the Gabcikovo-Nagymaros Project (Hungary v. Slovakia),* Judgment of 25 September 1997, International Court of Justice Reports 1997, at paras. 97, 112-113.

**taking into account that economic development is essential for adopting measures to address climate change**.

5. The Parties should cooperate to promote a supportive and open international economic system that would lead to sustainable economic growth and development in all Parties, particularly developing country Parties, thus enabling them better to address the problems of climate change. Measures taken to combat climate change, including unilateral ones, should not constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on international trade."[63] (Emphasis and underscoring added.)

6. This Expert Opinion respectfully submits to this Honorable Court that the "appropriate specific conditions of each Party" referred to in Article 3, paragraph 4 of the above principles in the UN Framework Convention on Climate Change must and should take into account a State's international legal obligations, most especially international human rights treaty obligations and customary human rights norms under international law. This creates the guarantee that, notwithstanding the uncertain scope of the duty to prevent transboundary harm resulting from the considerable variability when it comes to risk assessment and the precautionary principle that binds all States, that States remain obligated to ensure that policies and measures to protect the climate system against human-induced change would be "appropriate to the specific conditions of each Party".

7. **Mapping a State's international human rights treaty and customary obligations is a crucial first step that enables the State to precisely identify the specific conditions in its jurisdiction that would be impacted by policies and measures to protect the climate system against human-induced change.** Precisely because international human rights law focuses on the dignity and flourishing of the human person, it is critical not to reduce humans to totalizing or homogenizing assumptions that humans can all be subjected to identical climate protection policies and measures. International human rights law recognizes human vulnerabilities in exercising their civil and political rights, their economic, social and cultural rights, their rights to development and

[63] Id. at footnote 60, at Article 3.

sustainable development, as well as their human right to a healthy, safe, clean and sustainable environment. The manner in which these rights are realized and experienced within any State certainly differs for persons experiencing heightened vulnerabilities as a result of human rights violations, such as discrimination (on account of race, colour, sex, language, religion, political or other opinion, national or social origin, property, birth or other status);[64] being subjected to torture or other cruel, inhuman or degrading punishment[65] or enforced disappearance;[66] experiencing refugee displacement or any form of migration;[67] or in need of special protections for women,[68] children,[69] persons with disabilities,[70] among others. Those experiencing intersectional bases of discrimination,[71] in particular,

[64] International Covenant on Civil and Political Rights, Article 2(1); International Covenant on Economic, Social and Cultural Rights, Article 2(1); International Convention on the Elimination of Racial Discrimination, Article 1(1).

[65] Convention Against Torture and Other Cruel, Inhuman or Degrading Punishment, Article 1(1) (e.g. the term "torture" means any act by which severe pain or suffering, whether physical or mental, is intentionally inflicted on a person for such purposes as obtaining from him or a third person information or a confession, punishing him for an act he or a third person has committed or is suspected of having committed, or intimidating or coercing him or a third person, or for any reason based on discrimination of any kind, when such pain or suffering is inflicted by or at the instigation of or with the consent or acquiescence of a public official or other person acting in an official capacity. It does not include pain or suffering arising only from, inherent in or incidental to lawful sanctions.")

[66] International Convention for the Protection of All Persons from Enforced Disappearance, Article 2 (e.g. 'enforced disappearance' is considered to be the arrest, detention, abduction or any other form of deprivation of liberty by agents of the State or by persons or groups of persons acting with the authorization, support or acquiescence of the State, followed by a refusal to acknowledge the deprivation of liberty or by concealment of the fate or whereabouts of the disappeared person, which place such a person outside the protection of the law).

[67] 1951 Convention Relating to the Status of Refugees, Article 1 (definition of 'refugee') and its 1967 Protocol; International Convention on the Protection of the Rights of All Migrant Workers and Members of their Families, Article 2(1), (e.g. 'migrant worker' refers to a person who is to be engaged, is engaged or has been engaged in a remunerated activity in a State of which he or she is not a national).

[68] Convention on the Elimination of All Forms of Discrimination Against Women, Article 1 (e.g. "discrimination against women: shall mean any distinction, exclusion or restriction made on the basis of sex which has the effect or purpose of impairing or nullifying the recognition, enjoyment or exercise by women, irrespective of their marital status, on a basis of equality of men and women, of human rights and fundamental freedoms in the political, economic, social, cultural, civil or any other field).

[69] Convention on the Rights of the Child, Article 2(1) (non-discrimination obligation).

[70] Convention on the Rights of Persons with Disabilities, Article 2 (e.g. 'discrimination on the basis of disability' means any distinction, exclusion or restriction on the basis of disability which has the purpose or effect of impairing or nullifying the recognition, enjoyment or exercise, on an equal basis with others, of all human rights and fundamental freedoms in the political, economic, social, cultural, civil or any other field. It includes all forms of discrimination, including denial of reasonable accommodation).

[71] Ana T. Amorim-Maia, Isabelle Anguelovski, Eric Chu, and James Connolly, *Intersectional climate justice: A conceptual pathway for bridging adaptation planning, transformative action, and social equity,* 41 Urban Climate (January 2022), at https://www.sciencedirect.com/science/article/pii/S2212095521002832 (last accessed 1 November 2023); Michael Mikulewicz, Martina Angela Caretta, Farhana Sultana, and Neil J.W. Crawford, *Intersectionality and Climate Justice: A Call for*

are more than likely to experience even deeper vulnerabilities to climate change impacts and any human rights risks materializing from climate responses.[72]

8. Thus, the most basic measures that States can feasibly take to minimize the impact of damage due to the climate emergency is to: a) **internalize their international human rights obligations in all policies and measures to address climate change**; and **b) conduct an ongoing human rights audit of prospective and ongoing climate change policies, measures, and actions to ascertain the nature and extent of human rights impacts experienced by different vulnerable individuals, groups, peoples, communities, and populations.** When implementing their respective sovereign obligations to regulate, to monitor and oversee, to request and to adopt social and environmental impact assessments, to establish contingency plans, and to mitigate activities under its jurisdiction that exacerbate or could exacerbate the climate emergency, States have to take their international human rights treaty obligations and international human rights customary obligations into account,[73] to provide a more accurate risk assessment that informs its continuing duty to prevent transboundary harm, especially in the context of climate change. It is only after that more accurate risk assessment is produced that States can feasibly devise and frame climate change responses and mitigation measures, while appropriately anticipating and designing reparative

*Synergy in Climate Change Scholarship,* 32 Environmental Politics 7 (2023), pp. 1275-1286; JOHANNA BOND, GLOBAL INTERSECTIONALITY AND CONTEMPORARY HUMAN RIGHTS (Oxford University Press, 2021), at Chapter 4 (Intersectionality and Human Rights within Regional Human Rights Systems).

[72] *See* Ang Li, Mathew Toll, Rebecca Bentley, *Mapping social vulnerability indicators to understand the health impacts of climate change: a scoping review,* 7 The Lancet Planetary Health 11 (November 2023), pp. 925-937; Barbara Astle, Meghann Buyco, Ikponwosa Ero, Sheryl Reimer-Kirkham, *Global impact of climate change on persons with albinism: A human rights issue,* 9 The Journal of Climate Change and Health (January – February 2023); Liat Ayalon, Norah Keating, Karl Pillemer, Kiran Rabheru, *Climate Change and Mental Health of Older Persons: A Human Rights Imperative,* 29 The American Journal of Geriatric Psychiatry 10 (October 2021), pp. 1038-1040;

[73] *See* Sebastien Jodoin, Annalisa Savaresi, Margaretha Wewerinke-Singh, *Rights-based approaches to climate decision-making,* 52 Current Opinion in Environmental Sustainability (October 2021), pp. 45-53.

mechanisms for redress of any of the human rights impacts on existing or continuing vulnerabilities within States' populations.[74]

9. In this Honorable Court's *Advisory Opinion OC-23/17 (The Environment and Human Rights),*[75] this Honorable Court already extensively discussed the obligation of prevention and measures States must take to comply with the obligation of prevention. Our Expert Opinion respectfully submits that requiring the internalization of international human rights obligations in the proposed or actual NDCs of States, alongside the conduct of a human rights audit for all proposed or actual climate action or measure, would fully align with this Honorable Court's thorough disquisition on the obligation of prevention by **ultimately enabling greater effectiveness at risk assessment**:

> "127. The obligation to ensure the rights recognized in the American Convention entails the duty of States to prevent violations of these rights…this obligation of prevention encompasses all the diverse measures that promote the safeguard of human rights and ensure that eventual violations of these rights are taken into account and may result in sanctions as well as compensation for their negative consequences…
>
> 128. Under environmental law, the principle of prevention has meant that States have the 'responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction.' This principle was explicitly established in the Stockholm and Rio Declarations on the environment and is linked to the international obligation to exercise due diligence so as not to cause or permit damage to other States…
>
> 129. The principle of prevention of environmental damage forms part of international customary law. This protection encompasses not only the land, water and atmosphere, but also includes flora and fauna. Specifically, in relation to State obligations with regard to the sea, the United Nations Convention on the Law of the Sea establisheds that 'States have the obligation to protect and preserve the marine environment' and imposes a specific obligation 'to prevent, reduce and control pollution of the marine

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[74] *See* United Nations Basic Principles and Guidelines on the Right to a Remedy and Reparation for Victims of Gross Violations of International Human Rights Law and Serious Violations of International Humanitarian Law, at https://www.ohchr.org/en/instruments-mechanisms/instruments/basic-principles-and-guidelines-right-remedy-and-reparation#:~:text=Adequate%2C%20effective%20and%20prompt%20reparation,violations%20and%20the%20harm%20suffered. (last accessed 1 November 2023).

[75] Inter-American Court of Human Rights, *Advisory Opinion OC-23/17 of November 15, 2017, The Environment and Human Rights (State Obligations in Relation to the Environment in the Context of the Protection and Guarantee of the Rights to Life and to Personal Integrity: Interpretation and Scope of Articles 4(1) and 5(1) in Relation to Articles 1(1) and 2 of the American Convention on Human Rights),* at https://www.corteidh.or.cr/docs/opiniones/seriea_23_ing.pdf (last accessed 1 November 2023).

environment.' The Cartagena Convention that Colombia mentions in its request also establishes this obligation.

130. Bearing in mind that, frequently, it is not possible to restore the situation that existed before environmental damage occurred, **prevention should be the main policy as regards environmental protection**…

…

140. …the Court concludes that States must take measures to prevent significant harm or damage to the environment, within or outside their territory. In the Court's opinion, any harm to the environment that may involve a violation of the right to life and to personal integrity, in accordance with the meaning and scope of those rights as previously defined…must be considered significant harm. The existence of significant harm in these terms is something that must be determined in each specific case, based on the particular circumstances…

…

143. …the obligation of prevention established in environmental law is an obligation of means and not of results.

144. …certain minimum measures can be defined that States must take within their general obligation to take appropriate measures to prevent human rights violations as a result of damage to the environment.

145. The specific measures States must take include the obligations to: (i) regulate; (ii) supervise and monitor; (iii) require and approve environmental impact assessments; (iv) establish contingency plans, and (v) mitigate, when environmental damage has occurred.

…

149. Therefore, this Court considers that States, **taking into account the existing level of risk**, must regulate activities that could cause significant environmental damage in a way that reduces any threat to the rights to life and to personal integrity…

…

154. In this regard, the Inter-American Court considers that States have an obligation to supervise and monitor activities within their jurisdiction that may cause significant damage to the environment. Accordingly, States must develop and implement adequate independent monitoring and accountability mechanisms. These mechanisms must not only include preventive measures, but also appropriate measures to investigate, punish and redress possible abuse through effective policies, regulations and adjudication. The level of monitoring and oversight necessary w**ill depend on the level of risk that the activities or conduct involves…**

161. The Court has already indicated that environmental impact assessments must be made pursuant to the relevant international standards and best practice and has indicated certain conditions that environmental impact assessments must meet. Despite that the foregoing related to activities implemented in territories of indigenous communities, the Court considers that such conditions are also applicable to any environmental impact assessment; they are as follows:

*a. The assessment must be made before the activity is carried out.*

162. The environmental impact assessment must be concluded before the activity is carried out or before the permits required for its implementation have been granted. The State must ensure that no activity related to project execution is undertaken until the environmental impact assessment has been approved by the competent State authority. Making the environmental impact assessment during the initial stages of project discussion allows alternatives to the proposal to be explored and that such alternatives can be taken into account. Preferably, environmental impact assessments should be made before the project location and design have been decided in order to avoid financial losses should changes be required. When the concession, license or authorization to execute an activity has been granted without an environmental impact assessment, this should be made before the project is executed.

*b. It must be carried out by independent entities under the State's supervision*

163. The Court considers that the environmental impact assessment must be carried out by an independent entity with the relevant technical capacity, under the State's supervision. Environmental impact assessments can be carried out by the State itself or by a private entity. However, in both cases, it is the State, in the context of its monitoring and oversight duty, that must ensure that the assessment is carried out correctly. If assessments are made by private entities, the State must take steps to ensure their independence.

164. During the process for approval of an environmental impact assessment, the State must analyze whether execution of the project is compatible with its international obligations. In this regard, it must take into account the impact that the project may have on its human rights obligations. In cases involving indigenous communities, the Court has indicated that the environmental impact assessment should include an evaluation of the potential social impact of the project. The Court notes that if the environmental impact assessment does not include a social analysis, the State must make this analysis while supervising the assessment.

*c. It must include the cumulative impact.*

165. The Court has indicated that the environmental impact assessment must examine the cumulative impact of existing projects and proposed projects. In this regard, if a proposed project is linked to another project, as in the case of the construction of an access road, for example, the environmental impact assessment should take into account the impact of both the main project and the associated projects. In addition, the impact of other existing projects should be taken into account. This analysis will

allow a more accurate conclusion to be reached on whether the individual and cumulative effects of existing and future activities involve a risk of significant harm.

*d. Participation of interested parties*

166. The Court has not ruled on the participation in environmental impact assessments of interested parties when this is not related to the protection of the rights of indigenous communities. In the case of projects that may affect indigenous and tribal territories, the Court has indicated that the community should be allowed to take part in the environmental impact assessment process through consultation. The right to participate in matters that could affect the environment is dealt with, in general, in the section on procedural obligations below (paras. 226 to 232).

167. However, regarding the participation of interested parties in environmental impact assessments, the Court notes that in 1987, the United Nations Environmental Programme adopted the Goals and Principles of Environmental Impact Assessments, which established that States should permit experts and interested groups to comment on environmental impact assessments. Even though the principles are not binding, they are recommendations by an international technical body that States should take into account. The Court also notes that the domestic laws of Argentina, Belize, Brazil, Canada, Chile, Colombia, Ecuador, El Salvador, Guatemala, Peru, Dominican Republic, Trinidad and Tobago and Venezuela include provisions that establish public participation in environmental impact assessments while, in general, Bolivia, Costa Rica, Cuba, Honduras and Mexico promote public participation in decisions relating to the environment.

168. The Court considers that, in general, the participation of the interested public allows a more complete assessment of the possible impact of a project or activity and whether it will affect human rights. Thus, it is recommendable that States allow those who could be affected or, in general, any interested person, to have the opportunity to present their opinions or comments on a project or activity before it is approved, while it is being implemented, and after the environmental impact assessment has been issued.

*e. Respect for the traditions and culture of indigenous peoples*

169. In the case of projects that may affect the territory of indigenous communities, social and environmental impact assessments must respect the traditions and culture of the indigenous peoples. In this regard, the intrinsic connection between indigenous and tribal peoples and their territory must be taken into account. The connection between the territory and the natural resources that have been used traditionally and that are necessary for the physical and cultural survival of these peoples and for the development and continuity of their world view must be protected to ensure that they can continue their traditional way of life and that their cultural identity, social structure, economic system, and distinctive customs, beliefs and traditions are respected, guaranteed and protected by States.

*f. Content of environmental impact assessments*

170. The content of the environmental impact assessment will depend on the specific circumstances of each case and the level of risk of the proposed activity. Both the International Court of Justice and the International Law Commission have indicated that each State should determine in its laws the content of the environmental impact assessment required in each case. The Inter-American Court finds that States should determine and define, by law or by the project authorization process, the specific content required of an environmental impact assessment, taking into account the nature and size of the project and its potential impact on the environment.

**iv) Duty to prepare a contingency plan**

171. The United Nations Convention on the Law of the Sea establishes that States shall together prepare and promote emergency plans to deal with incidents of pollution of the marine environment. The same obligation is included in the Convention on the Law of the Non-Navigational Uses of International Watercourses. In this regard, the Court considers that the State of origin should have a contingency plan to respond to environmental emergencies or disasters that includes safety measures and procedures to minimize the consequences of such disasters. Even though the State of origin is the main entity responsible for the contingency plan, when appropriate, the plan should be implemented in cooperation with other States that are potentially affected, and also competent international organizations. (infra para. 189).

**v) Duty to mitigate if environmental damage occurs**

172. The State must mitigate significant environmental damage if it occurs. Even if the incident occurs despite all the required preventive measures having been taken, the State of origin must ensure that appropriate measures are adopted to mitigate the damage and, to this end, should rely upon the best available scientific data and technology. Such measures should be taken immediately, even if the origin of the pollution is unknown. Some of the measures that States should take are: (i) clean-up and restoration within the jurisdiction of the State of origin; (ii) containment of the geographical range of the damage to prevent it from affecting other States; (iii) collection of all necessary information about the incident and the existing risk of damage; (iv) in cases of emergency in relation to an activity that could produce significant damage to the environment of another State, the State of origin should, immediately and as rapidly as possible, notify the States that are likely to be affected by the damage (infra para. 190); (v) once notified, the affected or potentially affected States should take all possible steps to mitigate and, if possible, eliminate the consequences of the damage, and (vi) in case of emergency, any persons who could be affected should also be informed.

173. In addition, as explained below, the State of origin and the States potentially affected have the obligation to cooperate in order to take all possible measures to mitigate the effects of the damage (infra paras. 181 to 210).

**B.1.d Conclusion regarding the obligation of prevention**

> 174. In order to ensure the rights to life and integrity, States have the obligation to prevent significant environmental damage within and outside their territory, as established in paragraphs 127 to 173 of this Opinion. In order to comply with this obligation, States must: (i) regulate activities that could cause significant harm to the environment in order to reduce the risk to human rights, as indicated in paragraphs 146 to 151 of this Opinion; (ii) supervise and monitor activities under their jurisdiction that could produce significant environmental damage and, to this end, implement adequate and independent monitoring and accountability mechanisms that include measures of prevention and also of sanction and redress, as indicated in paragraphs 152 to 155 of this Opinion; (iii) require an environmental impact assessment when there is a risk of significant environmental harm, regardless of whether the activity or project will be carried out by a State or by private persons. These assessments must be made by independent entities with State oversight prior to implementation of the activity or project, include the cumulative impact, respect the traditions and culture of any indigenous peoples who could be affected, and the content of such assessments must be determined and defined by law or within the framework of the project authorization process, taking into account the nature and size of the project and its potential impact on the environment, as indicated in paragraphs 156 to 170 of this Opinion; (iv) institute a contingency plan in order to establish safety measures and procedures to minimize the possibility of major environmental accidents in keeping with paragraph 171 of this Opinion, and (v) mitigate significant environmental damage, even when it has occurred despite the State's preventive actions, using the best scientific knowledge and technology available, in accordance with paragraph 172 of this Opinion."[76] (Emphasis added.)

10. What is missing from the above elaboration by this Honorable Court on the obligation of prevention, *in the specific context of the climate emergency,* is precisely the requirement for States to internalize their international human rights obligations in their proposed NDCs, and to construct corresponding human rights audits for proposed or ongoing climate policies, measures, or actions, to further substantiate and more fully verify the risks to human rights implementation, realization, and compliance (appropriately disaggregated according to affected constituencies, especially for those with existing heightened vulnerabilities to human rights impacts, such as those already experiencing intersectional discrimination) from climate policies, measures, or actions contemplated by States.

[76] Id. at paras. 127 to 130.

11. While the authors of this Expert Opinion will not, at this point, proffer recommendations of measures in the abstract in relation to the States' obligations to prevent and their counterpart duties to protect groups already vulnerable to various forms of human rights deprivations, such as environmental defenders, women, indigenous peoples, and Afro-descendant communities facing the climate emergency (Part D of Chile and Colombia's Questions to this Honorable Court), the attention of this Honorable Court is specifically invited towards the following:

11.1. Global Witness' September 2023 Report confirmed that 177 land and environmental defenders were killed in 2022 on the frontlines of defending human rights and the environment in the face of the climate emergency, and out of this entire group, 155 were from Latin America;[77]

11.2. The United Nations Special Rapporteur on Violence Against Women and Girls' 11 July 2022 Report found that climate change "acts as a threat multiplier and its impacts are felt more severely by those already on the margins…[such as women]."[78]

11.3. The United Nations Special Rapporteur on the Rights of Indigenous Peoples' 2017 Report also noted the deepening of indigenous peoples' deficits in rights protection as a result of the climate crisis;[79] and

[77] Global Witness, *Standing Firm: The Land and Environmental Defenders on the Frontlines of the Climate Crisis,* September 2023, full text at https://www.globalwitness.org/en/campaigns/environmental-activists/standing-firm/ (last accessed 1 November 2023).

[78] United Nations Secretary-General, *Violence against women and girls, its causes and consequences,* 11 July 2022, A/177/136, full text at https://undocs.org/Home/Mobile?FinalSymbol=a%2F77%2F136&Language=E&DeviceType=Desktop&LangRequested=False (last accessed 1 November 2023).

[79] United Nations Human Rights Council, *Report of the Special Rapporteur on the rights of indigenous peoples,* 15 September 2017, A/HRC/36/46, full text at https://www.refworld.org/pdfid/59c2720c4.pdf (last accessed 1 November 2023).

11.4. The intersectional discrimination faced by people of African Descent led to even worse climate change impacts on their lived experiences of human rights deprivation, as reported in 2020 for the UN Office of the High Commissioner for Human Rights.[80]

12. These heightened risks of human rights deprivations and vulnerabilities experienced by specific groups from the climate emergency only raises the urgency for this Honorable Court to require States to both internalize their international human rights law commitments in their Nationally Determined Contributions (NDCs), as well as to devise and prepare human rights audits that disaggregate information on human rights impacts according to vulnerabilities within and across populations from actual or proposed climate change policies, measures, and actions.

## III. SCOPE OF OBLIGATIONS ON ENVIRONMENTAL INFORMATION

1. Part B of the Questions for this Honorable Court focus on information, transparency, and participation duties and obligations of States under international human rights law and specific regional treaties such as the Ezcazu Agreement and the American Convention on Human Rights. Part D of the Questions for this Honorable Court examines the nature and scope of a State Party's obligation to establish effective judicial remedies to provide adequate and timely protection and redress for the impact on human rights of the climate emergency.

2. This Expert Opinion notes that the main treaties on climate change law --- the UN Framework Convention on Climate Change, the Kyoto Protocol, and the Paris Agreement --- all contain extensive obligations on transparency with respect to the exchange of environmental

[80] Olivier Flamand-Lapointe, Christina Lumsden, Samuel Pablo, Ignasius Pareira, Pauline Seppey, *Climate Change Impacts on the Rights of People of African Descent,* 2020 report produced for the UN Office of the High Commissioner for Human Rights, full text at https://www.ohchr.org/sites/default/files/Documents/Issues/Racism/WGEAPD/Session28/written-input/capstone.pdf (last accessed 1 November 2023).

information.[81] Articles 4(1) and 5(1) of the Escazu Agreement give further substantive and obligatory content to these information transparency obligations in climate change law, especially since the Escazu Agreement Article 5(1) provides for a public right of access to environmental information according to the "principle of maximum disclosure". Applying the Escazu Agreement to the States Parties to this treaty who are also treaty parties to the UN Framework Convention on Climate Change, the Kyoto Protocol, and the Paris Agreement, there should indeed be a "principle of maximum disclosure" by States as to information and access to information on greenhouse gas emissions, air pollution, deforestation, activities and sectors that contribute to a State's emissions, and the determination of human impacts such as human mobility, migration, and forced displacement, among others. This is precisely the substantive content anticipated by this Expert Opinion when States are required to regularly undertake human rights audits that reasonably anticipate foreseeable human rights impacts[82] (such impacts also disaggregated according to vulnerabilities experienced by different groups, peoples, communities, and individuals within populations), in the course of formulating, preparing, and implementing climate change policies, measures, and actions. The authors of this Expert Opinion will be glad to assist this Honorable Court and prepare a qualitative and quantitative or mixed methods approach[83] to Human Rights Impact Assessment for Just Transition policies on climate change that States could feasibly undertake throughout various levels of governance, as well as in projects and other collaborations or regulations applicable to private sector activities.

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[81] *See among others* UN Framework Convention on Climate Change, Article 4(1)(a), (b), (g), (h), Article 4(2)(a), (b), (c), Article 4(8), Article 5, Article 6; Kyoto Protocol to the UN Framework Convention on Climate Change, Article 2(1)(b), Articles 5, 6, 7, and 8; Paris Agreement, Article 4(1) to 4(19), Article 4(8), Article 6(2), Article 13.

[82] *See for example,* United Nations Office of the High Commissioner for Human Rights, *Guiding Principles on Human Rights Impact Assessment of Economic Reforms,* at https://www.ohchr.org/sites/default/files/GuidePrinciples_EN.pdf (last accessed 1 November 2023).

[83] *See an example of such an assessment in* Annex C to this Expert Opinion.

3. Article 25 of the American Convention on Human Rights recognizes the right of everyone to "simple and prompt recourse, or any other effective recourse, to a competent court or tribunal for protection against acts that violate his fundamental rights recognized by the constitution or laws of the state concerned or by this Convention, even though such violation may have been committed by persons acting in the course of their official duties." To this end, States assume the obligations to: a) ensure that any person claiming such remedy shall have his rights determined by the competent authority provided for by the legal system of the state; b) develop the possibilities of judicial remedy; and c) ensure that competent authorities shall enforce such remedies when granted. This Honorable Court likewise applied this right in the context of environmental protection in its *Advisory Opinion OC-23/17 (The Environment and Human Rights),*[84] stressing that "in the context of environmental protection, access to justice permits the individual to ensure that environmental standards are enforced and provides a means of redressing any human rights violations that may result from failure to comply with environmental standards, and includes remedies and reparation. This also implies that access to justice guarantees the full realization of the rights to public participation and access to information through corresponding judicial mechanisms."[85] This Honorable Court further established that "States have the obligation to guarantee access to justice in relation to the State environmental protection obligations described in this Opinion. Accordingly, States must guarantee that the public have access to remedies conducted in accordance with due process of law to contest any provision, decision, act or omission of the public authorities that violates or could violate obligations under environmental law; to ensure the full realization of the other procedural rights (that is, the right of access to

[84] Id. at footnote 75.

[85] Id. at footnote 75, para. 234.

information and to public participation), and to redress any violation of their rights as a result of failure to comply with obligations under environmental law."[86]

## IV. NATURE AND SCOPE OF OBLIGATIONS TO ENSURE PROTECTION OF THE RIGHTS OF CHILDREN AND FUTURE GENERATIONS IN THE CLIMATE EMERGENCY

1. The authors of this Expert Opinion maintain their principal recommendations to this Honorable Court to ensure that States ultimately comply with the principle of effectiveness with respect to the simultaneous applicability of climate change law and international human rights law. A critical area in which some normative hierarchy may occur is on the protection of children's rights in armed conflicts and displacement situations, which have long been the subject of United Nations Security Council Resolutions[87] that take precedence, under Article 103 of the Charter of the United Nations,[88] over other international treaties that pose any conflicting obligations. UN Security Council Resolution 1261 (dated 30 August 1999) called for all States to put an end to practices of targeting of children in situations of armed conflict (including killing and maiming, sexual violence, abduction and forced displacement, recruitment and use of children in armed conflict in violation of international law, attacks on places that have a significant presence of children such as schools and hospitals).[89] UN Security Council Resolution 1314 (dated 11 August 2000) further noted that the deliberate targeting of civilian populations or other protected persons such as children may constitute a threat to

[86] Id. at footnote 75, at para. 237.

[87] *See* United Nations Security Council Resolutions 1261, 1314, and 1379 on Children and Armed Conflict.

[88] Charter of the United Nations, Article 103: "In the event of a conflict between obligations of the Members of the United Nations under the present Charter and their obligations under any other international agreement, their obligations under the present Charter shall prevail."

[89] United Nations Security Council Resolution 1261, S/RES/1261 (1999), full text at https://www.securitycouncilreport.org/atf/cf/%7B65BFCF9B-6D27-4E9C-8CD3-CF6E4FF96FF9%7D/CAC%20SRES%201261.pdf (last accessed 1 November 2023).

international peace and security.[90] UN Security Council Resolution 1379 (dated 20 November 2001) calls upon all States to provide protection and assistance to child refugees and child internally displaced peoples.[91] As the United Nations Children's Fund (UNICEF) shows in its report, *Children Displaced in a Changing Climate,*[92] children (more so displaced children) are already the most vulnerable from climate change and its interrelated human rights impacts:

> "The link between climate change and displacement is complex. Yet it is clearer than ever that the climate is shifting patterns of displacement. Although weather events, such as floods and storms, are natural phenomena and a single event cannot be directly attributed to climate change, there is widespread consensus that human-induced climate change is affecting the frequency, intensity, geographic range, duration, and timing of extreme weather events. Therefore, no weather is entirely 'natural' anymore, but rather occurs in the context of a changing climate. Large-scale disasters, which in the past occurred only occasionally, are now more frequent. In fact, with every one degree Celsius of warming, the global risks of displacement from flooding are projected to rise by approximately 50 percent.
>
> Millions of children are already being driven from their homes by weather-related events, exacerbated by climate change. Decisions to move can be forced and abrupt in the face of disaster, or the result of pre-emptive evacuation – where lives may be saved, but many children still face the challenges that come with being uprooted from their homes. In the context of slow-onset climate processes, displacement can be driven by an interplay of socio-economic, political, and climate-related factors. Decisions to move often occur in a context of constrained life choices and eroding livelihoods, where children and young people are trapped between aspirations and hopes, a duty of care to their families and communities, and pressures to leave home.
>
> Displacement – whether short-lived or protracted – can multiply climate-related risks for children and their families. In the aftermath of a disaster, children may become separated from their parents or caregivers, amplifying the risks of exploitation, child trafficking, and abuse. Displacement can disrupt access to education and healthcare, exposing children to malnutrition, disease, and inadequate immunization. Furthermore overcrowded and under-resourced evacuation sites may be located in climate-vulnerable areas…

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[90] United Nations Security Council Resolution 1314, S/RES/1314 (2000), full text at https://www.securitycouncilreport.org/atf/cf/%7B65BFCF9B-6D27-4E9C-8CD3-CF6E4FF96FF9%7D/CAC%20SRES%201314.pdf (last accessed 1 November 2023).

[91] United Nations Security Council Resolution 1379, S/RES/1379 (2001), full text at https://www.refworld.org/docid/3c4e94561c.html (last accessed 1 November 2023).

[92] United Nations Children's Fund (UNICEF), *Children Displaced in a Changing Climate,* full report at https://www.unicef.org/media/145951/file/Climate%20displacement%20report%20(English).pdf (last accessed 1 November 2023).

> …**There were 43.1 million internal displacements linked to weather-related disasters over the last six years --- the equivalent to approximately 20,000 child displacements per day. Almost all – 95% - of recorded child displacements were driven by floods and storms…."**[93]

The same UNICEF report shows that droughts and wildfires over the last five years, which demonstrate human-induced climate change, have specifically intensified in Latin America. The compounded hazards of floods, storms, droughts, and wildfires afflict the territories of States in the Organization of American States, accounting for about 2.3 Million children displaced from 2016-2021 as a result of human-induced climate change.

2. The heightened intersectional vulnerabilities to human rights impacts from climate change are thus most experienced by children. It is not coincidental that the United Nations Committee on the Rights of the Child issued its General Comment No. 26 in 2023, which discusses *Children's rights and the environment with a special focus on climate change,*[94] **which prescribes a child rights-based approach to environmental protection,** specifically amplifying the child's right to non-discrimination (Article 2 of the Convention on the Rights of the Child), the best interests of the child (Article 3 of the Convention on the Rights of the Child), the right to life, survival and development (Article 6 of the Convention on the Rights of the Child), the right to be heard on environmental issues and environmental decision-making (Article 12 of the Convention on the Rights of the Child), freedoms of expression, association and peaceful assembly (Articles 13 and 15 of the Convention on the Rights of the Child), the right of access to information (Articles 13 and 17 of the Convention on the Rights of the Child), the right to freedom from all forms of violence (Article 19 of the Convention on the Rights of the Child), the right to the highest attainable standard of health (Article 24 of the

[93] Id. at footnote 88, at pp. 4 and 12.

[94] United Nations Committee on the Right of the Child, *General Comment No. 26 (2023) on children's rights and the environment, with a special focus on climate change,* CRC/C/GC/26, 22 August 2023, full text at https://tbinternet.ohchr.org/_layouts/15/treatybodyexternal/Download.aspx?symbolno=CRC%2FC%2FGC%2F26&Lang=en (last accessed 1 November 2023).

Convention on the Rights of the Child), rights to social security, adequate standard of living, and education (Articles 26 to 29 of the Convention on the Rights of the Child), and the right to a clean, healthy and sustainable environment**:**

> "7. In a children's rights-based approach, the process of realizing children's rights is as important as the result. As rights holders, children are entitled to protection from infringements of their rights stemming from environmental harm and to be recognized and fully respected as environmental actors. In taking such an approach, particular attention is paid to the multiple barriers faced by children in disadvantaged situations in enjoying and claiming their rights.
>
> 8. A clean, healthy and sustainable environment is both a human right itself and necessary for the full enjoyment of a broad range of children's rights. Conversely, environmental degradation, including the consequences of the climate crisis, adversely affects the enjoyment of these rights, in particular for children in disadvantaged situations or children living in regions that are highly exposed to climate change. The exercise by children of their rights to freedom of expression, peaceful assembly and association, to information and education, to participate and be heard and to effective remedies can result in more rights-compliant, and therefore more ambitious and effective environmental policies. In this way, children's rights and environmental protection form a virtuous circle…
>
> …
>
> 63. Children have the right to a clean, healthy and sustainable environment. This right 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.
>
> 64. The substantive elements of this right are profoundly important for children, given that they include clean air, a safe and stable climate, healthy ecosystems and biodiversity, safe and sufficient water, healthy and sustainable food and non-toxic environments."[95]

3. Most significantly, the United Nations Committee on the Rights of the Child specifically identified the following measures as obligatory for States to "immediately take the following action"[96]:

[95] Id. at footnote 90.

[96] Id. at footnote 90, at para. 65.

(a) Improve air quality, by reducing both outdoor and household air pollution, to prevent child mortality, especially among children under 5 years of age;

(b) Ensure access to safe and sufficient water and sanitation and healthy aquatic ecosystems to prevent the spread of waterborne illnesses among children;

(c) Transform industrial agriculture and fisheries to produce healthy and sustainable food aimed at preventing malnutrition and promoting children's growth and development;

(d) **Equitably phase out the use of coal, oil and natural gas, ensure a fair and just transition of energy sources and invest in renewable energy, energy storage, and energy efficiency to address the climate crisis**;

(e) Conserve, protect and restore biodiversity;

(f) Prevent marine pollution, by banning the direct or indirect introduction of substances into the marine environment that are hazardous to children's health and marine ecosystems;

(g) Closely regulate and eliminate, as appropriate, the production, sale, use and release of toxic substances that have disproportionate adverse health effects on children, in particular those substances that are developmental neurotoxins.

4. On climate change, the UN Committee on the Rights of the Child call for specific policies, actions, and measures to realize and protect children's rights in the face of the climate emergency:

"**V. Climate change**

**A. Mitigation**

95. The Committee calls for urgent collective action by all States to mitigate greenhouse gas emissions, in line with their human rights obligations. In particular, historical and current major emitters should take the lead in mitigation efforts.

96. Insufficient progress in achieving international commitments to limit global warming exposes children to continuous and rapidly increasing harms associated with greater concentrations of greenhouse gas emissions and the resulting temperature increases. Scientists warn about tipping points, which are thresholds beyond which certain effects can no longer be avoided, posing dire and uncertain risks to children's rights. Avoiding tipping points requires urgent and ambitious action to reduce atmospheric concentrations of greenhouse gases.

97. Mitigation objectives and measures should be based on the best available science and be regularly reviewed to ensure a pathway to net zero carbon emissions at the latest by 2050 in a manner that prevents harm to children. The Intergovernmental Panel on Climate Change has illustrated that it is imperative to accelerate mitigation

efforts in the near term, to limit the temperature increase to below 1.5°C above pre-industrial levels, and that international cooperation, equity and rights-based approaches are critical to achieving ambitious climate change mitigation goals.

98. When determining the appropriateness of their mitigation measures in accordance with the Convention, and also mindful of the need to prevent and address any potential adverse effects of those measures, States should take into account the following criteria:

(a) Mitigation objectives and measures should clearly indicate how they respect, protect and fulfil children's rights under the Convention. States should transparently and explicitly focus on children's rights when preparing, communicating and updating nationally determined contributions. This obligation extends to other processes, including biennial transparency reports, international assessments and reviews and international consultations and analyses;

(b) States have an individual responsibility to mitigate climate change in order to fulfil their obligations under the Convention and international environmental law, including the commitment contained in the Paris Agreement to hold the increase in the global average temperature to well below 2°C above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5°C above pre-industrial levels by 2030. Mitigation measures should reflect each State party's fair share of the global effort to mitigate climate change, in the light of the total reductions necessary to protect against continuing and worsening violations of children's rights. Each State, and all States working together, should continuously strengthen climate commitments in line with the highest possible ambition and their common but differentiated responsibilities and respective capacities. High-income States should continue to take the lead by undertaking economy-wide absolute emission reduction targets, and all States should enhance their mitigation measures in the light of their different national circumstances in a manner that protects children's rights to the maximum possible extent;

(c) Successive mitigation measures and updated pledges should represent the efforts of States in a progression over time, keeping in mind that the time frame for preventing catastrophic climate change and harm to children's rights is shorter and requires urgent action;

(d) Short-term mitigation measures should take into consideration the fact that delaying a rapid phase out of fossil fuels will result in higher cumulative emissions and thereby greater foreseeable harm to children's rights;

(e) Mitigation measures cannot rely on removing greenhouse gases from the atmosphere in the future through unproven technologies. States should prioritize rapid and effective emissions reductions now in order to support children's full enjoyment of their rights in the shortest possible period of time and to avoid irreversible damage to nature.

99. States should discontinue subsidies to public or private actors for investments in activities and infrastructure that are inconsistent with low greenhouse gas emission pathways, as a mitigation measure to prevent further damage and risk.

100. Developed States should assist developing countries in planning and implementing mitigation measures, in order to help children in vulnerable situations. The assistance could include providing financial and technical expertise and information and other capacitybuilding measures that specifically contribute to the prevention of harm to children caused by climate change.

**B. Adaptation**

101. Since climate change-related impacts on children's rights are intensifying, a sharp and urgent increase in the design and implementation of child-sensitive, gender-responsive and disability-inclusive adaptation measures and associated resources is necessary. States should identify climate change-related vulnerabilities among children concerning the availability, quality, equity and sustainability of essential services for children, such as water and sanitation, health care, protection, nutrition and education. States should enhance the climate resilience of their legal and institutional frameworks and ensure that their national adaptation plans and existing social, environmental and budgetary policies address climate changerelated risk factors by assisting children within their jurisdiction to adapt to the unavoidable effects of climate change. Examples of such measures include strengthening child protection systems in risk-prone contexts, providing adequate access to water, sanitation and health care, as well as safe school environments, and strengthening social safety nets and protection frameworks, while giving priority to children's right to life, survival and development. Healthy ecosystems and biodiversity also play an important role in supporting resilience and disaster risk reduction.

102. In adaptation measures, including disaster risk reduction, preparedness, response and recovery measures, due weight should be given to the views of children. Children should be equipped to understand the effects of climate-related decisions on their rights and have opportunities to meaningfully and effectively participate in decision-making processes. Neither the design nor the implementation of adaptation measures should discriminate against groups of children at heightened risk, such as young children, girls, children with disabilities, children in situations of migration, Indigenous children and children in situations of poverty or armed conflict. States should take additional measures to ensure that children in vulnerable situations affected by climate change enjoy their rights, including by addressing the underlying causes of vulnerability.

103. Adaptation measures should be targeted at reducing both the short-term and the longterm impacts, such as by sustaining livelihoods, protecting schools and developing sustainable water management systems. Measures that are necessary to protect children's rights to life and health from imminent threats, such as extreme weather events, include establishing early warning systems and increasing the physical safety and resilience of infrastructure, including school, water and sanitation and health infrastructure, to reduce the risk of climate change-related hazards. States should adopt

emergency response plans, such as measures to provide inclusive early warning systems, humanitarian assistance and access to food and water and sanitation for all. In formulating adaptive measures, the relevant national and international standards, such as those contained in the Sendai Framework for Disaster Risk Reduction 2015–2030, should also be considered. Adaptation frameworks should address climate change-induced migration and displacement and include provisions for ensuring a child rights-based approach to these issues. In the event of imminent threats of climate change-related harm, such as extreme weather events, States should ensure the immediate dissemination of all information that would enable children and their caregivers and communities to take protective measures. States should strengthen awareness among children and their communities of disaster risk reduction and prevention measures.

### C. Loss and damage

104. In the Paris Agreement, the parties addressed the importance of averting, minimizing and addressing loss and damage associated with the adverse impacts of climate change. Through a human rights lens, the adverse impacts of climate change have led to significant losses and damages, in particular for those in the developing world.

105. The manner in which climate-related loss and damage affect children and their rights may be both direct and indirect. Direct impacts include instances where both sudden-onset extreme weather events, such as floods and heavy rains, and slow-onset events, such as droughts, lead to the violation of rights under the Convention. Indirect impacts may include situations in which States, communities and parents are forced to reallocate resources away from intended programmes, such as those for education and health care, towards addressing environmental crises.

106. In this respect, it is critical to acknowledge loss and damage as a third pillar of climate action, along with mitigation and adaptation. States are encouraged to take note that, from a human rights perspective, loss and damage are closely related to the right to remedy and the principle of reparations, including restitution, compensation and rehabilitation. 36 States should undertake measures, including through international cooperation, to provide financial and technical assistance for addressing loss and damage that have an impact on the enjoyment of the rights under the Convention.

### D. Business and climate change

107. States must take all necessary, appropriate and reasonable measures to protect against harms to children's rights related to climate change that are caused or perpetuated by business enterprises, while businesses have the responsibility to respect children's rights in relation to climate change. States should ensure that businesses rapidly reduce their emissions and should require businesses, including financial institutions, to conduct environmental impact assessments and children's rights due diligence procedures to ensure that they identify, prevent, mitigate and account for how they address actual and potential adverse climate change-related impacts on

children's rights, including those resulting from productionrelated and consumption-related activities and those connected to their value chains and global operations.

108. Home States have obligations to address any harm and climate change-related risks to children's rights in the context of business enterprises' extraterritorial activities and operations, provided that there is a reasonable link between the State and the conduct concerned, and should enable access to effective remedies for rights violations. This includes cooperation to ensure the compliance of business enterprises operating transnationally with applicable environmental standards aimed at protecting children's rights from climate change-related harm and the provision of international assistance and cooperation with investigations and enforcement of proceedings in other States.

109. States should incentivize sustainable investment in and use of renewable energy, energy storage and energy efficiency, in particular by State-owned or controlled enterprises and those that receive substantial support and services from State agencies. States should enforce progressive taxation schemes and adopt strict sustainability requirements for public procurement contracts. States can also encourage community control over the generation, management, transmission and distribution of energy to increase access to and the affordability of renewable technology and the provision of sustainable energy products and services, in particular at the community level.

110. States should ensure that their obligations under trade or investment agreements do not impede their ability to meet their human rights obligations and that such agreements promote rapid reductions in greenhouse gas emissions and other measures to mitigate the causes and effects of climate change, including through the facilitation of investment in renewable energy. The climate change-related impacts on children's rights connected to the implementation of the agreements should be regularly assessed, allowing for corrective measures, as appropriate.

### E. Climate finance

111. Both international climate finance providers and recipient States should ensure that climate finance mechanisms are anchored in a child rights-based approach aligned with the Convention and the Optional Protocols thereto. States should ensure that any climate finance mechanisms uphold and do not violate children's rights, increase policy coherence between children's rights obligations and other objectives, such as economic development, and strengthen the demarcation of roles of various stakeholders in climate finance, such as Governments, financial institutions, including banks, businesses and affected communities, especially children.

112. In line with the principle of common but differentiated responsibilities and respective capabilities, States' national circumstances need to be taken into account in efforts to address climate change. Developed States should cooperate with developing States in providing climate finance for climate action that upholds children's rights, in line with the international climate-related commitments that States have made. In particular, despite the link between various financing mechanisms, including on sustainable development, climate finance provided by developed States should be

> transparent, additional to other financial flows that support children's rights and properly accounted for, including by avoiding tracking challenges such as double counting.
>
> 113. Developed States need to urgently and collectively address the current climate finance gap. The current distribution of climate finance, which is overly slanted towards mitigation at the cost of adaptation and loss and damage measures, has discriminatory effects on children who reside in settings where more adaptation measures are needed and children who are confronted with the limitations of adaptation. States should bridge the global climate finance gap and ensure that measures are financed in a balanced manner with consideration given to measures on adaptation, mitigation, loss and damage and broader means of implementation, such as technical assistance and capacity-building. The determination by States of the total global climate finance required should be informed by the documented needs of communities, especially to protect children and their rights. Climate finance provided to developing countries should be in the form of grants, rather than loans, to avoid negative impacts on children's rights.
>
> 114. States should ensure and facilitate access for affected communities, especially children, to information on activities supported by climate finance, including possibilities to lodge complaints alleging violations of children's rights. States should devolve decisionmaking on climate finance to strengthen the participation of beneficiary communities, especially children, and make the approval and execution of climate finance subject to a child rights impact assessment to prevent and address the financing of measures that could lead to the violation of children's rights.
>
> 115. Children are calling for the collective action of States. According to two children consulted for the present general comment: "The Governments of each country should cooperate to reduce climate change." "They need to acknowledge us and say, 'we hear you; here is what we are going to do about this problem'."[97]

5. The authors of this Expert Opinion respectfully submit to this Honorable Court that the above discussion by the UN Committee on the Convention on the Rights of the Child also provides a starting point for the internalization of children's rights in States' actual or proposed Nationally Determined Contributions, as well as for designing human rights audits for States' proposed or actual climate change policies, measures, and actions. The Notre Dame Law School Global Human Rights Clinic, in particular, is already working in partnership with researchers at UNICEF Inocenti to focus on research on children's rights, displacement, human rights and climate change.

[97] Id. at footnote 90.

## V. THE DUTY TO COOPERATE AND THE RIGHT TO DEVELOPMENT

1. Finally, in relation to queries on the nature of inter-State cooperation obligations in Part F of the Questions to this Honorable Court, the authors of this Expert Opinion invite this Honorable Court's attention to the 2023 Draft International Covenant on the Right to Development,[98] where Prof. Dr. Diane Desierto had served as Chair-Rapporteur and/or Member of the Expert Drafting Group that provided authorship and assistance to Chair Ambassador Akram in writing and completing this pending forthcoming human rights treaty (now serving as the legally binding instrument to elaborate the 1986 UN Declaration on the Right to Development). The Draft International Covenant on the Right to Development was approved by the UN Human Rights Council in October 2023, and transmitted to the United Nations General Assembly for adoption. Article 13 of the Draft International Covenant on the Right to Development specifically elaborates on the nature of the duty to cooperate, especially for environmental crises such as climate change:

> "Article 13 Duty to cooperate
>
> 1. States Parties reaffirm and shall implement their duty to cooperate with each other through joint and separate action, in order to:
>
> (a) Solve international problems of an economic, social, cultural, political, environmental, health-related, educational, technological or humanitarian character;
>
> (b) End poverty in all its forms and dimensions, including by eradicating extreme poverty;
>
> (c) Promote higher standards of living, full and productive employment, decent work, entrepreneurship, conditions of human dignity, and economic, social, cultural, technological and environmental progress and development;
>
> (d) Promote and encourage universal respect for human rights and fundamental freedoms for all, without discrimination of any kind.
>
> 2. To this end, States Parties have primary responsibility, in accordance with the general principle of international solidarity described in the present Covenant, for the creation of international conditions favourable for the realization of the right to development for all,

[98] UN Human Rights Council, *Draft International Covenant on the Right to Development,* A/HRC/54/50, 18 July 2023, full text at https://documents-dds-ny.un.org/doc/UNDOC/GEN/G23/128/17/PDF/G2312817.pdf?OpenElement (last accessed 1 November 2023).

and shall take deliberate, concrete and targeted steps, individually and jointly, including through cooperation within international organizations and engagement with civil society:

(a) To ensure that natural and legal persons, groups and States do not impair the enjoyment of the right to development;

(b) To eliminate obstacles to the full realization of the right to development, including by reviewing international legal instruments, policies and practices;

(c) To ensure that the formulation, adoption and implementation of States Parties' international legal instruments, policies and practices are consistent with the objective of fully realizing the right to development for all;

(d) To formulate, adopt and implement appropriate international legal instruments, policies and practices aimed at the progressive enhancement and full realization of the right to development for all;

(e) To mobilize appropriate technical, technological, financial, infrastructural and other necessary resources to enable States Parties, particularly in developing and least developed countries, to fulfil their obligations under the present Covenant.

3. States Parties shall ensure that financing for development and all other forms of aid and assistance given or received by them, whether bilateral or under any institutional or other international framework, adhere to internationally recognized development cooperation effectiveness principles and are consistent with the provisions of the present Covenant.

4. States Parties recognize their duty to cooperate to create a social and international order conducive to the realization of the right to development by, inter alia:

(a) Promoting a universal, rules-based, open, non-discriminatory, equitable, transparent and inclusive multilateral trading system;

(b) Implementing the principle of special and differential treatment for developing countries, in particular least developed countries, as defined in applicable trade and investment agreements;

(c) Improving the regulation and monitoring of global financial markets and institutions, and strengthening the implementation of such regulations;

(d) Ensuring enhanced representation and voice for developing countries, including least developed countries, in decision-making in all international economic and financial institutions, in order to deliver more effective, credible, accountable and legitimate institutions;

(e) Enhancing capacity-building support to developing countries, including for least developed countries and small island developing States, to significantly increase the availability of high-quality, relevant, timely and reliable disaggregated data;

(f) Encouraging official development assistance, financial flows and foreign investment, including through but not limited to the implementation of any existing commitments, for States where the need is greatest, in particular least developed countries, African countries, small island developing States and landlocked developing countries, in accordance with their national plans and programmes;

(g) Enhancing North-South, South-South, triangular and other forms of regional and international cooperation in all spheres, particularly on access to science, technology and innovation, and also enhancing knowledge-sharing on mutually agreed terms, including through improved coordination among existing mechanisms, in particular at the United Nations level and through existing and new mechanisms for global technology facilitation;

> (h) Enhancing mitigation actions and adaptive capacity, strengthening resilience and response and reducing vulnerability to climate change and extreme weather events, addressing the economic, social and environmental impacts of climate change, taking into account the imperatives of a just transition, equity and the principles of common but differentiated responsibilities and respective capabilities in the light of national circumstances, and enhancing access to international climate finance, technology transfer and capacity-building to support mitigation and adaptation efforts in developing and least developed countries, especially those that are particularly vulnerable to the adverse effects of climate change;
>
> (i) Promoting the development, transfer, dissemination and diffusion of environmentally sound technologies to developing countries on favourable terms, including on concessional and preferential terms, as mutually agreed;
>
> (j) Eliminating illicit financial flows by combating tax evasion and corruption, reducing opportunities for tax avoidance, enhancing disclosure and transparency in financial and property transactions in both source and destination countries and strengthening the recovery and return of stolen assets;
>
> (k) Eliminating illicit arms flows by all necessary means, in accordance with international commitments;
>
> (l) Assisting developing and least developed countries in attaining long-term debt sustainability through coordinated policies aimed at fostering debt financing, debt relief and debt restructuring, as appropriate, and addressing the external debt of highly indebted poor countries to reduce debt distress;
>
> (m) Facilitating safe, orderly and regular migration and mobility of people, including through the implementation of planned and well-managed rights-based migration policies and the adoption of legislative and other measures to prevent and combat trafficking in persons, smuggling of migrants and crimes against migrants."[99]

As seen in the Commentaries to the Draft International Covenant on the Right to Development,[100] the above elaboration of State undertakings on the duty to cooperate is based on existing international instruments already adopted by States.

## VI. CONCLUSION

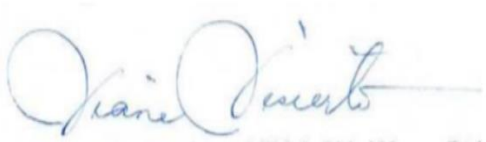
The intersectionality, if not the direct integration of, climate change law and international human rights law, poses serious problems of application, interpretation, and continuing effectiveness of international human rights obligations in their entirety to States singly and collectively facing the

[99] Id. at footnote 98.

[100] Full text of Commentaries at https://undocs.org/Home/Mobile?FinalSymbol=A%2FHRC%2F54%2F50%2FAdd.1&Language=E&DeviceType=Desktop&LangRequested=False (last accessed 1 November 2023).

climate emergency. The authors welcome the opportunity to contribute this Expert Opinion for this Honorable Court's consideration in these advisory proceedings, which emphasizes the principle of effectiveness as the ultimate legal basis for its two main recommendations: (1) States should be required to internalize international human rights law commitments into their Nationally Determined Contributions (NDCs); and (2) States should be required to routinely and transparently produce human rights audits (drawing on interdisciplinary assessments of law and jurisprudence, quantitative data, qualitative data, and mixed methods) of contemplated or actual climate policies, measures, or actions, so as to provide the fullest possible picture of human rights impacts that should be anticipated for the most vulnerable individuals, groups, and communities. Appendix A provides information to this Honorable Court of all adjudicated climate reparations from the original dataset of the Notre Dame Reparations Lab. Appendix B contains a field investigation report of perceptions of climate change reparations ineffectiveness in a small island developing State. Appendix C provides an example of a possible interdisciplinary human rights implementation framework. Appendix D contains the practical recommendations of a globally-renowned international environmental lawyer, scholar, activist, and defender. We remain at the disposal of this Honorable Court in these proceedings to furnish further detailed information in subsequent Expert Opinions.

RESPECTFULLY SUBMITTED, 18 December 2023.



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# Climate Change Reparations in International and Domestic Jurisdictions. Special attention to Latin America

**Prepared for the Inter-American Court of Human Rights for the Advisory Opinion on "Climate Emergency and Human Rights"**

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**July 27, 2023**

This brief addresses the standards of reparations adopted by domestic and international courts when dealing with reparations related with climate change. Section 1 explains the methodology used by the Lab. Sections 2 and 3 report on the findings of Notre Dame Reparations Lab on the current reparations being adjudicated by international and domestic courts of pecuniary and non-pecuniary measures. Section 4 describes the different types of declarations and acknowledgments identified in the cases. Section 5 includes quantitative findings from the analysis of the reparation measures and the decision.

## 1. METHODOLOGY

In order to document the categories of Climate change related reparation measures, the Reparations Lab gathered 144 judgments from domestic and international jurisdictions with reparations related to climate change litigation from the Sabin Center for Climate Change Law (Columbia Law School)[1], the Climate Litigation Accelerator[2], and the Interamerican Association for Environmental Defense (AIDA) Latin American and the Caribbean[3] databases. 100 judgments are from domestic tribunals from Africa, Asia, Latin America, North America, and Oceania, and 45 international judgments come from United Nations bodies, the European Union, and

[1] "Climate Change Litigation Databases - Sabin Center for Climate Change Law," Climate Change Litigation, accessed July 21, 2023, http://climatecasechart.com/.
[2] "Casebook - CLX Toolkit," accessed July 21, 2023, https://clxtoolkit.com/casebook/.
[3] "Litigio climático en América Latina y el Caribe: Lanzamiento de una plataforma regional," Interamerican Association for Environmental Defense (AIDA), February 15, 2022, https://aida-americas.org/es/blog/litigio-climatico-en-america-latina-y-el-caribe-lanzamiento-de-una-plataforma-regional.

the Inter-American Court of Human Rights. Our corpus includes 387 reparation measures.

We collected digital copies of the international and domestic courts and bodies rulings available in English or Spanish (original or officially translated) and conducted a computer-assisted text analysis. Our analysis identified segments of text indicating the climate change-related reparations in the rulings, created analytical categories to classify those text segments and revisited the categories as we identified the types of reparations. The resulting data file contains an exhaustive classification of the 382 reparation measures including the operative provisions of the court or judicial body. Although we cannot present information for all cases in the present brief, the MAXQDA file that contains the text and digital codes for all cases or an Excel File including all the Reparation measures which is an Annex to the present document.

The text defining a reparation measure included the operative provisions presented in the dispositive section of the ruling for the purpose of our analysis.

**Climate Change Reparations**

| | **Frequency[4]** | **Percentage** |
|---|---|---|
| **PECUNIARY REPARATIONS** | | |
| Economic compensation | 6 | 4.17 |
| Institution of funds | 3 | 2.08 |
| **NON-PECUNIARY REPARATIONS** | | |
| Restitution | 3 | 2.08 |
| Rehabilitation | 1 | 0.69 |
| Satisfaction: | | |
| • Publication of the Judgment | 3 | 2.08 |
| • Public Apologies | 2 | 1.39 |
| • Other publications | 3 | 2.08 |
| Ob to investigate | 1 | 0.69 |
| Non-repetition: | | |
| • Regulate, modify, interpret or annul regulations | 44 | 30.56 |
| • Non-repetition | 1 | 0.69 |
| • Public Policy | 11 | 7.64 |
| • Trainings | 2 | 1.39 |
| Mitigation Measures: | | |
| • Reduce emissions | 22 | 15.28 |

[4] Frequency of the reparations in the judgments.

| | | |
|---|---|---|
| • Adapt the domestic legal system (related to emissions) | 28 | 19.44 |
| • Reduce deforestation | 6 | 4.17 |
| Adaptation Measures: | | |
| • Adaptation plan | 3 | 2.08 |
| • Construction of climate change-related infrastructure | 2 | 1.39 |
| • Resettlement programs | 2 | 1.39 |
| Environmental Impact Assessment | 13 | 9.03 |
| Conduct Studies | 9 | 6.25 |
| Actions for nature: | | |
| • Conservation actions | 7 | 4.86 |
| • Restoration actions | 7 | 4.86 |
| • Protection actions | 8 | 5.56 |
| Action plans for human rights protection | 8 | 5.56 |
| Consultation and community participation | 7 | 4.86 |
| Material, technical or scientific resources | 3 | 2.08 |
| Protection of environmental defenders (criminal cases) | 3 | 2.08 |
| Consumer Protection | 5 | 3.47 |
| Oversight of implementation | 8 | 5.56 |
| Permissions and concessions: | | |
| • Affirm or modify permissions | 11 | 7.64 |
| • Deny or Revoke permissions | 14 | 9.72 |
| • Loss of benefits, prerogatives or status | 7 | 4.86 |
| • Acknowledgments / Declarations: | | |
| Breaches related to HR | 3 | 2.08 |
| Breaches or threats related to CC | 13 | 9.03 |
| Breaches or threats to rights of nature | 2 | 1.39 |
| Declaration or recognition of obligations | 4 | 2.78 |

The chart is divided into three main categories: Pecuniary Reparations and Non-Pecuniary Reparations, and Acknowledgements/Declarations.

## 2. PECUNIARY REPARATIONS

### 2.1. Economic Compensation

This involves providing financial compensation as a form of reparation. It is present in 4.17% of the decisions analyzed. The type of economic compensation measures decreed, usually follow the reparative logic of any judgment on other issues in which

the occurrence of damage has been recognized. For example, the International Court of Justice in the case Certain Activities Carried Out by Nicaragua in the Border Area, imposed the payment of certain amounts of money for restoration costs incurred by Costa Rica and other expenses incurred as a direct consequence of the illegal activities of Nicaragua in the Costa Rican territory that had an environmental impact and as compensation for the damage to environmental good and services[5]. Likewise, local courts have recognized the rights of claimants to monetary compensation in these cases in amounts that are appropriate[6].

### 2.2. Institution of Funds

This refers to creating or establishing funds to support reparations efforts. This category was identified in 2.08% of the analyzed decisions. In India, for example, it has been decided to allocate a certain amount of resources to a fund called the Green Tax Fund, to be used exclusively for the purposes of prevention and control of pollution, development of ecologically-friendly market at one affected area, for restoring the vegetative cover and afforestation[7]. Also, at the regional level, the IACHR Court has ordered the creation of community development funds as compensation to non-pecuniary damages. Thus, in the Xákmok Kásek case, the Court ordered the allocation of US$700,000.00 to attend to the needs of the affected indigenous community, including the construction of sanitation infrastructure[8].

## 3. NON-PECUNIARY REPARATIONS

### 3.1. Restitution

Restitution includes any reparation that aims to restore the situation as it was before the human rights abuse. In the particular case of climate-change-related litigation, the restitution of human rights is not a common order, making up 2.08% of the reparations in the analyzed judgments. Nevertheless, the IACtHR has already considered restitution of lands in cases of indigenous communities as a form of

[5] International Court of Justice, Certain Activities Carried Out by Nicaragua in the Border Area (Costa Rica v. Nicaragua) (February 2, 2018) par. 157(1)a.
[6] High Court of Justice, Armstrong DLW GmbH v. Winnington Networks Ltd., No. Case No: HC10C00532 (January 1, 2012) par. 525|562 .
[7] National Green Tribunal, Court on Its Own Motion v. State, No. APPLICATION NO. 237 (THC)/2013 (CWPIL No.15 of 2010) (February 6, 2014) par. 38(ii).
[8] IACtHR, Case of the Indigenous Community Xákmok Kásek v. Paraguay (Merits, Reparations, and Costs), No. Serie C No.214 (August 24, 2010) par. 338.

reparations in cases where climate change effects must be considered[9] or when environmental conservation is crucial for the indigenous community[10].

### 3.2. Rehabilitation

Rehabilitation implies the provision of medical and/or psychological attention to the human victims of the case. This measures are present only in 0.69% of the analyzed judgments. The Supreme Court of Chile ordered in *Las Ventanas* Industrial Park Case ordered that the victims of health conditions product of the air pollution of the *Las Ventanas* Industrial Park shall receive medical attention from the competent authorities[11].

### 3.3. Satisfaction

This category includes any public forms recognize the damage done and the dignity of the victims or the damage done to the environment. It is present in 5.55% of the analyzed sentences. It includes the publication of the judgment, public apologies and other types of publications.

#### 3.3.1. Publication of the Judgment

The publication of the judgment refers to making a court's decision or judgment publicly available and accessible to the public or to a specific group of persons. It accounts. They account 2.08% of the reparations ordered in the analyzed data. This measure was only used by the IACtHR[12] and the Constitutional Court of Ecuador[13].

#### 3.3.2. Public Apologies

This category refers to the order of public apologies due to the violation of certain human rights, the rights of nature in jurisdictions where it exists. Public apologies are present in 1.39% of the climate-change judgments analyzed. The IACtHR usually

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[9] IACtHR, Case of the Indigenous Communities of the Lhaka Honhat (Our Land) Association v. Argentina (Merits, reparations and costs), No. Serie C No. 400 (February 6, 2022) par. 202-221, and 327.

[10] IACtHR, Case of the Indigenous Community Xákmok Kásek v. Paraguay (Merits, Reparations, and Costs) par. 169 and 283.

[11] Corte Suprema de Justicia de Chile, Caso Complejo Industrial Ventanas, No. N°s 27.007-2019 y 27.054-2019 (May 28, 2019).

[12] IACtHR, Case of the Indigenous Communities of the Lhaka Honhat (Our Land) Association v. Argentina (Merits, reparations and costs) par. 348; IACtHR, Case of the Indigenous Community Xákmok Kásek v. Paraguay (Merits, Reparations, and Costs) par. 298.

[13] Corte Constitucional del Ecuador, Sentencia No. 1149-19-JP/21, No. CASO No. 1149-19-JP/20 (Juez ponente: Agustín Grijalva Jiménez November 10, 2021) par. 348 (d), (h), (j).

orders this type of reparation[14]. Furthermore, the Sucumbios Supreme Court of Justice in Ecuador has ordered public apologies for the lack of a national public policy on greenhouse effect gas emissions[15].

### 3.3.3. Other publications

Other publications make reference to the discussion of certain documents or activities that are not the judgment. They account for 2.08% of the reparations in the analyzed judgments. These include, for instance, publishing reports on the expansion of forest areas[16] or the creation of a web page that shows the activities for the compliance of the judgment[17].

## 3.4. Obligation to Investigate

This category refers to the effective investigation of human rights violations or any violation to climate-change related domestic laws. It accounts for only 0.69% of the reparations present in the judgments. So far, only the High Court of Lahore in Pakistan has ordered the investigation and sanction for the violation of public officials under criminal and disciplinary laws for not fulfilling duties on preventing deforestation.[18]

## 3.5. Non-repetition

Measures aimed at preventing the recurrence of violations. This includes regulating, modifying, interpreting, or annulling regulations, the specific order of non-repetition of the violations of a specific case, public policy, and trainings. Non-repetition measures account for 40.28% of the reparation measures present in the analyzed judgments, making them one of the most relevant reparation measures to face climate-change.

### 3.5.1. Regulate, modify, interpret, or annul regulations

This category includes the establishment and enforcement of rules, laws, or policies that aim to control or manage climate change, their modification or interpretation in

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[14] IACtHR, Case of the Indigenous Community Xákmok Kásek v. Paraguay (Merits, Reparations, and Costs) par. 297.
[15] Corte Provincial de Justicia de Sucumbíos, Juicio No: 21201202000170, No. Casillero Judicial Electrónico No: 0105168892 (July 29, 2021).
[16] High court of Lahore, Sheikh Asim Farooq v. Federation of Pakistan, No. Writ Petition No.192069 of 2018 (2018) holding 4.
[17] Corte Suprema de Justicia de Chile, Caso Complejo Industrial Ventanas par. 58(l).
[18] High court of Lahore, Sheikh Asim Farooq v. Federation of Pakistan holding 5 and 8.

scope and reach by a Court of law, and the annulment of laws or regulations. It is present in 30.56% of the judgments, more used by international courts than domestic courts. This category include the annulment of laws for the violation of constitutional laws[19], the declaration of the constitutionality of the law under a certain interpretation[20], the interpretation of a European Union Directive or Regulation, among many others[21]. 50 of the 73 orders identified to regulate, modify, interpret or annul regulations where at the European Court of Justice, a jurisdiction that actively analyzes the interpretation of communitarian regulations of emissions or climate change.

### 3.5.2. Non-repetition

This category refers to the specific orders that violations declared in the analyzed do not occur in the future. The non-repetition of the facts of the case was ordered in 0.69% of the analyzed judgments. For example, the Human Rights Committee ordered the State in *Daniel Billy and Others v Australia* "to take steps to prevent similar violations in the future".[22]

### 3.5.3. Public Policy

Public policy implies all set of principles, guidelines, laws, and actions adopted by governments and other authoritative bodies to address climate change. These measures are ordered in 7.64% of the analyzed judgments. For example, the Supreme Court of Nepal ordered the adoption of national and local plans and policies to face climate change[23], the High Court of Lahore in Pakistan ordered the creation of a plan to plant trees in forests and urban areas[24], and the Land and Environment Court of New South Whales ordered the Environment Protection Authority "to develop

[19] Federal High Court of Nigeria, Gbemre v. Shell Petroleum Development Company and others, No. Suit No: FHC/B/CS/53/05 (July 21, 2005) holding 4.
[20] Corte Constitucional de Colombia, Sentencia C-035/16, No. expediente D-10864 (M.P. Gloria Stella Ortiz Delgado February 8, 2016) first holding.
[21] European Court of Justice, Schaefer Kalk GmbH & Co. KG v. Germany, No. Case C-460/15 (January 19, 2017) par. 49; European Court of Justice, ArcelorMittal Rodange et Schifflange SA v. State of the Grand Duchy of Luxembourg, No. Case C-321/15 (March 8, 2017) par. 40.
[22] Human Rights Committee, Daniel Billy and others v Australia, No. CCPR/C/135/D/3624/2019 (September 22, 2022).
[23] Supreme Court of Nepal, Advocate Padam Bahadur Shrestha, a resident of Kathmandu District, Kathmandu Metropolitan City, Ward No 10, Baneshwor Vs. The office of the Prime Minister and Council of Ministers, Singhadurbar, Kathmandu and others, No. Decision no. 10210 (10th Day of Month of Poush of the Year BS 2075) holding 3.
[24] High court of Lahore, Sheikh Asim Farooq v. Federation of Pakistan holding 13.

environmental quality objectives, guidelines and policies to ensure environment protection from climate change"[25]

### 3.5.4. Trainings

This category refers to educational programs, workshops, seminars, courses, or any form of structured learning activities designed to increase awareness, knowledge, skills, and understanding of climate change. It is present in 1.39% of the analyzed cases. For example, the Constitutional Court of Ecuador ordered the training of public officials in charge of providing environmental licenses or permissions[26]. Likewise, the National Green Tribunal in India ordered the training of front-line staff in mock drill exercises for risk management purposes[27].

## 3.6. Mitigation measures

This category includes three types of actions or measures designed to reduce the negative impacts of certain activities, such as reducing emissions, adapting the domestic legal system, and reducing deforestation. Mitigation measures are present in 38.89% of the analyzed cases, which represent a significant amount of the climate change litigation results worldwide.

### 3.6.1. Reduce emissions

This category includes taking action and implementing measures to decrease the amount of greenhouse gas emissions released into the atmosphere. They are present in 15.28% of the climate change-related cases. This is the most common order of the Enforcement Branch of the Compliance Committee of the Kyoto Protocol, where states are ordered to make a plan in order to be in compliance with their emissions commitments according to the Kyoto Protocol. This has been ordered to states such as Ukraine[28], Lithuania[29], and Greece[30], among others. Likewise, domestic tribunals have also ordered the reduction of the emission of greenhouse effect gases. For

[25] Land and Environment Court of New South Whales, Bushfire Survivors for Climate Action Incorporated v. Environmental Protection Authority (August 26, 2021) par. 149 (1).
[26] Corte Constitucional del Ecuador, Sentencia No. 1149-19-JP/21 par. 345(h).
[27] National Green Tribunal, Rajiv Dutta v. Union of India, No. Original Application No. 216 of 2016 (M.A. No. 397 of 2017) (August 3, 2017) par.81.xi.
[28] Enforcement Branch of the Kyoto Protocol, CC-2011-2-9/Ukraine/EB (October 12, 2011) par 24 (b).
[29] Enforcement Branch of the Kyoto Protocol, CC-2011-3-8/Lithuania/EB (December 21, 2011) par. 24 (b).
[30] Enforcement Branch of the Kyoto Protocol, CC-2007-1-8/Greece/EB (April 17, 2008) par. 18(b).

example, the Colombian Supreme Court of Justice ordered the reduction of emissions of greenhouse effect gases product of the Amazon deforestation[31].

This specific order has recently been given not only to states but also to private companies. In the case of *Milieudefensie v. Shell* at The Hague District Court, The Shell Group was ordered "to be limited the aggregate annual volume of all CO2 emissions into the atmosphere"[32]. The Federal High Court of Nigeria also ordered in the case of *Gbemre v. Shell Petroleum Development Company and others* that the petroleum companies must stop "flaring of gas" in the applicant's community[33]. Furthermore, the Commission of Human Rights of the Philippines has recommended that the private sector transition to low-carbon economies[34].

### 3.6.2. Adapt the domestic legal system (related to emissions)

This category implies the process of making changes to a country's legal framework and regulatory mechanisms to effectively address and regulate greenhouse gas emissions. It is present in 19.44% of the climate change-related judgments. This includes the analysis has been done only in domestic courts, when they analyze if an specific regulations, permission, concession, law, statute or decree is according to emissions regulations that are already in place. For example, The Constitutional Court of Ecuador ordered the creation of new regulations issuance of environmental licenses for the use of water to carry out extractive activities in order to prevent violations to the rights of nature[35]. On the other hand, the Federal Court of Canada did a judicial review of the approval of the panel's environmental assessment of the Kearl Tar Sands Project and ordered the Panel "to provide a rationale for its conclusion that the proposed mitigation measures will reduce the potentially adverse effects of the Project's greenhouse gas emissions to a level of insignificance"[36].

### 3.6.3. Reduce deforestation

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[31] Corte Suprema de Justicia de Colombia, STC4360-2018, No. Radicación n. º 11001-22-03-000-2018-00319-01 (M.P. Luis Armando Tolosa Villabona April 4, 2018) first holding.
[32] The Hague District Court, Milieudefensie v. Shell, No. C/09/571932 / HA ZA 19-379 (May 26, 2021) par. 5.3.
[33] Federal High Court of Nigeria, Gbemre v. Shell Petroleum Development Company and others holding 5.
[34] Commission on Human Rights of the Philippines, National Inquiry on Climate Change Report (2022).
[35] Corte Constitucional del Ecuador, Sentencia No. 1149-19-JP/21 par. 348 (d).
[36] Federal Court of Canada, Pembina Institute for Appropriate Development and Others v. Attorney General of Canada and Imperial Oil, No. 2008 FC 302 (The Honourable Madam Justice Tremblay-Lamer March 5, 2008).

This category refers to the implementation of strategies, policies, and actions aimed at decreasing the rate at which forests are cleared or degraded in rural or urban areas. Reduce of deforestation category is exists in 4.17% of the climate change-related cases analyzed. For example, the High court of Lahorein ordered the conservation of the forests and trees in Urban Areas of Pakistan to the National Government[37]. Moreover, the Commission of Human Rights of the Philippines recommended the reduction of emissions from deforestation and forest degradation in the National Inquiry on Climate Change[38]. Likewise, The Colombian Supreme Court of Justice ordered the Colombian government to reduce deforestation in the Amazon Rain Forest to face the effects of climate change[39]. In this vein, the Ecuadorian Constitutional Court has ordered the reforestation of the *Bosque Protector Los Cedros*, which was affected by the actions of mining companies[40].

These reparations ordering the reduction or prevention of deforestation are in line with previous orders of the IACtHR, especially the ones related to the rights of indigenous communities. In the *Case of the Indigenous Community Xákmok Kásek v. Paraguay*, the Court ordered that the State shall ensure that the area where the Xákmok Kásek is settled is not deforested[41].

### 3.7 Adaptation measures

These reparation measures are focused on adapting to the challenges posed by climate change, including creating adaptation plans, constructing climate change-related infrastructure, and implementing resettlement programs. This category is present in 4.86% of the analyzed judgments.

#### 3.7.1. Adaptation plan

An adaptation plan is a strategic framework that outlines measures and actions designed to address the impacts of climate change and build resilience in a particular region, community, sector, or ecosystem. They were identified in 2.08% of the climate change-related cases. For instance, the Supreme Court of Nepal ordered the Prime Minister and the Council of Ministers to "formulate an effective implementation plan for adaptation and mitigation to protect from direct and indirect effects of climate change on the lives and livelihood of people in the absence of such a plan presently

[37] High court of Lahore, Sheikh Asim Farooq v. Federation of Pakistan holding 2.
[38] Commission on Human Rights of the Philippines, National Inquiry on Climate Change Report section 2.i.g.
[39] Corte Suprema de Justicia de Colombia, STC4360-2018 first holding.
[40] Corte Constitucional del Ecuador, Sentencia No. 1149-19-JP/21 par. 344.c.
[41] IACtHR, Case of the Indigenous Community Xákmok Kásek v. Paraguay (Merits, Reparations, and Costs) par. 291.

despite there being a direct impact of climate change in areas from Upper Himalayan Region to Lower Terai region"[42]. Likewise, the Collegiate Court of the State of Mexico ordered the Secretary of the Environment of the Government of the State of Mexico to issue a new agreement regulating the program for attention to atmospheric environmental contingencies in the Toluca Valley Metropolitan Area and in the Santiago Tianguistenco Metropolitan given the high levels of solar radiation and atmospheric pollution[43].

### 3.7.2. Construction of climate change-related infrastructure

This category refers to the planning, design, and implementation of physical structures and systems specifically aimed at addressing the impacts of climate change and enhancing resilience to its effects. They are present in 1.39% of the climate change-related judgments analyzed. For example, the National Green Tribunal of New Delhi in India ordered for the control of deforestation the creation of "a network of automated surveillance or watch towers/observation posts should be set up at strategic locations to provide regularly, on a real-time basis, data for forest fire alerts for timely interventions of fire incidences"[44]. Moreover, the New South Whales Land and Environment Court of Australia, when reviewing the construction of a wind farm, established that a wind farm is framed within the principles of ecologically sustainable development and intergenerational equity in the construction of new energy resources for climate change[45].

### 3.7.3. Resettlement programs

This type of climate change-related reparation refers to planned initiatives that involve the relocation of communities or populations from areas at high risk of climate-related hazards or environmental degradation to safer and more sustainable locations. They were identified in 1.39% of the climate change-related judgments analyzed. For instance, the Supreme Court of Chile ordered in *Las Ventanas* Industrial Park Case

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[42] Supreme Court of Nepal, Advocate Padam Bahadur Shrestha, a resident of Kathmandu District, Kathmandu Metropolitan City, Ward No 10, Baneshwor Vs. The office of the Prime Minister and Council of Ministers, Singhadurbar, Kathmandu and others holding 4.

[43] Primer Tribunal Colegiado en Materia Administrativa del Segundo Circuito del Estado de Mexico, RECURSO DE REVISIÓN 364/2019. (Justice Julia Maria del Carmen García González July 3, 2020).

[44] National Green Tribunal, Rajiv Dutta v. Union of India par. 81.x.

[45] New South Whales Land and Environment Court, Taralga Landscape Guardians Inc v Minister for Planning and Another, No. [2007] NSWLEC 59 (February 12, 2007).

> "That every time the existence of levels of contamination that particularly affect children and adolescents is verified, as specified by the administrative authority or by the effects they produce in said population and that are expressed in a symptomatology of their state of health, a condition that will also be specified by the administrative health and education authority, the competent magistracies will order what is pertinent to transfer from the area affected by this situation to all the people that make up the aforementioned group to safe places, a measure that must be maintained until the indicated ceases. crisis event."[46]

In this regard, even thought it was not in a climate change case, the IACtHR has already ordered the resettlement of communities to ensure the full exercise of the right to property of the indigenous communities victims over their territory. In the *Case of Indigenous Communities of the Lhaka Honhat (Our Land) v. Argentina*, the Court approved the actions to relocate the *criollo* population outside the indigenous territories.[47]

### 3.8. Environmental Impact Assessment

We understand the Environment Impact Assessment (EIA) as an order to execute a comprehensive process to evaluate the potential environmental effects of proposed projects, policies, or developments before they are approved or implemented. Actions related to assessing the environmental impact of certain activities are present in 9.03% of the analyzed cases. This reparation measure has been ordered in several jurisdictions in cases where climate-change impacts were necessary to be analyzed. For instance, the National Environmental Tribunal at Nairobi ordered an EIA for the construction of the Lamu Coal-fired Power Plant in Kenia[48]. In Australia, Victorian Civil and Administrative Tribunal has ordered vulnerability assessment studies are ordered to establish the viability of projects or constructions[49]. Likewise, the Colombian Constitutional Court ordered an EIA for the modification of the Bruno River channel[50].

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[46] Corte Suprema de Justicia de Chile, Caso Complejo Industrial Ventanas at 77.

[47] IACtHR, Case of the Indigenous Communities of the Lhaka Honhat (Our Land) Association v. Argentina (Merits, reparations and costs) par. 329.

[48] National Environmental Tribunal at Nairobi, Save Lamu et al. v. National Environmental Management Authority and Amu Power Co. Ltd., No. TRIBUNAL APPEAL NO. NET 196 of 2016 (2016).

[49] Victorian Civil and Administrative Tribunal, Owen v. Casey City Council, No. VCAT REFERENCE NO. P1440/2009 (September 25, 2009) par. 19; Victorian Civil and Administrative Tribunal, Cooke v. Greater Geelong City Council, No. VCAT REFERENCE NO. P1997/2009 & P1998/2009 (January 20, 2010) par. 81.

[50] Corte Constitucional de Colombia, Sentencia SU-698/17, No. Expediente T-5.443.609 (M.P. Luis Guillermo Guerrero Pérez November 28, 2017).

### 3.9. Conduct Studies

This category includes any order to conduct a study related to climate change that is not an EIA. It was identified in 6.25% of the analyzed cases. This includes toxicological and epidemiological studies[51], the evaluation of the quality of water[52], access to water[53], or the impact of bad air quality on human health[54].

### 3.10. Actions for nature

Actions for nature include conservation, restoration, and protection actions to safeguard the environment, being present in 15.22% of the decisions.

#### 3.10.1. Conservation actions

Conservation actions refer to the various strategies, measures, and initiatives aimed at protecting and preserving the natural environment, biodiversity, and ecosystems. These actions are designed to mitigate human impacts, promote sustainable resource management, and maintain the ecological balance for the well-being of present and future generations. This category was identified in 4.86% of the analyzed decisions. It includes, for instance, the prohibition of burning agricultural crops[55], the removal of infrastructure in a forest[56], or the removal of fences and livestock of unlawful settlers[57].

#### 3.10.2. Restoration actions

This category refers to efforts and activities undertaken to repair, rehabilitate, and regenerate degraded or damaged ecosystems and natural habitats to their original or more resilient states. It is present in 4.86% of the analyzed judgments. These measures include the restoration in the event of forest fires in India[58], the re-

[51] Corte Constitucional de Colombia, Sentencia T-622/16, No. T-5.016.242 (M.P. Jorge Iván Palacio Palacio November 10, 2016) holding 8.
[52] Corte Provincial de Justicia de Sucumbíos, Juicio No: 21201202000170 VII.
[53] IACtHR, Case of the Indigenous Communities of the Lhaka Honhat (Our Land) Association v. Argentina (Merits, reparations and costs) par. 322.
[54] Corte Suprema de Justicia de Chile, Caso Complejo Industrial Ventanas par. 57 (d).
[55] National Green Tribunal, Court on Its Own Motion v. State par. 38 (xvi).
[56] Corte Constitucional del Ecuador, Sentencia No. 1149-19-JP/21 par. 344 (c).
[57] IACtHR, Case of the Indigenous Communities of the Lhaka Honhat (Our Land) Association v. Argentina (Merits, reparations and costs) par. 330.
[58] National Green Tribunal, Rajiv Dutta v. Union of India par. 81.ii.

establishment of riverbeds in Colombia[59], and the restitution of a mangrove zone in Mexico[60].

### 3.10.3. Protection actions

Protection actions include strategies, policies, and initiatives aimed at safeguarding and preserving the natural environment, biodiversity, and ecosystems from human-induced threats and negative impacts. This category was identified in 5.56% of the cases. This includes the prohibition of a development or project[61], the prohibition to a Company to develop certain activities[62], and the establishment of borders to establish territories suitable for human activity and for conservation[63].

## 3.11. Action plans for human rights protection

Action plans for human rights protection include comprehensive or specific strategies and initiatives that must be developed by governments, organizations, or institutions to safeguard and promote human rights in a climate change-related case. Measures aimed at protecting human rights are present in 5.56% of the judgments. For example, the Chilean Supreme Court of Justice declared that the Government shall protect the rights of workers in the just transition, ordering it to "implement a plan that contemplates primarily the adoption of measures that seek the reinsertion or retraining of workers affected (…) in order to ensure that the transition towards an environmentally sustainable economy". Likewise, the Immigration and Protection Tribunal of New Zealand ordered the granting of visas to climate change migrants[64]. Furthermore, the Human Rights Committee recommended in *Daniel Billy and others v Australia* the "implementation of measures necessary to secure the communities' continued safe existence on their respective islands"[65].

## 3.12. Consultation and community participation

[59] Corte Constitucional de Colombia, Sentencia T-622/16 fifht holding; Corte Constitucional de Colombia, Sentencia SU-698/17 holding 8.
[60] Corte de Justicia de la Nación de México, Amparo de Revisión núm. 307/2016 (November 14, 2018) par. 78.
[61] Corte de Justicia de la Nación de México, at 78.
[62] Corte Constitucional del Ecuador, Sentencia No. 1149-19-JP/21 par. 344 (c).
[63] Supreme Court of Nepal, Pro Public v. Godavari Marble Industries, No. 068–WO–0082 (April 15, 2016).
[64] Immigration and Protection Tribunal of New Zealand, In re: AD (Tuvalu), No. [2014] NZIPT 501370-371 (June 4, 2014) par. 37.
[65] Human Rights Committee, Daniel Billy and others v Australia par. 11.

This category refers to the process of involving individuals, groups, and communities in decision-making and development activities related to climate change. Consultation and community participation were identified in 4.86% of the decisions. The participation of communities has been ordered in for the creation of an "Intergenerational Pact for the Amazon" in Colombia[66] and for the creation of a protection plan for *Los Cedros* Forest in Ecuador[67]. The IACtHR has widely covered the right to prior consultation of indigenous communities in its case law[68], and it should also be considered for climate change-related purposes.

### 3.13. Material, technical, or scientific resource

Refers to the process of supplying and exchanging materials, technology, or scientific knowledge between individuals, organizations, or countries to support various objectives, projects, or research endeavors. This category was identified in 2.08% of the decisions. The judgments mainly order the allocation of financial resources[69] or order to abstain from omitting to allocate resources for climate change purposes[70].

### 3.14. Protection of environmental defenders (criminal cases)

The protection of environmental defenders in criminal cases was identified when a climate-change activist received a sentence for a crime or misdemeanor and a court of law modifies the sentence in the best interest of the defendant. This category was identified in 2.08% of the decisions and has been used only in Courts at the United Kingdom[71].

### 3.15. Consumer Protection

Consumer protection reparations refer to the removal of advertisements to remedy consumers who have experienced harm, loss, or damages as a result of misleading advertising of "climate-friendly" products. Measures focused on protecting

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[66] Corte Suprema de Justicia de Colombia, STC4360-2018 at 49.

[67] Corte Constitucional del Ecuador, Sentencia No. 1149-19-JP/21 par. 344 (e).

[68] IACtHR, Case of the Indigenous Communities of the Lhaka Honhat (Our Land) Association v. Argentina (Merits, reparations and costs) par. 328.

[69] National Green Tribunal, Rajiv Dutta v. Union of India par. 81. iii.

[70] Federal Supreme Court, Partido Socialista Brasileiro (PSB), Partido Socialismo e Liberdade (PSOL), Partido dos Trabalhadores (PT) e Rede Sustentabilidade v. União Federal (June 5, 2020) par. 36.

[71] Court of Appeal (Criminal Division), R. v Roberts (Richard), No. 2018 WL 06345027 (December 6, 2018); Court of Appeal (Criminal Division), R. v Brown (Extinction Rebellion protest, London City Airport), No. T20190440 (December 8, 2021); High Court of Justice Queen's Bench Division Administrative Court, Director of Public Prosecutions v Angela Ditchfield, No. No. CO/475/2020 (January 12, 2021).

consumers' rights were identified in 3.47% of the cases. These reparations have happened only in common-law jurisdictions and refer to cases when companies misleadingly advertise to be zero-carbon gas[72], having the lowest emissions in the market[73], or that their motor vehicle is carbon-emission neutral[74] when they have no evidence to prove such advertisements.

### 3.16. Oversight of implementation

Oversight implementation makes reference to a judicial or quasi-judicial body order to monitor and supervise the execution and application of climate-change reparations to ensure they are carried out according to the judicial decision. Actions related to monitoring and ensuring the proper implementation of decisions are present in 5.56% of the analyzed judgments. The process of monitoring compliance is characteristic of the IACtHR[75], but sometimes a Court orders to the State to oversight compliance by itself. For instance, the Human Rights Committee ordered Australia in *Daniel Billy and Others v Australia* "to monitor and review the effectiveness of the measures implemented and resolve any deficiencies as soon as practicable"[76]. Domestic courts and committees order that a specific government agency supervises the compliance of the reparation measures[77] or the creation of a group, panel, or institution that oversights implementation[78].

### 3.17. Permissions and concessions

Actions related to granting, modifying, or revoking permissions or concessions, are present in 17.36% of the decisions. This type of orders are highly used in common law domestic courts, especially in Australia and New Zealand.

### 3.17.1. Affirm or modify permissions

This category refers to when current authorizations or access rights given to individuals or entities remain unchanged and are officially confirmed by a Court of

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[72] ASA Complaints Board, Lawyers for Climate Action and others v. Firstgas Group, No. 21/194 (July 6, 2021).
[73] ASA, ASA Ruling on Ryanair Ltd t/a Ryanair Ltd (February 5, 2020).
[74] Federal Court of Australia, Australian Competition and Consumer Commission v. GM Holden Ltd., No. ACN 006 893 232) (September 18, 2008).
[75] IACtHR, Case of the Indigenous Communities of the Lhaka Honhat (Our Land) Association v. Argentina (Merits, reparations and costs) par. 333.
[76] Human Rights Committee, Daniel Billy and others v Australia par. 11.
[77] Corte Constitucional de Colombia, Sentencia T-622/16 holding 9.
[78] Commission on Human Rights of the Philippines, National Inquiry on Climate Change Report at 154.

law or when they remain in place but are subject to certain modifications. They are present in 7.64% of the analyzed judgments. This type of order occurs when a legal permission or concession does not breach the climate change goals or obligations of a State[79] or is just subject to minor modifications[80].

### 3.17.2. Deny or Revoke permissions

Deny or revoke permissions refers to the process of taking away certain rights, privileges, or authorizations that were previously granted to an individual or entity under the scope of the law. This category was identified in 9.72% of the analyzed cases. This type of order is commonly used to disapprove projects[81], mining permissions[82] or to not renew mining exploration rights[83].

## 3.18. Loss of benefits, prerogatives, or status

This category refers to the situation when a State loses advantages or privileges enjoyed inside an international organization or treaty. Loss of benefits, prerogatives, or status is present in 4.86% of the analyzed cases and is only seen in the non-compliance mechanism of the Kyoto Protocol, for the Enforcement Branch of the Kyoto Protocol establishes that a State is not eligible to participate in the mechanisms under Articles 6, 12 and 17 of the Protocol when it is declared in non-compliance of the treaty[84].

## 4. Acknowledgments / Declarations

This includes various types of declarations related to breaches of human rights, threats related to climate change, rights of nature, and recognition of obligations. This category is present in 27.78% of the decisions.

## 4.1. Breaches related to Human Rights

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[79] See for instance: Austrian Federal Administrative Court, In re Vienna-Schwechat Airport Expansion, No. E 875/2017 (2017).

[80] Planning and Enviroment Court of Queensland, Copley v. Logan City Council and Anor, No. QPEC 39 (2012) par. 53(2).

[81] Land and Environment Court of New South Whales, Bulga Milbrodale Progress Association Inc. v. Minister for Planning and Infrastructure and Warkworth Mining Limited (April 15, 2013) par. 500(2).

[82] Corte Constitucional del Ecuador, Sentencia No. 1149-19-JP/21 par. 347 (e).

[83] High Court of South Africa, Sustaining the Wild Coast NPC and Others v. Minister of Mineral Resources and Energy and Others, No. Case No. 3491/2021 (2021) par. 141.3.

[84] Enforcement Branch of the Kyoto Protocol, CC-2007-1-8/Greece/EB par. 18(c); Enforcement Branch of the Kyoto Protocol, CC-2011-2-9/Ukraine/EB par. 24(c); Enforcement Branch of the Kyoto Protocol, CC-2011-3-8/Lithuania/EB par. 24(c).

These refer to actions or events that violate individuals' fundamental rights and freedoms as enshrined in international human rights law or constitutional and domestic dispositions. This category is present in 2.08% of the analyzed decisions. For example, the Federal Court of Nigeria in a case against Shell Petroleum declared that actions pursued by the defendants consisting in flaring gas in the course of their oil exploration and production activities in a certain Community is a violation of the fundamental rights of the inhabitants to life and dignity of human person guaranteed by the National Constitutional and reinforced in the African Charter[85]. Similarly, the Constitutional Court of Colombia, has declared in the *Atravo River case* the existence of a serious violation of a larger list of correlated rights equally affected, such as the fundamental rights to life, health, water, food security, a healthy environment, culture and the territory of the ethnic communities that inhabit the basin of the River and even the ones that do by its tributaries[86]. Finally, other in other cases, courts have declared the violation of some rights related with procedural obligations as the rights of potentially affected communities to prior consultation on decisions or authorizations that may affect the environment[87].

### 4.2. Breaches or threats related to Climate Change

These pertain to activities or circumstances that contribute to or exacerbate the negative impacts of climate change. Breaches in this context may include actions that increase greenhouse gas emissions, hinder climate mitigation efforts, or fail to adapt to the changing climate, leading to ecological, social, and economic consequences. Declarations of this nature are present in 9.03% of the decisions this document is reporting. For example, in the international level, the 10 cases reported from the Kyoto Protocol Enforcement Branch, in which, it first declares the respondent States to be in non-compliance with the treaty obligations[88] following the decree of remedial measures. At the domestic level, national courts have also included in their rulings statements on the failure to comply with the obligations of acts and laws adopted by States to address the phenomenon of climate change. Such is the case of the High Court of Justice of England and Wales of the United Kingdom, which decided in the *Friends of the Earth (FoE)* case that the Secretary of State for Business Energy and Industrial Strategy did not comply with both the Climate Change Act by failing, among

[85] Federal High Court of Nigeria, Gbemre v. Shell Petroleum Development Company and others holding 2.
[86] Corte Constitucional de Colombia, Sentencia T-622/16 third holding.
[87] Corte Constitucional del Ecuador, Sentencia No. 1149-19-JP/21 par. 347 (c)(d).
[88] Enforcement Branch of the Kyoto Protocol, CC-2009-1-8/Croatia/EB (November 26, 2009) par. 23(a); Enforcement Branch of the Kyoto Protocol, CC-2008-1-6/Canada/EB (June 15, 2008) par. 17 (a)(b); Enforcement Branch of the Kyoto Protocol, CC-2018-1-4/Monaco/EB (August 30, 2018) par. 22(a).

other, to consider the quantitative contributions that individual proposals and policies were expected to make to meeting carbon budgets, and also the Equality Act, because it failed to carry out an Equality Impact Assessment in respect of the Heat and Buildings Strategy pursued by the office[89].

### 4.3. Breaches or threats to rights of nature

This refers to situations where the rights and intrinsic value of nature and its components, such as ecosystems, species, and natural entities, are violated or endangered. This type of breach appears exclusively in jurisdictions where nature has its own legal status and rights according to constitutional or legal dispositions. Such recognition has only taken place in a few decisions at the domestic level, without finding a place, at least not yet, at the level of international rulings. Therefore, these declarations are present in 1.39% of the decisions analyzed, only 2 of which include it in their provisions. On the one hand, the already mentioned *Atravo River case*, in which the Colombian Constitutional Court expressly indicated that "Atrato River, its basin and tributaries as an entity subject to rights of protection, conservation, maintenance and restoration by the State and ethnic communities", ordering them to exercise the legal guardianship and representation of the rights of the river[90]. And secondly, the Constitutional Court of Ecuador, in the same vein, has advanced the declaration of the violation of the rights of nature corresponding to Bosque Protector Los Cedros, after issuance of environmental permits for the initial exploration phase of the Magdalena River mining concessions[91].

### 4.4. Declaration or recognition of obligations

This refers to the formal acknowledgment or assertion of specific duties, responsibilities, or commitments by individuals, organizations, or states. Again, this type of measure is present in domestic jurisdictions, and has been identified in a small group of 4 decisions, distributed in Africa, Asia and Latin America, present in 2.78% of the 144 decisions. An example of these is the Nigerian Supreme Court's observation of the Oil Pipelines Act and the obligations to prevent the pollution of land and water that it imposes, in accordance with the right to life and the duty of the State to protect and improve the environment and safeguard the water, air and land, forest and wild life of the country enshrined in the Constitution, along with the right included in the African Charter to a general satisfactory environment favorable to their development. Leading it to conclude that that the Constitution, the legislature

[89] High Court of Justice, R (oao Friends of the Earth) v. Secretary of State for Business Energy and Industrial Strategy, No. Claim Nos CO/126/2022 (2022) holdings 3-5.
[90] Corte Constitucional de Colombia, Sentencia T-622/16 holding 4.
[91] Corte Constitucional del Ecuador, Sentencia No. 1149-19-JP/21 par. 347 (b).

and the African Charter, recognize the fundamental rights of the citizenry to a clean and healthy environment to sustain life, and thus, Nigeria is bound to respect and protect it[92].

Likewise, the declarations also describe obligations that arise from emergency situations and impose actions on the State and derive from its obligations.The Commission on Human Rights of the Philippines has ordered for instance:

> Declare a Climate and Environmental Alert The government must recognize the need for urgent measures to address the impacts of climate change. There must be an acknowledgement that anthropogenic climate change, if left unmitigated, can and will lead to global extinction; that existing measures to combat its consequences must be improved; and that long-term measures for adaptation, mitigation, and resiliency must be translated to concrete actions.[93]

## 5. Quantitative findings

The following charts provide a breakdown of the different types of reparation measures found in the dataset analyzed. The next charts list the percentage of gross occurrences of each type of reparation measure among the 382 total reparations identified in the 144 decisions. This provides an overview of their prevalence to identify trends and patterns and consequently the formulation of hypotheses and speculations about the use and design of the reparation measures under international and domestic law.

**Climate Change Reparations frequency in Coded segments**

| | **Frequency[94]** | **Percentage** |
|---|---|---|
| **PECUNIARY REPARATIONS** | | |
| **Economic compensation** | **9** | **2.36** |
| **Institution of funds** | **3** | **0.79** |

[92] Supreme Court of Nigeria, Centre for Oil Pollution Watch (COPW) Vs NNPC, No. SC. 319/2013 (July 2018) par. 33.
[93] Commission on Human Rights of the Philippines, National Inquiry on Climate Change Report at 154.
[94] Of the reparation measures in the coded segments.

| | | |
|---|---|---|
| **NON-PECUNIARY REPARATIONS** | | |
| **Restitution** | **3** | **0.79** |
| **Rehabilitation** | **1** | **0.26** |
| **Satisfaction:** | | |
| • **Publication of the Judgment** | **6** | **1.57** |
| • **Public Apologies** | **2** | **0.52** |
| • **Other publications** | **4** | **1.05** |
| **Ob to investigate** | **2** | **0.52** |
| **Non-repetition:** | | |
| • **Regulate, modify, interpret or annul regulations** | **73** | **19.11** |
| • **Non-repetition** | **1** | **0.26** |
| • **Public Policy** | **22** | **5.76** |
| • **Trainings** | **3** | **0.79** |
| **Mitigation measures:** | | |
| • **Reduce emissions** | **30** | **7.85** |
| • **Adapt the domestic legal system (for emissions)** | **40** | **10.47** |
| • **Reduce deforestation** | **11** | **2.88** |
| **Adaptation measures:** | | |
| • **Adaptation plan** | **3** | **0.79** |
| • **Construction of climate change-related infrastructure** | **2** | **0.52** |

| | | |
|---|---|---|
| • **Resettlement programs** | **3** | **0.79** |
| **Environmental Impact Assessment** | **14** | **3.66** |
| **Conduct Studies** | **10** | **2.62** |
| **Actions for nature:** | | |
| • **Conservation actions** | **11** | **2.88** |
| • **Restoration actions** | **11** | **2.88** |
| • **Protection actions** | **12** | **3.14** |
| **Action plans for human rights protection** | **9** | **2.36** |
| **Consultation and community participation** | **7** | **1.83** |
| **Material, technical or scientific resources** | **5** | **1.31** |
| **Protection of environmental defenders (criminal cases)** | **3** | **0.79** |
| **Consumer Protection** | **5** | **1.31** |
| **Oversight of implementation** | **8** | **2.09** |
| **Permissions and concessions:** | | |
| • **Affirm or modify permissions** | **11** | **2.88** |
| • **Deny or Revoke permissions** | **19** | **4.97** |

| | | |
|---|---|---|
| **Loss of benefits, prerogatives or status** | **7** | **1.83** |
| **ACKNOWLEDGMENTS / DECLARATIONS** | | |
| **Breaches related to HR** | **5** | **1.31** |
| **Breaches or threats related to CC** | **13** | **3.40** |
| **Breaches or threats to rights of nature** | **3** | **0.79** |
| **Declaration or recognition of obligations** | **11** | **2.88** |
| **TOTAL** | **382** | **100.00** |

**Some general findings:**

- The category with the highest frequency is "Regulate, modify, interpret, or annul regulations" with a frequency of 73, which corresponds to 19.11% of the total measures.
- The category with the second-highest frequency is "Adapt the domestic legal system" with a frequency of 40, accounting for 10.47% of the total measures.

*The normative measures, are for sure, the most common design of remedies for climate change related cases.*

- The category with the third-highest frequency is "Reduce emissions" with a frequency of 30, making up 7.85% of the total measures.

*This may be due to the fact that many of the legal instruments on the matter have as their main objective the measurable legal obligations of reduction of gas emissions that cause climate change.*

- Various categories have low frequencies, indicating they are less commonly considered by adjudicators when dealing with climate change obligations breaches. For instance, the classic category of Rehabilitation only appears once, representing 0.26% of the total of reparative measures. This percentage

suggests that the concept of "Rehabilitation" is not a prominent focus when it comes to remedial harms caused by the breach of climate change duties. Likewise, the order to adopt comprehensive adaptation plans or construct climate change related infrastructure is not recurrent. Only decided 3 and 2 times, representing a 0.79% and 0.52%, respectively, of the total 382 reparation measures. Which suggests that adjudication bodies are not considering yet the needs to strengthen resilience capacities to reduce vulnerability to climate change unavoidable and current effects and might be centering the whole attention to prevention and mitigation.

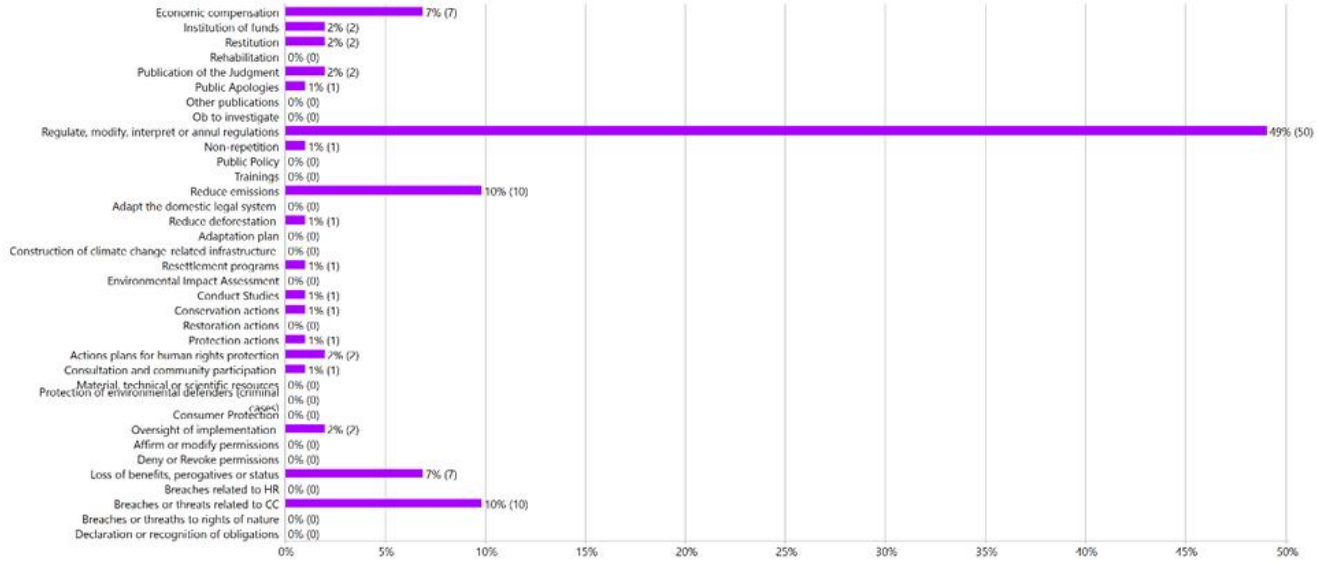
- Measures aimed to provide, transfer or ensure material, technical, or scientific resources were included 5 times in the dataset, with a percentage of 1.31% of the total segments. Results relatively higher compared to the previous categories, but still relatively low overall, despite the international treaty like the Paris Agreement includes specific provisions in this regard (Article 6.8).
- The actions for nature category covers 8.9% of the total reparations measures, distributed in 12 orders of protection actions, 11 of conservation actions and 11 of restoration actions.
- Other categories such as the ones related to permissions and concessions amounts to 7.85% of the total measures, specifically in 11 affirmations and/or modification of permissions and 19 denials and/or revocation of authorizationS to deploy a specific activity with environmental impact.

As seen, a third of the Climate Change Litigation is based on the judicial review of rules, laws, and regulations. Almost 11% of the judicial review is related specifically to greenhouse effect gas emissions and 19% to other climate change and environmental related regulations.

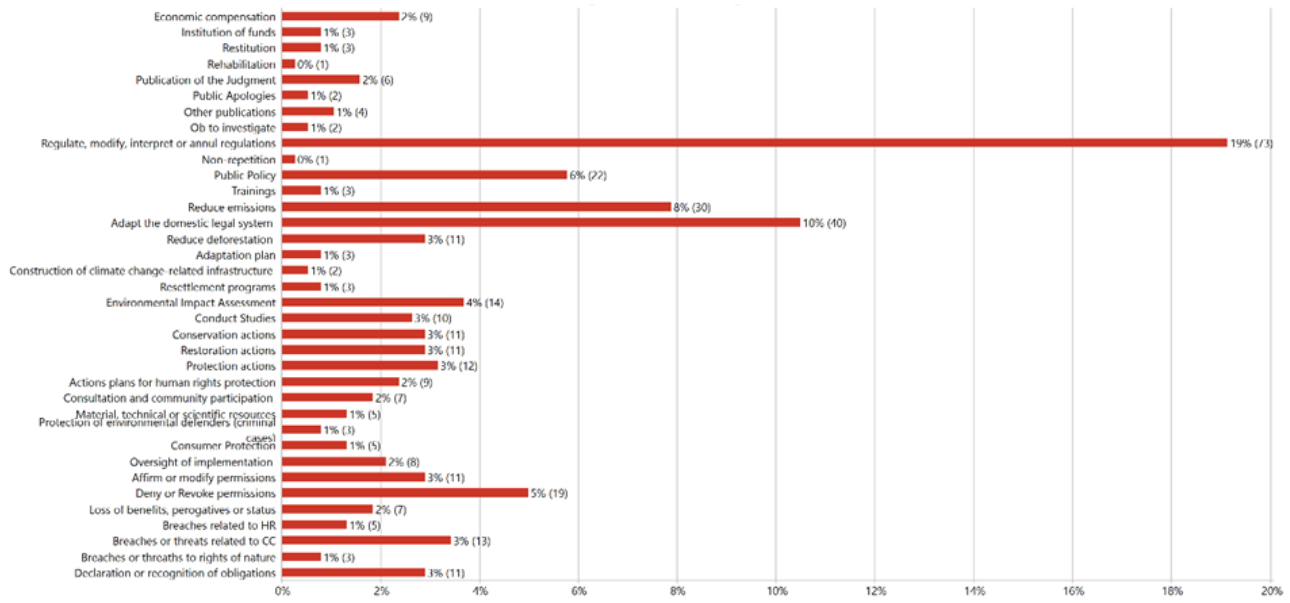
The rest of the categories with lower frequencies and percentages may represent specific aspects or actions that are relevant to the dataset to address the cases and the damages caused, but are not as frequently mentioned as the previous two other major categories.

The following are the results of the preponderance of each measure organized according to forum, i.e., international decisions, domestic decisions, and decisions coming only from national courts in Latin America:

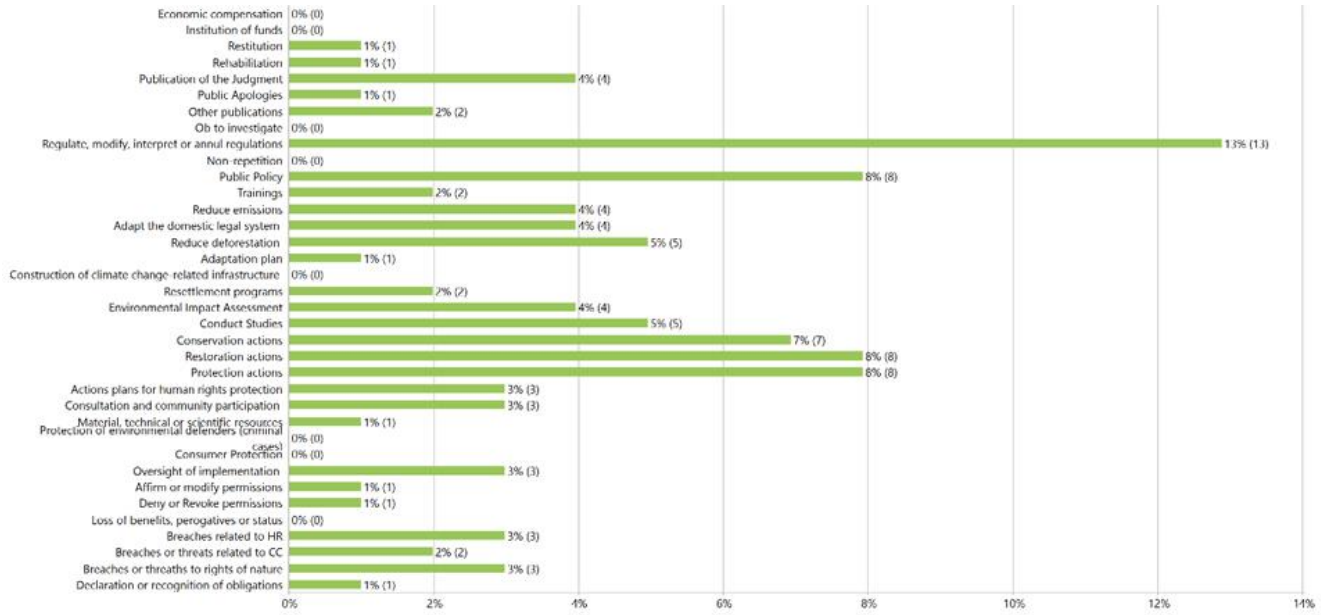
## International decisions




## Domestic decisions



## Latin-American decisions




**Other findings:**

- International courts are mainly focused on ordering to regulate, modify, interpret or annul regulations related to climate change matters other than the emission of greenhouse gasses, accounting to the 49% of the reparations ordered at that level. In contrast, the domestic level, although, also shows predominance of this category, at the same time, it certainly addresses the needs to adapt the legal system rules and norms that are referred to decreasing the level of emissions as a mitigation measure.
- Latin American American Courts show a wide range of possible remedies to be orderend, for is has a broad distribution of use of the reparation measures identified. Moreover, Latin American Courts have a high rate of reparation measures related to climate change-related public policy (8%), restoration actions (8%), and conservation actions (7%).

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# Local Perceptions of Climate Reparations and International Responses in the Philippines

*Principal Investigator: Garrett Pacholl*

## Abstract

Climate reparations for impacted communities are a growing part of international climate legislation. Discourse surrounding the subject often mentions addressing the needs of these communities, but how specifically those needs are identified and addressed can still be nebulous. This study investigates perceptions and awareness of climate change reparations on the international stage and their ability to adequately provide for community needs, focusing on the Philippines as a relevant case study. It employs a qualitative exploratory methodology in conversations with climate NGO workers and indigenous community leaders. The results demonstrate that community awareness of direct impacts of climate change is relatively high while knowledge of causes of or accountability for these phenomena is generally less substantial. Participants identified three main components of ideal reparations measures: shifting focus to local communities, expanding climate change education, and fostering wider systemic change.

## Introduction

The body of climate change litigation on both the national and international stages is rapidly growing with each passing year. The most recent Global Climate Litigation Report from the United Nations Environment Programme (UNEP) lists 2,180 cases filed in 65 jurisdictions up to the year 2022, most of which were filed in recent years.[1] One component of this legislative corpus involves the concept of climate reparations; that is, remedies for human rights violations caused specifically by climate change impacts.[2] This field received a significant stimulus in the landmark decision *Daniel Billy and others v. Australia* in September 2022, which found the state of Australia in violation of the International Covenant on Civil and Political Rights (ICCPR) for failing to implement sufficient positive prevention measures against climate change and compelled the state to provide effective remedies and engage in meaningful community

[1] United Nations Environment Programme. "Global Climate Litigation Report: 2023 Status Review." Nairobi: United Nations, 2023. xiv.

[2] This definition of "climate reparations" is adapted from the rhetoric used in U.N. Human Rights Committee. *Daniel Billy and others v. Australia*. CCPR/C/135/D/3624/2019. 22 September 2022. Para. 11; and United Nations General Assembly. *Basic Principles and Guidelines on the Right to a Remedy and Reparation for Victims of Gross Violations of International Human Rights Law and Serious Violations of International Humanitarian Law*. A/RES/60/147. 21 March 2006. Para. 15-24.

consultations.[3] This decision is likely to set a precedent for future cases in other parts of the world, as well. To what extent, however, do such remedies take into account the needs and voices of the communities most affected by climate change? This study seeks to identify community perceptions of international climate reparations measures and their beliefs as to what should be included in ideal remedies, using the Philippines as a relevant case study.

The current situation of climate change impacts and community responses in the Philippines can provide compelling insights into this question. The Philippines is consistently ranked as one of, if not the most, climate vulnerable nations in the world.[4] More typhoons strike this country than any other and the world, complemented by torrential rain, heatwaves, and earthquakes that increase in frequency and severity each year.[5] Compounding these impacts is a proliferation of extractive industry in past decades that leads to severe environmental degradation with detrimental impacts on local groups, such as large-scale mining.[6] These factors have led to the growth of a vibrant civil society movement revolving around environmental activism. Such advocacy, however, is frequently suppressed by government and corporation interests manifesting in the harassment, threatening, and even killings of environmental defenders.[7] It was in this context that the Commission on Human Rights in the Philippines released its landmark report, the *National Inquiry on Climate Change Report*, asserting that climate change impacts are directly responsible for human rights violations, for which fossil fuel companies may be held accountable under Philippine law.[8] The Philippines and its people thus stand as important examples of the intersectional impacts of climate change and progressive community responses in light of these manifestations.

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[3] U.N. Human Rights Committee. *Daniel Billy and others v. Australia*. CCPR/C/135/D/3624/2019. 22 September 2022. Para. 8.14, 11.
[4] Mucke, Peter et. al. *WorldRiskReport 2022*. Bochum: Bündnis Entwicklung Hilft, 2022. 6-7.
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[8] Commission on Human Rights. *National Inquiry on Climate Change Report*. Quezon City: Commission on Human Rights, 2022. 35, 109-113.

## Methodology

This study consisted of ethnographic field work using a qualitative exploratory methodology. Semi-structured and informal interviews were conducted over an eight-week period with NGO workers and officials working in climate-related issues (14 respondents), as well as with indigenous community leaders (6 respondents), who were identified due to their proximity to climate change impacts and discussions in personal experience or professional life. The study had a total of 20 participants. Informed consent was obtained following commonly accepted ethical principles for the conduct of research, the specifics of which were approved via Institutional Review Board. Data collection took place in the Luzon region of the Philippines, primarily in Metro Manila and Palawan, supported by virtual interviews with respondents from the Visayas and Mindanao regions. Interviews were conducted in English or in Tagalog with the assistance of a local translator.

Interview questions primarily revolved around three issues: climate change impacts on the participants' local communities, awareness of the concept of climate reparations and international efforts, and desired characteristics to constitute "climate reparations." In data collection, emphasis was placed on community perceptions of the issues raised. Secondary sources, such as United Nations reports, laws in the Philippines, and published articles, were used to contextualize and verify information given through interviews. Data collected was later organized by topic and content in separate files.

## Climate Change Awareness

Generally, awareness of a changing environment in the communities the participants worked with was high. When prompted about how, if at all, the environment of their regions of occupancy had changed in recent years, participants listed several different manifestations of climate change impacts, including but not limited to: increased typhoon destruction and frequency, more severe flooding, heat waves, torrential rain, increased difficulty in getting adequate returns from farming and fishing, and sea level rise. Understanding of climate change impacts encompassed both sudden-onset and slow-onset manifestations. One participant described how their coastal home community's land was gradually being swallowed up by the rising ocean nearby, saying, "it's very evident, you know?" Respondents also emphasized that environmental destruction was not only becoming more severe but was also widening in scope.

Participants in Palawan, for example, described the devastation brought about by Super Typhoon Odette in 2021, referenced as the first super typhoon to impact Palawan in recent memory. They highlighted that, as the island was usually less impacted by typhoons than other regions, most local groups were unprepared for the destruction and suffered devastating losses of lives, livelihoods, and infrastructure.

Climate change impacts were also described from an intersectional perspective with a focus on anthropogenic contributions, especially among NGO worker respondents. Participants stressed that climate change was both a causal and exacerbating agent of negative community impacts. A number of them mentioned issues arising from the rapid expansion of extractive industry development projects, especially in reference to mining. These initiatives were frequently described as damaging to local environments and communities (especially indigenous groups) directly while also contributing to exacerbations of wealth inequality, conclusions supported by secondary scholarly research.[9] Multiple participants also referenced the dangers of militarization and the harassment and killings of environmental defenders regarding questions on "climate change impacts." Others stressed impacts on community members, especially in reference to losses in economic opportunity (such as fishermen being unable to work due to rain and limited fish hauls) and displacement from natural disasters. As a recurring theme, most respondents emphasized climate change impacts as being dependent on local contexts; how they specifically affect communities depends on the geographical, socioeconomic, cultural, and political situations of each area.

While there may be a general understanding of climate change impacts in the populations that the interviewees are connected to, a high level of concern was expressed in knowledge of the causes of climate change, related accountability, and steps forward. Multiple NGO workers described their work as primarily revolving around education on these related factors, since climate change impacts themselves were widely understood as lived experiences. All NGO respondents who were prompted about the understanding of their communities of national and international liability for climate change expressed doubt that the general public in their areas had a widespread awareness of primarily responsible parties or the various factors behind the

[9] Holden, William. "Mining amid typhoons: Large-scale mining and typhoon vulnerability in the Philippines." *The Extractive Industries and Society* 2, no. 3 (2015): 455. DOI: 10.1016/j.exis.2015.04.009.

exacerbation of climate change impacts worldwide. Environmental change was sometimes perceived as a local phenomenon; for example, one indigenous leader expressed confusion as to why nature was changing so rapidly, since they did not know of any large-scale mining operations or slash-and-burn agriculture practices near them. Interviewees and their communities primarily described efforts to address climate change impacts on the local level as relating to either local mitigation and adaptation strategies (protests of a local mining operation, for example) or increasing awareness of the global dimension of climate change. Discussions of Global North and corporate accountability for climate change exacerbation in the Philippines primarily rested in advocacy circles.

General awareness of the concept of "climate reparations" for affected communities was relatively low. When prompted on their familiarity with the concept, none of the six indigenous community leaders expressed an understanding of climate reparations, nor any substantial knowledge on international responses to climate change or the availability of climate reparations. They also indicated that they were unaware of how they might specifically ask for assistance from the international community. Other respondents frequently cited similar levels of general understanding in the communities they worked in. Multiple participants stated that "reparations" in their circles were primarily understood in the context of perceived severe human rights abuses (i.e. torture, killings), rather than specifically regarding climate change. Another respondent mentioned that responsibility for climate change impacts was often understood differently on the local level as a more direct causality; for instance, a displaced group from a typhoon might understand their forced movement as resulting from the typhoon in itself, rather than in the climate change impacts that exacerbate these typhoons' intensity and frequency. The study also noted that initial impressions of the concept of climate reparations among NGO workers frequently revolved around the concept of Global North and corporate responsibility for carbon emissions.

## Conceptions of Reparations

Participants in the study offered several suggestions on what to incorporate in reparations measures and approaches that were frequently rooted in the issues that their communities faced. For most participants, reparations were initially understood primarily in a pecuniary sense. Other conceptions of reparations were discussed in further questions.

The most common recommendation that interviewees put forth to include in climate reparations was shifting focus directly to local communities. Interviewees expressed high levels of disillusionment in the ability of the international community and the government of the Philippines to provide prompt, adequate, and accessible reparations measures for affected communities. Perceptions of government corruption and the inability of the international system to fully understand or provide for communities at the local level were common points of discussion throughout many interviews. On the national level, a number of interviewees worried that pecuniary reparations measures would not be properly handled within government administration should they be directed through these channels. Several participants expressed concerns about high levels of technical jargon (which the term "climate reparations" was frequently perceived as) and bureaucracy that made international reparations measures only accessible to high-capacity, distant INGOs and not the most vulnerable communities on the ground, who often lacked the language skills or the capacity to navigate these numerous hurdles. Respondents therefore proposed that pecuniary reparations measures be put into place that flow directly to affected communities and local civil society organizations who have knowledge of their own unique contexts in order to prevent these difficulties. The goal of these measures would be to accompany communities in responding to climate change, or, as one participant stated, "helping communities build their own solutions."

Another common recommendation for reparations was support for more comprehensive education on climate change. As mentioned previously, one of the primary issues identified by many respondents was the lack of broad awareness on the global causality of climate change or who or what should be held accountable for the resulting damages caused. Part of the difficulty in having reparations reach communities most affected by climate change in the Philippines is this frequent gap in awareness, as the concept of reparations and accountability are not applied to their lived experiences. Several participants therefore recommended that reparations measures include education programs to contextualize these experiences in the broader framework of climate change impacts, and to make people more aware of who or what is responsible for these shifts. As one respondent stated, lacking knowledge of climate change means lacking knowledge of climate reparations.

Respondents also highlighted the need for more comprehensive structural transformations to work towards addressing systemic problems that continue to be responsible for harms against

communities resulting from climate change impacts. Several interviewees perceived national laws as ineffective in both scope and enforcement to properly address the growing climate crisis and recommended implementing stronger legal measures, both through the passage of new laws and through reviewing pre-existing ones (such as RA 7942, the Mining Act of 1995, which was most frequently seen as contributing to the exacerbation of climate change impacts). They also highlighted the importance of strengthening the judiciary to properly enforce laws, as well as the implementation of transparency and accountability measures. In this same vein, multiple respondents brought up the possibility of establishing committees at the national level to elevate local voices. Some participants also placed the conversation of community reparations in a wider context of climate justice to address larger issues that contribute to environment-related harms in local communities. For example, one interviewee highlighted the need for transfer of green technologies and knowledge thereof as well as industry support for the expansion of renewable energy as part of their conception of climate reparations, as these measures would mitigate the harm groups in the Philippines are currently experiencing.

## Discussion

The findings of this report raise a number of potential concerns between the goals of reparations in supporting affected communities and current approaches to addressing climate reparations under international law. Using the example of *Daniel Billy and others v. Australia* and, more widely, claims submitted under the First Optional Protocol of the International Covenant on Civil and Political Rights, victims are expected to submit a petition to the Human Rights Committee. According to Articles 2 and 3 of the ICCPR, submissions must be presented without the protection of anonymity and only after all domestic remedies have been exhausted. Individuals submitting a claim must enumerate which rights have been violated.

This approach runs into difficulties when considering the findings of this study. First, submitting a petition requires an awareness of the harm committed with liability in mind, existence of the ICCPR, the rights found within, and the Philippines' party status to the treaty, among other aspects. Interviewees frequently spoke of a lack of knowledge on general international responses to climate change impacts among their local communities, much less these specific facts regarding international law that are frequently locked behind language barriers and technical jargon. A potential petitioner must then attempt all available domestic

remedies for their situation, which they may not have knowledge of. The individuals in question must then submit a proposal (which they may not have the time, capacity, or ability to draft, depending on their situation or the gravity of harm suffered) with their identities clearly visible, in a country where frequent human rights abuses against environmental defenders have been extensively documented. Decisions to award reparations may come years later. This process places the burden of effort on the victims to seek reparations for harms committed against them, which they are likely not to have the knowledge or ability to do, and potentially place themselves in danger or further harm.

Additionally, those who have been most affected by climate change impacts may be unlikely to begin this process in the first place. As mentioned previously, the study noted high levels of disillusionment with the ability of the international legal system to provide prompt, adequate, and accessible reparations measures for local communities. Given the high level of effort required to seek out these measures, it is unlikely that the communities discussed in this study would take these extensive steps to reach out to the international legal system in the first place. Multiple participants highlighted other potential difficulties in encouraging communities to seek reparations measures, notably cultural emphasis on the "spirit of resilience" that can discourage seeking outside help, and shyness in describing specifically what impacts a community is suffering from depending on the level of trust among communicants.

## Conclusion

It is critical that attempts at reparations take into account these potential roadblocks in the process of moving towards more inclusive and comprehensive climate reparations measures. Collaboration with civil society organizations that have developed strong relationships with vulnerable communities may assist in gauging how communities might best benefit from reparations measures. Efforts should be taken to ensure that the prescription and enforcement of remedies for climate change impacts continually account for the diverse needs within and among local groups in ways that directly reach them. Taking this more grassroots approach to reparations and more extensively incorporating local voices in the process will ensure that such measures are more prompt, adequate, accessible, and responsive to the needs of these groups.

**Acknowledgements**

The author is deeply grateful for the contributions of all of those who participated in this study and for their time and effort in making its goals a reality. This research was made possible through the support of the Liu Institute for Asia & Asian Studies and the Glynn Family Honors Program at the University of Notre Dame. For any questions about this study, please contact the principal investigator at

NOVEMBER 2022



PULTE INSTITUTE
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# WATER AND HUMAN RIGHTS, UNLOCKED: A GUIDE FOR WATER-INTENSIVE INDUSTRIES

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## ACKNOWLEDGEMENTS

Research for this paper was graciously funded by BHP, who did so to encourage new perspectives on global water stewardship. The views and opinions discussed in this paper are our own and not necessarily representative of opinions held by BHP. All potential errors are our own. We owe deep gratitude to those who provided feedback, including Tony Hodge, Kari Dolan, Philip Alston, Jim Silk, and Florian Wettstein.


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Front cover image: **Forest waterfall in serene Hogsback Arboretum, Eastern Cape, South Africa**

Source: Gettyimages.com

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# EXECUTIVE SUMMARY

Worsening global water insecurity drastically impairs the health and livelihoods of communities throughout the world, while further endangering interlinked ecosystems in our planet. This is especially true in areas impacted by water-intensive, yet critically needed, industries like the mining, beverage, garment, and agriculture sectors.

Within these industrial spaces, any effective water stewardship strategy or allocation plan must consider the human right to water. This paper introduces the **Realizing Rights for Water (RRW) Framework**, a human rights-based approach to water management that empowers actors in water-intensive industries to fulfill the human right to water and all interrelated human rights. Though extremely comprehensive in nature, the RRW Framework attempts to do something quite simple: **empower industry actors, prior to implementation, to ask the right questions about how their proposed operations could impact human rights in their areas of operation**. Answering these questions in advance will enable proactive building of a more contextualized schematic for mitigating human rights risks, directly embedding this schematic onto operational processes and activities.

The Framework consists of three parts. First, it assesses the impacts of the considered industrial operation(s) on the water security of affected communities. In doing so, it embraces the multi-dimensional nature of water as necessary for health, livelihood, food security and cultural and spiritual fulfillment. Next, it evaluates water-related governance concerns by including factors such as institutions, norms, and historical grievances. Finally, it maps findings from these two assessments onto a legal framework that helps actors identify potential threats to the fulfillment of both the human right to water and of the other human rights that depend on water.

We created the RRW Framework in response to a critical gap in both the scholarly literature and existing water management best practices. Our approach is based on the recognition that existing indicator-based assessments are insufficient to generate a nuanced understanding of how the human right to water and interrelated rights manifest in operational contexts. Current assessments also generally do not empower companies to act proactively to prevent, rather than just focus on remediating, outcomes ensuing from adverse human rights situations. A practical and substantive implementation-focused approach to the human right to water and its relationship to water-intensive industrial processes was needed, if not demanded, by industry-related actors. This is even more urgent in the face of the widening global movements towards ensuring the duty of business to respect human rights under Pillar II of the United Nations Guiding Principles on Business and Human Rights.

Our proposed framework is a modest step in the long journey towards fair, ethical, sustainable and equitable water stewardship practices in water-intensive industries. We hope that this report generates further discussion, reflection, and activism among our intended audience, which includes (but is not limited to) academic researchers, project managers and engineers making operational decisions in water-intensive industries, government officials drafting water policy and regulation, and civil society organizations or community leaders. We trust that the RRW Framework widens and enriches the ongoing dialogue between many constituencies seeking to help realize and implement the human right to water for all.

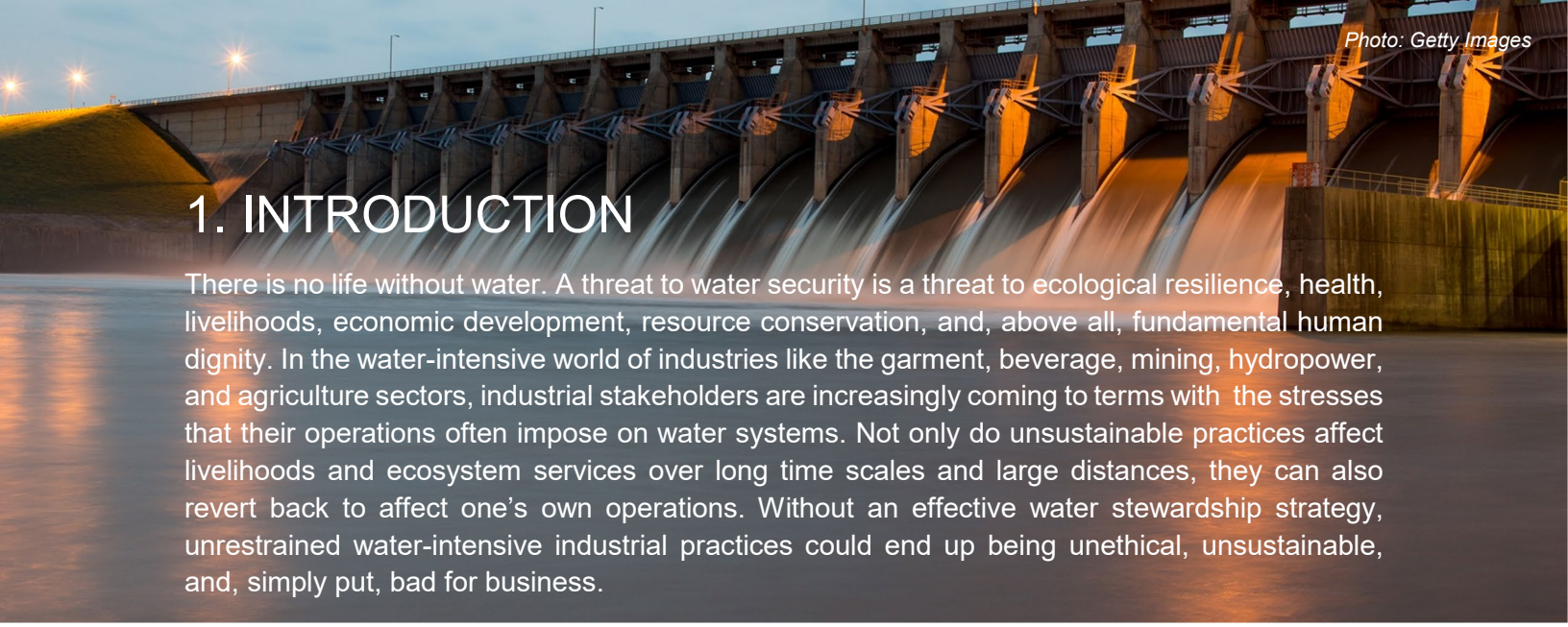
Photo: Getty Images

# 1. INTRODUCTION

There is no life without water. A threat to water security is a threat to ecological resilience, health, livelihoods, economic development, resource conservation, and, above all, fundamental human dignity. In the water-intensive world of industries like the garment, beverage, mining, hydropower, and agriculture sectors, industrial stakeholders are increasingly coming to terms with the stresses that their operations often impose on water systems. Not only do unsustainable practices affect livelihoods and ecosystem services over long time scales and large distances, they can also revert back to affect one's own operations. Without an effective water stewardship strategy, unrestrained water-intensive industrial practices could end up being unethical, unsustainable, and, simply put, bad for business.

Yet, addressing water-intensive industrial impact is often not as simple as stopping harmful production or moving business elsewhere. Industrial operations often must persist in some capacity. The world increasingly looks to mining companies to produce the "transition minerals" desperately needed for renewable energy technologies, and these sites are not easily interchangeable with other locations. Hydropower, though potentially damaging to the health of streams and local livelihoods, currently accounts for 16% of all energy generation globally, exceeding wind and solar by a factor of 3 (International Energy Agency 2021).

Moreover, each of these industries also operates in a context of complex competing rights claims on water from diverse stakeholders – native populations, agriculturalists, urban settlements, and public utilities, to name a few. Discerning which among these different groups has primacy of claim is not straightforward. Who has the authority to decide? What set of principles should be used to guide that decision-making process? How should these rules or principles be implemented? Is there some universal set of principles that might be applied across different national contexts to guide such decision-making?

There are no easy solutions for ethical and sustainable water management. Depending on the context, mitigating the social and environmental impacts of water-intensive industries requires interventions from multiple angles: inventing more sustainable technologies, constructing least intrusive or least-externalizing infrastructure, implementing effective regulation, conducting comprehensive audits, and reimagining how industry can invest in the communities where they operate and genuinely see such investment as an asset to their business enterprises.[1] In addition, what constitutes a 'just' and sustainable water allocation and management is very much driven by the local historical, legal and institutional context.

Yet the vital nature of water is universal and transcends any individual management context. Since 2010, access to water has been pronounced a fundamental human right, in addition to being part and parcel to the fulfillment of several long-established human rights. Based on these

[1] This assertion builds off of Georges Enderle's concept of wealth creation in *Corporate Responsibility for Wealth Creation and Human Rights* (2021).

considerations, **we argue that human rights should serve as a universal normative yardstick that informs the prioritization and evaluation of water uses across contexts.**

The broad language and universal nature of human rights introduces serious application challenges to specific, local, and operational contexts. As with any normative framework, using human rights to support decisions without proper regard to local context might dilute – or completely erase – the complexity of the water management challenges that are encountered in practice. A clear, contextually-driven articulation of what the human right to water implies in terms of water security and governance outcomes, is ultimately required to effectively apply the human right to water in water allocation and use decisions.

The above arguments outline a gap between (i) the complex water security and governance challenges in practice that need to be addressed and prioritized, and (ii) the human right to water as a universal normative framework that attracts consensus, but requires adaptation to the local complexity of practical water challenges. The **Realizing Rights for Water (RRW) Framework** presented in this paper addresses this gap in three steps. First, it explores potential local water security concerns for a proposed operation (or set of operations), ranging from impacts on groundwater to associated impacts on agriculture and water-based livelihoods. Next, it collects water-related governance concerns that analyze factors such as institutions, norms, and historical grievances. Finally, it maps results from these two assessments onto a legal framework to identify potential threats to the human right to water and all interrelated human rights.

The RRW Framework is directed towards actors making water allocation decisions in the context of water intensive industries. These decisions often have implications with regard to the human right to water that may be unaccounted for in the decision-making process, or possibly be unknown to the relevant authoritative decision-makers. Such decision-makers are the intended audience of our Framework and belong to a variety of fields. They may be corporate actors within a national or multinational company. They may be government officials designing water allocation plans or directly implementing a State-owned project. Finally, they may be members of a civil society organization or part of community leadership who are engaging with a company or a government to negotiate the terms of a future operation.

Though comprehensive in nature, the RRW Framework attempts to do something quite simple: empower industry actors, prior to implementation, to ask the right questions about how their proposed operations could impact human rights. As actors answer these questions, they can use the data they collect about how their industrial processes could impact human rights to proactively plan for mitigating human rights risks directly into their operational architecture.

## THE IMPORTANCE OF A QUESTIONS-BASED HUMAN RIGHTS IMPLEMENTATION STRATEGY

What is the impetus for us to take a look at human rights *implementation,* which is often a more difficult task, as opposed to, say, human rights accountability? From a legal standpoint, accountability emerges from situations that are *already* in decline. At best, lawyers attempt to recover losses or secure redress for any experienced harm. This strategy is costly, financially and

time-wise. From an environmental standpoint, it is also so much more expensive to restore than to protect, conserve, and maintain the resilience of a landscape. Human rights accountability often only moves actors forward inch-by-inch, to do the bare minimum enforceable by law.


Photo: Getty Images

Our framework instead attempts to build the preventive capacity of actors to avoid harm altogether, with the implicit assumption that actors will try to mitigate harm where they anticipate harm is likely or possible. Such an approach incentivizes operational ingenuity and ethical action. And, as companies determine best practices, this pushes others to act similarly.

The RRW Framework also responds to recent trends in various national courts, which are expanding the understanding of business enterprises' responsibility to respect and prevent, not just remedy, environmental and human rights impacts from business activities.[2] This evolving landscape makes it increasingly *inevitable* for business enterprises to formulate their operational assessments with a view to promoting human rights (see Annex B for more detail).

This strategy is a radical departure from any existing human rights approach, and it is desperately needed. Seminal works like *The Right to Water: From Concept to Implementation* (World Water Council 2006) and best practices documents like the *CEO Water Mandate's Guidance for Companies on Respecting the Human Rights to Water & Sanitation* or the ICMM's *Voluntary Principles on Security and Human Rights* stress the importance of conducting a proactive assessment of human rights risk. Yet, even though proactive human rights implementation is not a new theory, there does not yet exist a concrete strategy for conducting a contextualized risk assessment, much less a strategy that weaves the interrelatedness of all human rights in the process and substance of implementation of the human right to water.

Moreover, the challenge to existing implementation approaches is that they focus on checklists and indicators. They attempt to standardize specific elements of the human right to water across a vast range of operational types, contexts, and populations. Though a checklist of do's and don'ts may seem appealing, this method minimizes, underestimates, and insubstantially captures the complexity of human behavior. It dilutes human rights to a set of pre-established norms that do not take into account how rights manifest differently across contexts, nor how rights interact with other interdependent rights and cross-cutting obligations.

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[2] See, for example, *Milieudefensie v. Royal Dutch Shell,* Hague District Court Case No. C/09/571932, Judgment of 26 May 2021, full text at http://climatecasechart.com/climate-change-litigation/wp-content/uploads/sites/16/non-us-case-documents/2021/20210526_8918_judgment-2.pdf

Indeed, our research has shown that the implementation of human rights requires a deeply contextual approach.[3] Human rights implementation requires co-creation with local communities; it necessitates operational understanding of industries and locations.

In this paper, we flip the script. We start by asking the right questions, rather than trying to give the right answers. We strive to help operational decision makers understand the hydrological, social, cultural, and governance conditions across the theater of their operations. Ultimately, we hope to move future research, discussion, and water stewardship norms toward a preventative model, toward practices that are ethical, sustainable, and dignity-affirming.

## THE RRW FRAMEWORK INNOVATIONS

The RRW Framework deliberately pivots from an indicator-based strategy seeking to evaluate rights violation ex-post, towards a proactive open-ended model seeking to evaluate vulnerabilities ex-ante. This approach can strengthen many preexisting best practices and frameworks within the small but growing literature seeking to develop actionable guidelines to address water-related human rights in the context of water-intensive industries (Kemp et al. 2010, ICMM 2012a and 2017, The CEO Water Mandate 2015, Coumans 2017, AWS 2019, IRMA 2021). **Table 1** in **Annex C** describes how our Framework can contribute to these pre-existing efforts. Beyond this contribution, there are several other innovations to point out:

- Methodologically, the approach moves away from focusing on the narrow dimensions of water access and availability, which often lead to curtailed discussions focused on water as an economic resource.[4] It approaches the human right to water from a multi-disciplinary standpoint that incorporates hydrological, governance, and legal perspectives. This is reflected in the diverse expertise assembled in the research team, which includes faculty from the Schools of Law, Global Affairs, Business, and Engineering at the University of Notre Dame.
- The RRW Framework draws from a large pool of recent multi-disciplinary literature on water security that incorporates hydrological, ecological, economic, managerial, financial, social, cultural, philosophical, ethical, and other dimensions of water-human interactions.[5] Notably, scholarship on water security and governance rarely considers the human rights dimension of water explicitly. This paper bridges this gap by redirecting established methods from the water security and governance literatures toward assessing water-related human rights.

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[3] See, for example, Training Manual on Human Rights Monitoring (2001), Chapter 7; Social Institutions and International Human Rights Law Implementation: Every Organ of Society (2020), pp 1-20; and Public Policy in International Economic Law: The ICESCR in Trade, Finance, Investment (2015), Chapter 1.

[4] See, for example, the Global Water Partnership-Mediterranean (GWP-Med) and the Organisation for Economic Cooperation and Development (OECD)'s *Brief on Water and CSR*.

[5] See Crawley & Sinclair 2003, Hoekstra et al. 2011, Fuller & Jacobs 2015, Owen & Kemp 2015, Tuokuu et al. 2019, Cesar & Jhony 2020, and Selmier & Newenham-Kahindi 2021.

- Sectorally, our paper does not tailor itself to a particular corporate, hydroclimatic, or hydrosocial context. It offers an assessment that can be incorporated across diverse water conditions and contexts, as reflected in the illustrative case study in **Chapter 4**.
- Thematically, our framework moves beyond the responsibilities outlined in the UN Guiding Principles on Business and Human Rights to align itself with the current trajectory in European courts,[6] which links business actions with binding legal human rights obligations and calls for a proactive implementation of the human right to water.
- Finally, this is (to our knowledge) the first clear articulation of the legal implications of the human right to water in a water-intensive industrial context. In particular, the RRW Framework extends beyond the narrow dimensions of water access and availability to also include cross-cutting obligations (e.g, self-determination and non-discrimination) and inter-related rights (e.g., rights to health, healthy environment and livelihood).

## CAVEATS

This paper provides a high-level overview of the RRW Framework alongside an illustrative, anonymized example constructed from secondary information from real case studies. However, practical applications of the Framework will ideally be based on primary research. Local specificities will include the type of environmental impact (e.g., water extraction or disruption of river flow variability), the local geography (e.g., water scarcity or excess) and the local institutional context (e.g., level of privatization), among other factors. Similarly, the legal principles that we point to may be contingent on local jurisdictions.

Our framework also cannot be used to assert legal violations and associated liabilities. It focuses on evaluating (often ex ante) the potential for the human rights of water to be fulfilled (or not) in regard to the considered industrial operations. It stops short of determining whether specific legal statutes have been violated ex post, and whether such violations have been caused by specific actors. Such causal attributions are difficult due to the complex nature of most socio-environmental systems. A dedicated empirical strategy would be necessary, for instance, to attribute changes in stream water availability to dam reservoir operations and rule out the effect of changes in community land use and climate patterns that may occur independently throughout the basin. As such, while the current framework can be used as an information tool to characterize potential challenges to human rights, it cannot directly be used to retrospectively assert legal responsibilities to specific State and non-State entities and actors who wield either direct or indirect influence on water-intensive industries. This limitation is consistent with the Framework's focus on enabling preventative measures rather than tracking harm.

A third caveat concerns the distinctive and complementary nature of legal obligations versus ethical responsibilities. Our framework sets up the entire ecosystem of water-intensive industries, civil societies, populations, regulators, and the full constellation of those who operate in water-intensive spaces to have a shared understanding of the human right to water. However, this is by no means a ceiling on where water stewardship should stop. Companies should go beyond our

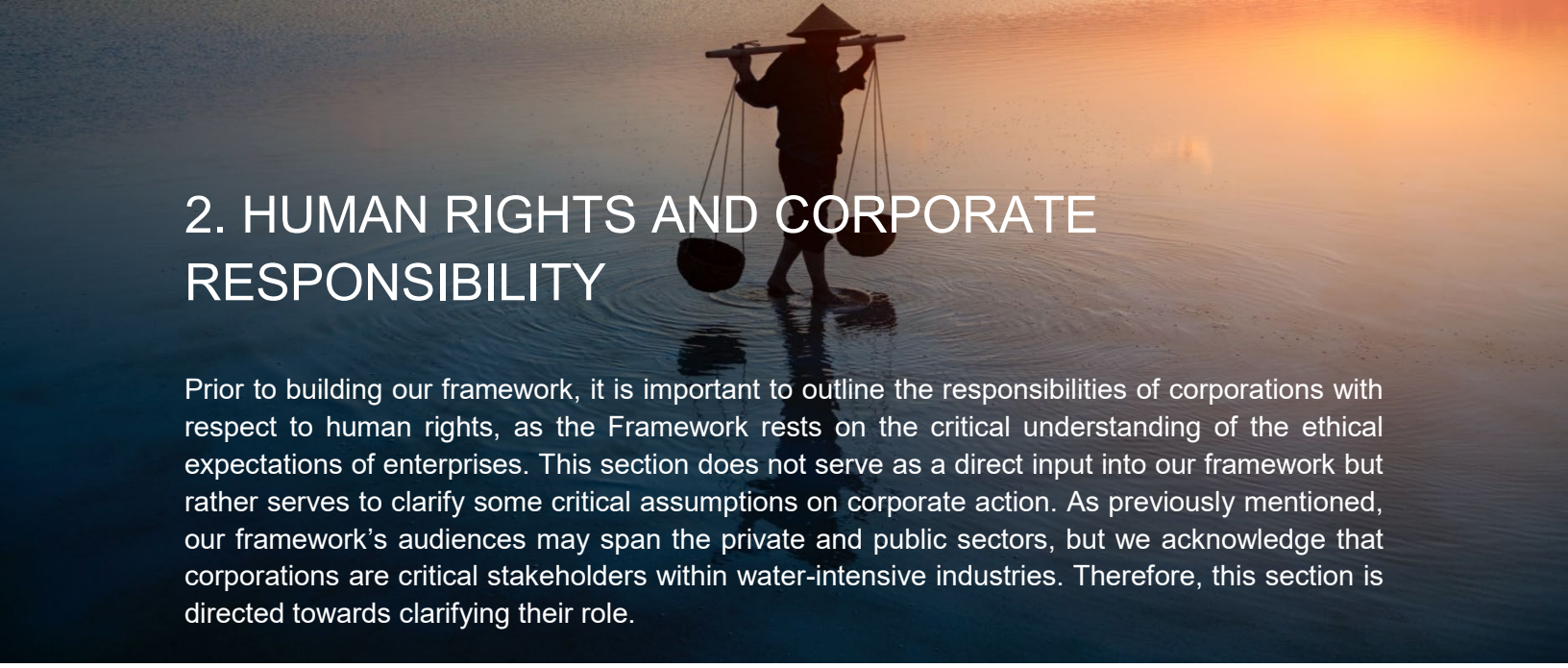
[6] See Annex B for more information.

framework, which they might see as their due diligence obligations with regard to the risk associated with the non-fulfillment of human rights. Business enterprises have the ethical responsibility to proactively *support* (not only *respect*) human rights, including the right to water and sanitation, particularly in areas of limited statehood (see Idumedia et al. 2020). This means taking additional voluntary action beyond risk mitigation to contribute to the realization of human rights as public goods (see Enderle 2021, 148-158, 193-199). “Such support can be provided through core business (such as innovating products and services), strategic social investment or philanthropy, public policy engagement or advocacy, or partnerships and other forms of collective action” (The CEO Water Mandate 2015, 13). It is up to the business enterprise itself to choose the type and scope of these voluntary actions, which will build on the actions taken to respect the right to water and sanitation. These voluntary actions might not be legally demanded (yet). However, as the experience of many voluntary business initiatives in the past has shown, such initiatives can turn into legal requirements in order to create a level playing field for all enterprises. Annex A B.3 lists many ways how the Sustainable Development Goal (SDG) 6 (Clean Water and Sanitation) might be operationalized by the States’ regulatory actions with far-reaching consequences for business enterprises. It is only good forward-thinking to take these developments into account in a timely fashion.

Finally, in the context of this paper, we focus specifically on the right to water by characterizing the multi-dimensional human rights implication of inadequate water security and water governance failure. In particular, we do not address the human right to sanitation specifically in our framework. This does not imply that the human right to sanitation is subordinate to the human right to water. A legal analysis of the multi-dimensional human rights implication of inadequate sanitation is an important outstanding discussion. Similarly, we do not discuss whether the natural environment, ecosystems, rivers, and lakes arguably hold “rights” in a sense analogous to human rights. Legal initiatives in this direction have been not more than incipient until now. It goes without saying that human responsibility for the natural environment can be expressed in other ethical terms as well, for example, the basic duty of doing no harm.

## PAPER ROADMAP

This paper starts in Section 2 by outlining the United Nations Guiding Principles on Business and Human Rights, which frame our understanding of the responsibilities of corporations with respect to human rights. Section 3 introduces the RRW Framework, starting with separate assessments of the potential hydrological and water governance impacts of water-intensive industrial operations in a given context. These two assessments act as inputs to the third component of the Framework that articulates the legal implication of the human right to water in the context of water-intensive industry. This legal component of the Framework uses factors of concern that emerge from the hydrological and governance assessments to generate key questions for implementers. Section 4 provides an illustrative case study that demonstrates, broadly, how to apply the Framework. Section 5 offers concluding reflections.



# 2. HUMAN RIGHTS AND CORPORATE RESPONSIBILITY

Prior to building our framework, it is important to outline the responsibilities of corporations with respect to human rights, as the Framework rests on the critical understanding of the ethical expectations of enterprises. This section does not serve as a direct input into our framework but rather serves to clarify some critical assumptions on corporate action. As previously mentioned, our framework's audiences may span the private and public sectors, but we acknowledge that corporations are critical stakeholders within water-intensive industries. Therefore, this section is directed towards clarifying their role.

The section first discusses the meaning and scope of human rights and their five foundational components. Then, it presents the ethical framework underpinning the notion of corporate responsibility, as detailed in the UN Guiding Principles on Business and Human Rights. It is from this ethical foundation and the outlined responsibilities of businesses with respect to human rights that our framework emerges to equip corporations, alongside States, with the ability to comprehensively fulfill their human rights responsibilities.

## MEANING AND SCOPE OF HUMAN RIGHTS

It is appropriate to briefly recall the meaning and scope of human rights as they were promulgated in the Universal Declaration of Human Rights in 1948 against the atrocious background of the Holocaust and thereafter codified in the International Covenant on Economic, Social and Cultural Rights and the International Covenant on Civil and Political Rights (both adopted by the UN General Assembly in 1966 and put in force in 1976). These three documents constitute the International Bill of Human Rights and contain 30 indivisible human rights, which are of existential importance for all human beings and express human dignity in concrete forms. The International Bill includes the right to an adequate standard of living, which comprises the right to safe drinking water and adequate food. Later on, the UN General Assembly and the Human Rights Council formally proclaimed "the right to water and sanitation" in 2010.

### DEFINITION OF A HUMAN RIGHT

Human right: a right to which all humans are entitled, without distinction of any kind, such as race, color, sex, language, religion, political or other opinion, national or social origin, property, birth or other status (Universal Declaration of Human Rights, Article 2). The United Nations General Assembly "recognizes the right to safe and clean drinking water and sanitation as a human right that is essential for the full enjoyment of life and all human rights" (adopted on 28 July 2010 through Resolution 64/292).

Not addressed in the International Bill of Human Rights was the relevance of water for the natural environment. However, this has changed with the increasing realization that humanity now lives in the "Anthropocene", the geological epoch during which human activity has been the dominant

influence on climate and the environment. In other words, human responsibility extends to the shaping of the natural environment – an enormous responsibility in itself – and, moreover, to the impact of the changing natural environment on human beings and the fulfillment of their rights. This same recognition motivated the decision of nearly all States (minus four abstentions) at the United Nations Human Rights Council to recognize, for the first time on 8 October 2021, a new international human right to a safe, clean, healthy, and sustainable environment that was already recognized in existing national laws in 155 States (United Nations Human Rights Council Resolution 2021).

## THE FIVE COMPONENTS OF HUMAN RIGHTS

For a clear understanding of human rights in the global and pluralistic context (see Enderle 2021, 113-158), we can look to philosophers Alan Gewirth (1984) and Henry Shue (1996) and the late John Ruggie, the "architect" of the UN Framework and Guiding Principles on Business and Human Rights (Ruggie 2013). Gewirth delineates five components of a claim-right:

- Component 1: the subject of the right,
- Component 2: the nature of the right,
- Component 3: the object of the right,
- Component 4: the respondent of the right, and
- Component 5: the justifying basis of the right.


**Figure 1: The five components of a claim-right**

As explained in Enderle (2021, 114-115), this distinction applies to human rights in general and helps to distinguish difficult from less difficult questions about human rights. It is also relevant for

the human right to water. With regard to the subject of these rights (component 1), a relatively large, worldwide consensus exists: All human beings without exception are subjects of these rights, including present and future generations. This focus on the subjects is important because all human beings possess these rights in virtue of their humanity, regardless of whether their rights are fulfilled or not. As for the objects of human rights (component 3), they consist of what is necessary for a life with dignity. Objects of human rights are inherently dependent on local socio-economic, socio-cultural and historical contexts but generally include civil, political, economic, social and cultural demands, including the demand for water. Specifying beyond these broad categories can prove challenging, however, as it is difficult to universally agree upon generalizable qualities when often these rights have to be defined more precisely according to the socio-economic and socio-cultural as well as historic contexts.

Reaching a consensus with regard to the other three components of human rights is much more challenging. In many situations, there are several or even multiple respondents (component 4) – for example, in a river basin with numerous mining facilities. A fair allocation of responsibility to all respondents can be extremely difficult. The UN Guiding Principles provide clear criteria to define the responsibility of business enterprises and the duty of States (see below), though the legal content of these responsibilities is currently changing (see Annex B). The nature of human rights (component 2) means that, as minimal requirements, human rights trump any other claims and do not allow for trade-offs. The nature of one's obligations to fulfill them, however, is often unclear (i.e., is one obligated to respect, protect, or promote them?). Finally, the justification of human rights, including the right to water (component 5), while sometimes debated in the public conversation, is supported by a worldwide consensus of States, incorporated in national and international legislation, and justifiable from different philosophical and religious perspectives.

The RRW Framework in this paper accounts for all components. It posits that component 1 (the subject of rights) includes all human beings. It explains why there are limitations to exploring component 4 (the respondents of human rights), but it specifically addresses component 3 (the object of rights), component 5 (the justification of these rights in a legal context), and to a lesser extent component 2 (the nature of human rights).

## CORPORATE RESPONSIBILITY

The UN Framework and Guiding Principles on Business and Human Rights (UN 2008, 2011, 2012) provide valuable guidance for so-called "corporate responsibility to respect human rights". According to the UN Guiding Principles, all business enterprises (large, medium and small) are "responsible to respect" all 30 human rights recognized in the International Bill of Human Rights and to "remedy" (along with the State) violated human rights. They bear this responsibility independently of the State. The Guiding Principle 13 defines three criteria of violation: *Causation*, *contribution*, and *direct linkages without contribution*, namely the criteria of direct and indirect impact and of complicity (see **Figure 2**).

## KEY DEFINITIONS

**Responsibility:** self-commitment originating from freedom in worldly relationships (Schulz 1972). Responsibility involves two poles of human action: the interior *commitment* of the person to act responsibly and his and her *engagement* in concrete relationships with other persons, communities, non-human beings and nature. In a similar ("analogous") way, corporations as corporate actors are understood in this paper as moral actors who bear moral (or ethical) responsibility: they have the capacity to commit themselves to what they should do and to bear the consequences for what they do (Enderle 2021, pp. 11-12).

With this deep understanding of corporate responsibility, business enterprises are motivated to engage in stakeholder dialogue with communities affected and to be potentially affected by water governance as well as with other businesses, governmental agencies and civil society organizations. This responsibility of the enterprise is bigger the more it contributes and the stronger its direct linkages are to the violation of the human right (in this case, the human right to water). The company has to engage in proactive collaboration with other actors and help establish collective action, which is necessary to establish the public good of securing the human right to water in situations that extend beyond the sphere of direct control of the company (see Enderle 2021, Chapter 14). In many cases, the State has to play a leading role and enact legal regulation, if not immediately, then certainly for the long run.

Beyond preventing, or seeking to influence the prevention of, these three criteria of violation, corporate management in its entirety has to undertake *human rights due diligence*; this means (a) to understand the human rights context of the countries, in which the corporation does or intends to do business, (b) to assess the corporation's own activities, and (c) to analyze the corporation's relationship with business and other entities (see UN 2012, ICMM 2012a).

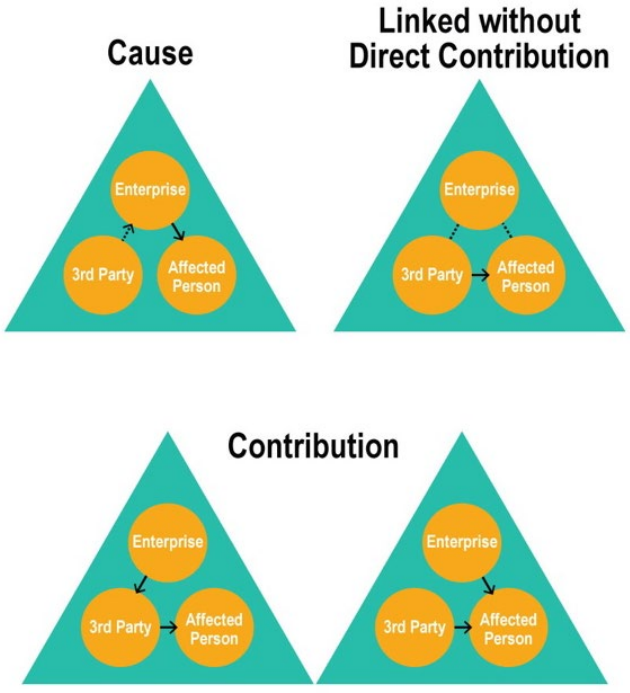



**Figure 2: The three criteria of human rights violations by business enterprises: Cause, contribution, and No contribution, but linkage (UN 2012, p. 16).**

It is important to note that "corporate responsibility" is clearly limited and does not extend "to the whole world." According to the UN Guiding Principles (2011), corporate responsibility does not extend beyond the three criteria listed above and does not include the *protection* of human rights against third parties (which is considered the "duty of the State"). And if human rights due diligence is decently done and human rights violations occur nevertheless, the UN Guiding Principles (2011) uphold that the business enterprise is not ethically responsible for these violations.

However, at this very moment, courts are reexamining the exact boundaries of corporate responsibility and State duty with regard to human rights. As noted in the Introduction and Annex B, recent legal, regulatory, and jurisprudential developments are now extending established understandings of legal responsibility towards more expansive standards focusing on business enterprises' *duties of care, prevention, and/or remedy* as part of heightened legal responsibilities set in certain specific jurisdictions. Recent court decisions are changing standards, insisting that businesses bear broader legal responsibilities.

The three criteria in **Figure 2** and the human rights due diligence requirement apply to the human right to water. The application is straightforward with regard to the sphere of direct control by an operational facility that deals with water: the facility is responsible for exercising *due diligence* and *not causing* the right's violation. Water quantity and quality can be measured, recorded and controlled by the facility in all four ways of treatment: input, processes, output and diversion (see Kemp 2010). While these treatments make up only a part of corporate responsibility, performing them properly is already an important step forward and demonstrates that the facility takes corporate responsibility for the right to water and sanitation seriously (see The CEO Water Mandate 2015).

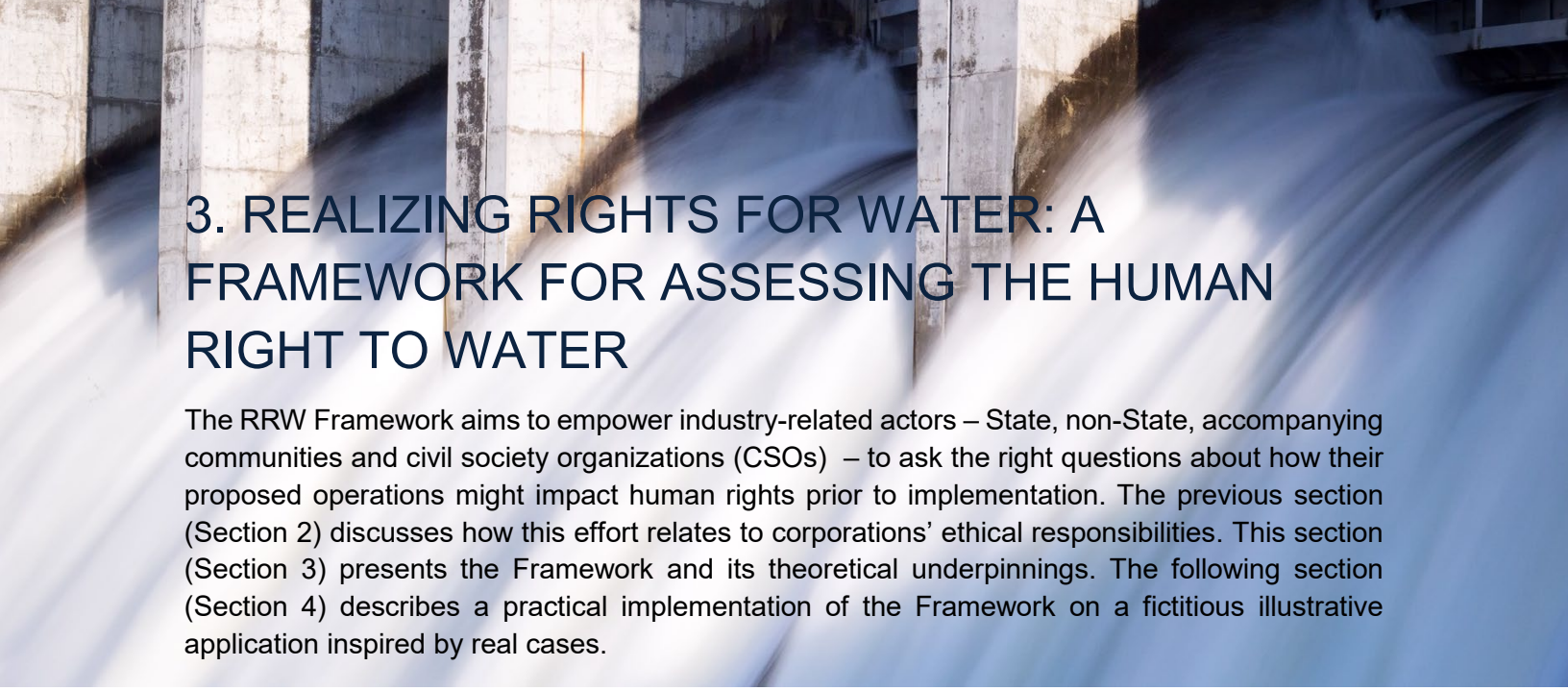
Beyond that sphere of direct control, the precise determination of corporate responsibility is more challenging. If the operational facilities (or the business enterprise) have an indirect hydrosocial impact, for instance through its supply chains, multiple actors are involved. In this situation, the criteria of *contribution* and *direct linkages without contribution* as well as the *human rights due diligence* requirement apply (see ICMM 2012a on human rights due diligence). On the basis of human rights due diligence, the kind and extent of contribution and direct linkages without contribution have to be identified. Moreover, the national and international legal framework has to be taken into account.

The following Sections 3.1, 3.2, and 3.3 begin to tackle this challenge by developing the RRW Framework to identify critical issues where the human right to water is at stake, along with many other interrelated and interdependent human rights. For example, the rights to life and to an adequate standard of living require clean and sufficient water for humans' survival, health and personal use. To fulfill the right to work in fishing, agriculture and other activities, sufficient quantities and appropriate qualities of water are needed. The right to water is also interrelated to the right of minorities, particularly of Indigenous Peoples, and to the right to take part in cultural life, including rituals and ceremonies. In short, the violation of the right to water entails the violation of many more rights with far-reaching consequences (see further elaboration from the legal viewpoint in Annex A).

Corporate responsibility in the ethical sense is comparatively less clear-cut. Ethical obligations call upon companies to move beyond the bare minimum of avoiding human rights violations to foster and protect the dignity of all human beings. Yet, unlike legal expectations, which are often clearly delineated, corporate responsibility has the potential to remain implicit and undefined by a general consensus. This is why frameworks like the UN Framework and Guiding Principles on

Business and Human Rights are all the more important to understand and uphold, as they can help businesses define their obligations.

This paper takes the stance that corporations hold ethical responsibility due to the fact that they consist of moral actors (see Box 2). It goes without saying that business enterprises and other actors have to comply not only with the letter but also with the spirit of the laws and regulations. Our framework provides a pathway for initiating this engagement. Though our framework in Section 3 arises from a legal foundation, it is compatible with ethics-based approaches. In conditions where the local law does not fully support or promulgate the right to water as outlined in this document, businesses can use the RRW Framework as a method for upholding their ethical responsibility in addition to any broader legal responsibility, even when such actions go beyond local expectations. They can also work with communities to continue to explore the nuances of the right to water in a given context and adapt the Framework accordingly. Such actions may, in turn, push regulation to advance so that *all* enterprises in that context can better fulfill their responsibilities with regard to the right to water.



# 3. REALIZING RIGHTS FOR WATER: A FRAMEWORK FOR ASSESSING THE HUMAN RIGHT TO WATER

The RRW Framework aims to empower industry-related actors – State, non-State, accompanying communities and civil society organizations (CSOs) – to ask the right questions about how their proposed operations might impact human rights prior to implementation. The previous section (Section 2) discusses how this effort relates to corporations' ethical responsibilities. This section (Section 3) presents the Framework and its theoretical underpinnings. The following section (Section 4) describes a practical implementation of the Framework on a fictitious illustrative application inspired by real cases.

In this section, we present the RRW Framework, which uniquely combines approaches from the often-siloed water security, governance, and legal perspectives on water systems. To unite such fields, the Framework unfolds in three parts.

**Part A** (in Section 3.1) interprets the relationship between the considered industrial project and the potentially affected communities in light of key dimensions of "water insecurity" and helps operators understand the potential hydrological disturbances associated with their projects and their effect on the water-related social, ecological and economic services relied upon by the communities.

**Part B** (Section 3.2) evaluates potential implications that the industrial project might have on water governance, under the paradigm of procedural justice. Indeed, a rights-based approach to water should not only ensure an adequate availability of water, but also an effective, transparent, participatory, and fair water governance and institutional environment. Parts A and B ultimately "flag" two types of context conditions that may be of concern if an operator were to implement a given industrial project.

**Part C** (Section 3.3) and the accompanying legal analysis in Annex A take those concerns and map them onto a legal assessment that determines their implications with regard to the human right to water. Informed by local jurisprudence, the legal assessment embraces the independent and interdependent natures of the human right to water by focusing on its prerequisite elements (i.e. characteristics specific to the human right to water), its cross cutting obligations (i.e., characteristics common to all human rights), and its inter-related rights (i.e., role of water in the fulfillment of other human rights).

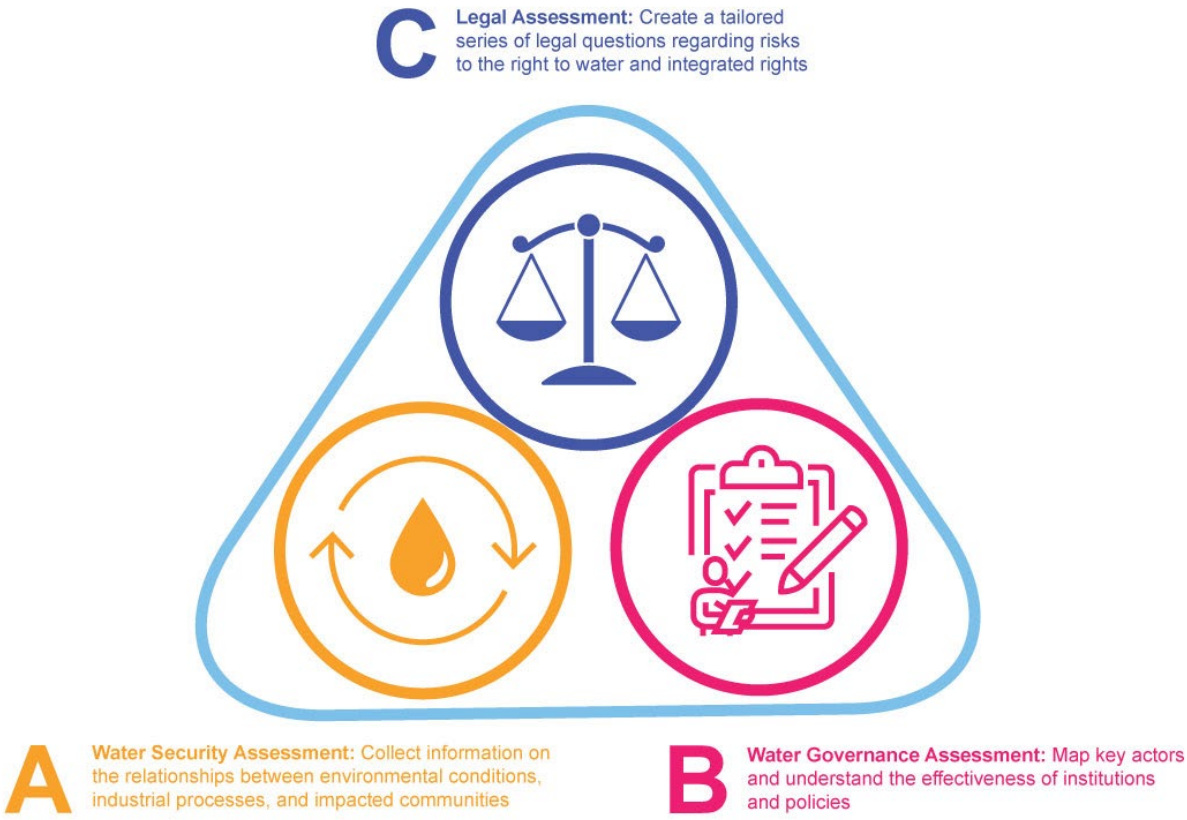



**Figure 3: The RRW Framework roadmap for implementing the human right to water. Note that Part C rests upon the scholarship generated in Parts A and B.**

## WHO SHOULD CONDUCT THIS ASSESSMENT?

The assessment requires a multi-disciplinary team with expertise commensurate to each of the three parts of the RRW Framework:

- **Water security analysis:** The water security analysis can be conducted by someone with expertise in hydrology (e.g., with background in civil or environmental engineering, or environmental earth sciences) and sufficient knowledge of water systems to confidently identify the key stakeholders that affect the hydrological system and/or depend on them.
- **Governance analysis:** The governance analysis can be conducted by someone skilled in qualitative and community engagement methods such as face-to-face interviews, focus group discussions, and document analysis. Appropriate backgrounds include human geography, sociology, anthropology, economics or environmental social science)
- **Legal analysis:** The legal analysis can be conducted by someone who has an appropriate level of background in business, environmental, and human rights law.

Several of these skills might be available in-house. A company or State engineer can conduct the water security analysis. Someone located within a department dedicated to community engagement, community development, stakeholder engagement, corporate social responsibility,

or indigenous affairs where applicable could conduct the governance analysis. An entity's general legal counsel, especially one tasked with improving compliance and driving corporate responsibility, may take on the legal analysis. There is always the option for interested parties to outsource these roles as well, particularly in cases where a company or CSO may only have partial expertise. Outsourcing may even be a best practice to ensure objectivity and transparency of the analysis.


## 3.1 DIAGNOSING WATER SECURITY CHALLENGES

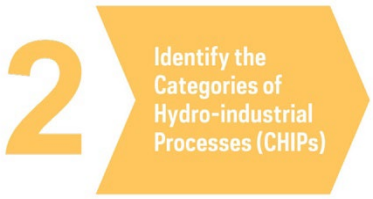
Part A diagnoses key water security challenges associated with inadequate access to water of sufficient quality. These criteria form a transferable framework to systematically sketch a unique profile of water insecurity (whether scarcity or excess) that prevails in each particular context. The assessment builds both on the established paradigms of green and blue water (see Mekonnen and Hoekstra 2011) and virtual water (see Hoekstra and Hung 2002), and on emerging paradigms of economic water scarcity and hydrosocial cycles (see Rosa et al. 2020; Linton and Budds 2014). For the first time, these paradigms are assembled into a consistent evaluation framework focusing on key categories of water (in)security that we believe are particularly salient for the fulfillment of human rights. The diagnosis of water security challenges involves the following five steps:


**Figure 4: Steps to diagnosing water security challenges**


The first step involves listing the stakeholders and communities who could be affected by the water-intensive activities. We call these the Stakeholder Impact Categories (SICs).

SICs are sets of stakeholders whose hydrologic connections to the considered industrial process are comparable. For instance, the operation of an upstream dam might have a comparable impact on water security for several communities along the river, but its impact might be different for communities along a lake that is fed by that river. In that particular example, there are two relevant SICs -- one for river communities and one for lake communities. However, if the communities along the river belong to two distinct groups that use the water in different ways -- or if they switch seasonally from one practice to the other -- the situation should be described as distinct SICs. For example, if communities along the river switch seasonally between flood recession agriculture and fishery, they should be described as two SICs. In that second example, a given stakeholder would

simultaneously belong to two SICs (flood recession agriculturalist or fisherfolk), depending on the season.




The second step enumerates the distinct ways in which the considered industrial operation can impact the hydrological system shared with the previously identified SICs throughout the life cycle of the industry. We call these Categories of Hydro-industrial Processes (CHIPs).

A given industrial project might have several distinct CHIPs that can either arise simultaneously or at different stages of its life cycle. For example, Lithium mining operations evaporate brine to recover the mineral and use fresh water to refine it: the two processes have different local hydrologic impacts and would qualify as two distinct CHIPs. As an example of how different CHIPs associated with a given operation can arise at different life cycle stages, consider that the hydrologic impact of the (punctual) act of filling a newly-built dam can be very different from that of the (continuous) act of operating it over its service life. Similarly, a given project might have different relevant CHIPs for different seasons: the downstream effect of dam operations can be different during the wet and dry seasons, for instance if the dam is used for both flood abatement and irrigation water storage. The second step of the analysis is therefore to identify all the different CHIPs that are relevant for the considered watershed or industrial operation, including distinct CHIPs for hydrological processes that have varying impacts depending on the temporal and seasonal context.


The third step is to construct a table with one CHIP per row and one SIC per column and populate it with categories of water insecurity (CWI).

The CHIP/SIC table should also contain an additional row representing the baseline water security profile of each SIC *without* the CHIPs (ie, a counterfactual). If the Framework is being used to evaluate a planned project before it is implemented, the baseline scenario can be characterized using direct observations (i.e. accuracy levels 3 and 4 described below). However, if the project has already begun and/or if there are some CHIPs already in place, then the baseline counterfactual will represent an alternative scenario where there are no CHIPs. This scenario is fictitious (because the CHIPs, in fact, exist), its water security cannot be ascertained through direct observation. Instead, the analyst must provide their best estimate, often based on models (accuracy level 2) or based on the SICs' water security profile before the CHIPS (accuracy level 1). As such, the baseline profile should be interpreted as a benchmark against which to evaluate changes in water security associated with each CHIP. With few exceptions (such as randomized controlled trials or natural experiments), the baseline profile does *not* represent a statistically sound quantitative counterfactual to establish -- or rule out -- causal relationships between specific CHIPs and the water security challenges faced by SICs. Because of this, the assessment can generally not be used to assert legal responsibilities, unless specific primary data is collected.

Acknowledging the multi-dimensional nature of water security, the Framework differentiates between multiple Categories of Water Insecurity (CWI) that characterize the relationships between CHIPs and SICs. For each CWI, the water insecurity affecting the SIC can either be expressed as scarcity (e.g., drought) or excess (e.g., flood), both of which can either be amplified or dampened by the CHIP. The effects are evaluated qualitatively along five categories representing distinct water security issues, listed below.

## CATEGORIES OF WATER INSECURITY (CWI)

**Green** water insecurity arises in cases of insufficient or excessive rainfall. Green-water ***scarcity*** refers to the situation where rainfall is insufficient to practice rain-fed agriculture, and where blue water (from lakes, rivers or groundwater) must then be relied upon to meet residual crop water demand through irrigation. Green water ***excess*** generally refers to rain-related flooding. This can arise, for instance, if CHIPs are linked to changing rain patterns or landscape modifications (such as increased impervious surfaces) that interfere with the natural drainage and infiltration mechanisms of a catchment.

**Blue** water insecurity arises in cases of insufficient or excessive blue water, that is water stored in streams, lakes, aquifers or water infrastructure. Blue water ***scarcity*** designates situations where blue water of sufficient quality is not available to sustainably meet the SICs' need for irrigation, local industry or water supply. By "sustainably", we mean that the use of water to satisfy that need can be sustained indefinitely (e.g., by not affecting the long-term average level of the corresponding reservoir). Unlike green water, blue water is mobile and therefore has an associated opportunity cost (if some stakeholders do not use the water, other stakeholders might). Therefore, blue water scarcity is indicative of water competition with other stakeholders that share the same natural or man-made reservoir. Note that blue water scarcity relates to the availability of blue water and not the SIC's ability to access it, which is addressed by the concept of economic water insecurity. Blue water ***excess*** designates situations where excess blue water prevents the stakeholder from functioning; this can happen, for example, in situations where hydrologic alterations (e.g., storage and releases by upstream dams) renders a river prone to overflow and periodic flooding.

**Economic** water insecurity emerges if blue water is necessary (green water is scarce) and sufficient (i.e. blue water is not scarce), but the appropriate infrastructure is missing to access it. Economic water insecurity often emerges in situations where infrastructure investments have been lacking and therefore indicates the potential for water scarcity to be alleviated by an influx of capital (e.g., from the considered industry). It can also emerge if a technical solution is available to mitigate green- or blue-water flooding but is not available to the SICs for lack of funding or some other reason.

**Virtual** water insecurity arises in cases where local water scarcity (whether green, blue or economic) cannot be substituted by trade imports. Indeed, the import of "virtual" water as food produced in a water-abundant region outside of the basin might alleviate the need for using local blue water to produce food. Virtual water insecurity then emerges when trade barriers, or more likely the absence of cash or credit, prevent this process from taking place. It is a symptom of a community's isolation, whether physical or caused by isolationist policies or lack of access to credit. Note that virtual water insecurity is always described in terms of scarcity (assuming that there is no such thing as excessive access to markets), but can be caused by excessive physical water (e.g., a flood cuts a community's access to market).

**Cultural** water insecurity emerges if **scarce** or **excessive** water prevents a community's hydro-social relations, that is a community's cultural or spiritual relationship to water or associated activities and services, from being sustained. Cultural water insecurity is independent from the previous dimensions and might emerge even if the physical or virtual needs for water are being met. It might occur, for instance, if a community that ascribes strong cultural value to local food production is forced to import food to satisfy their need. It might also emerge if (possibly informal) institutions associated with traditional water uses (e.g. women groups) are threatened, or if water from a substitute source has different characteristics (e.g., a different taste) than the traditional water source. Lastly, the concept of cultural water insecurity also extends to situations where the CHIP's impact on the hydrologic system threatens a SIC's ability to carry out culturally or spiritually significant activities, as might for example happen if religious sites are flooded by the filling of a dam.

## 4 Determine the level of accuracy for each assessment

Depending on the life cycle stage of the CHIP at the time of the assess ment, information might be missing to evaluate one or more categories of water insecurity *ex post*. For example, the water insecurity associated with the routine operation of a recently built hydroelectric reservoir might not be empirically observable (although the water insecurity associated with its filling might). To address this issue, we water insecurity, CHIP and SIC. **Level 4**, the most accurate, designates an assessment based on primary empirical data that is collected *in situ* by the assessment team. **Level 3** designates an assessment based on peer-reviewed secondary literature that is itself based on empirical observations. **Level 2** designates an assessment based on model simulations that are either carried out by the assessment team or obtained from the peer-reviewed literature. **Level 1** applies to situations where primary data or peer-reviewed secondary research is not available. In this case the assessment either relies on non-peer-reviewed secondary sources or on the expert assessment of the assessment team based on documented comparable contexts. Level 1 effectively designates situations of research gaps and represents the lowest level of certainty of the assessment framework.

## 5 Write an accompanying interpretation of the water security implications

The last step consists in the development of a textual narrative that provides the contextual information necessary to interpret the assessment from the four previous steps. Among other topics, the narrative text should articulate the assumptions and describe the source materials used to establish and populate the assessment table with reference to the Levels of accuracy from Step 4. It should discuss and justify the identification and grouping of stakeholders and processes into SICs and CHIPs and how this categorization might evolve over the life cycle of the project. It should also provide background contextual information in support of the CWI that have been identified or excluded in the assessment. Finally, the narrative could also flag major opportunities for promoting the right to water and major risks. This translation step is critical in order to explain the significance of findings and pinpoint where the legal team should focus their attention.


## 3.2 DIAGNOSING WATER GOVERNANCE CHALLENGES

Effective institutions for managing water use and allocation are critical to protect and fulfill the human right to water. This is particularly true if water is limited and/or if power is unevenly distributed, as might arise in the context of water-intensive industries. Multiple sectors often compete for the same water resources. Multiple State and non-State institutions also govern different dimensions of water use (agriculture, energy, mining, drinking, manufacturing, etc). Effective coordination is needed across the multiple water-use sectors and among governance and management institutions to avoid potential conflicts over water and human rights violations. The premise of this framework is that a rights-based approach to water use in a water-intensive industry does not only require that all the above dimensions of water insecurity are addressed, but also hinges on an effective, transparent, participatory and fair water governance and institutional environment. The introduction of a new hydrological process, particularly one implemented by a State, may still threaten the human right to water through governance failures even if different dimensions of water insecurity either remain unchanged or are mitigated. Given this, the Part B of the RRW Framework identifies instances of governance failure in order to predict potential governance weaknesses with respect to the right to water.

### DEFINITION OF GOVERNANCE FAILURE

Governance failure: governance ineffectiveness and resulting consequences that result from weak institutions, poor coordination across sectors, unfair actor influence/control and power relations, and inequitable decision making.

We use a set of sequenced questions to determine the extent of governance failure and institutional weaknesses that have implications for the human right to water. There are numerous existing principles and indicators of water governance and its effectiveness. The United Nations Development Program, for example, outlines four indicators for assessing water governance in any context: social, economic, political, and environmental (UNDP 2016). According to the Global Water Partnership, effective water governance is, among other key features, open and transparent, inclusive, coherent, equitable and ethical, efficient, and responsible and sustainable (Rogers and Hall 2003). Effective water governance also enables more integrated decision-making across different sectors dependent on water, a framework known in academic and policy circles as Integrated Water Resources Management (IWRM). IWRM is thus a water governance process that is well coordinated and planned in tandem with land and related resources in order to maximize the economic and social welfare of society without compromising ecosystems (GWP 2000; Biswas 2008). The Organization for Economic Co-operation and Development outlines about 12 principles of effective water governance, including transparency, capacity, and effective monitoring and evaluation. However, we focus on 4 broad qualities of governance that draw from both the academic literature and frameworks put forward by global organizations interested in water governance. The four qualities map onto our analysis of human rights by providing a basic

framework to analyze how water rights issues are tied to broader human rights violations. These 4 broad qualities are:

- Power asymmetries
- Participation
- Transparency and accountability, and
- Threats to hydrosocial (livelihood, cultural, religious) relations

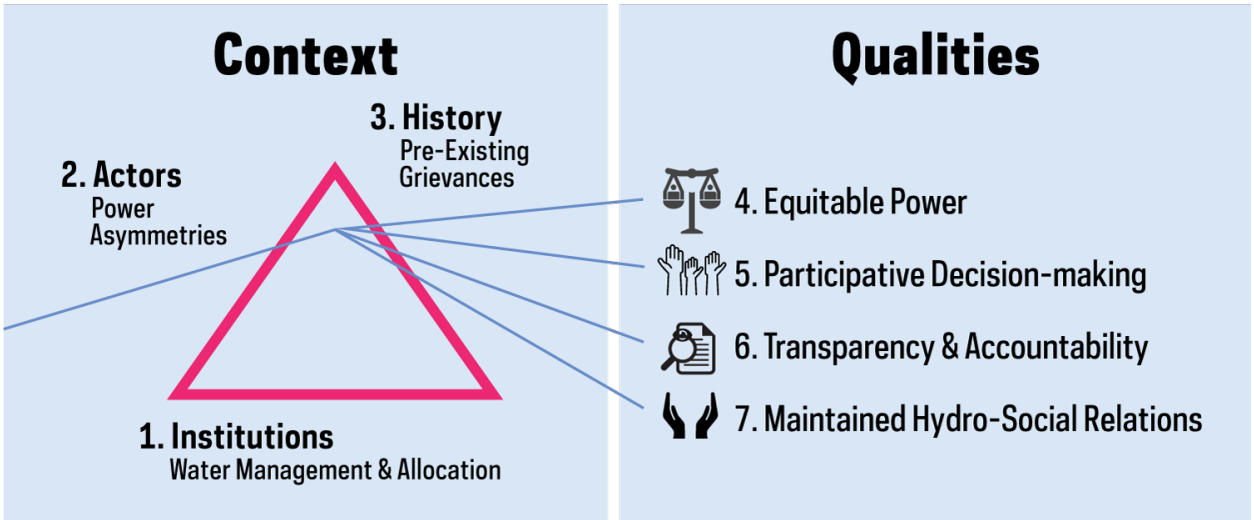



**Figure 5: The four broad qualities of governance are analyzed by looking at institutions, actors, and history.**

To systematically identify these features -- or diagnose their absence -- in a specific context, our governance assessment approach consists of seven steps. The first three establish the context by identifying the key actors, institutional dynamics and historical background. These elements then serve as a prism to evaluate the governance qualities of interest in the last four steps.

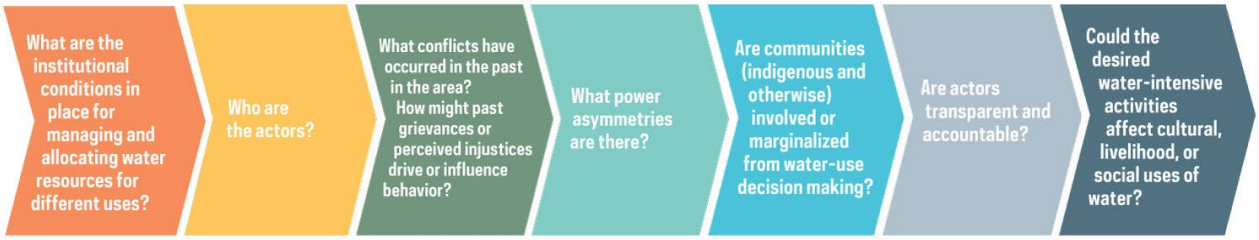
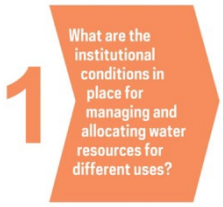



**Figure 6: Steps to diagnosing water governance challenges**




**Institutions:** Water use in water-intensive industries is situated in particular water policy regimes. Whether water is viewed largely as a public or private good determines how it is allocated across multiple sectors. Viewing water as private versus public also underpins which uses are prioritized and which water rights are protected. In Chile, for example, water management is entirely private, which has direct implications for how water is allocated and how water rights are protected in competing and conflict situations. In other cases, water may be viewed strictly as a public good whose management is vested in either the State or primarily in water-use communities.

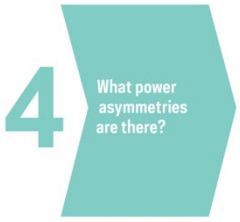
For each case, one must ask, *what are the institutional conditions in place for managing and allocating water resources for different uses?* Is there a reference to an official national water policy/or document that explicitly identifies a particular water-intensive industry as a potential threat to water quantity and quality and provides clear guidelines on how to safeguard water for local communities? Is water managed centrally by the State or decentralized to sub-national institutions? Are any aspects of water use (drinking, etc.) recognized nationally as human rights?


**Actors:** Water governance is influenced by a variety of actors including the State, corporate, government bodies, indigenous groups, local communities, NGOs and private sector entities. We first set out to identify these actors. We ask, *who are the major/most influential actors in water governance and who are the least influential actors in water governance (is there evidence of equitable/participatory decision-making involving communities)? What are their interests and motivations?*

This step can start with the groups categorized into the SICs during the water insecurity assessment (Part A). The assessment should take care to separate out any communities that may have been grouped together into an SIC, as many groups may coexist in the same spatial location. This step also should explore those in positions of power who influence water adequacy, multidimensionality, and sustainability (see reflections on these categories in the following legal analysis).


**History:** It is important to remember that for any water-intensive activities, new economic interventions are not taking place in a vacuum. New actors are entering the playing field, so to speak, in the middle of the game. It is crucial to know not only who the players are but what the score is. We ask, *how might historical grievances influence current water management tactics, inform current governance structures, and drive actor behavior?* What historic conflicts, documented violations, or perceived injustices are simmering just under the surface? These may be visible to the casual observer or appear dormant. They may have nothing to do with the water-intensive activities proposed. They may be conflicts involving the State or foreign actors, or local stakeholders. They may be mere personal conflicts that one might be tempted to dismiss as minor and unimportant. An old conflict, seemingly resolved or irrelevant to the casual observer, can quickly resurface and entangle new proposed intervention in the area

where precious water resources are in play. It is important to be intentional in pinpointing any evolution of grievances in order to understand the motivations underlying current relationships between actors and the formation of different governance structures.




**Power asymmetries:** Keeping the historical and institutional context in mind, the inquirer should categorize the identified actors and their relationships pertaining to water by answering the following questions. Which actors appear to have the most powerful control over how water resources are managed and allocated? What are the specific responsibilities of each actor? What strategies are actors using to control water allocation and use? There may be instances where a water-intensive industry takes over/controls a public water supply system or the regulatory institution in charge. In other cases, community water systems can be privatized/sold out to a company.

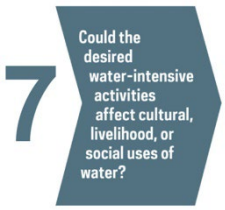
Power asymmetries can also emerge in association with the physical location of the actor along the waterway, so our assessment will also characterize the hydro-strategic context of each case. For example, upstream-downstream relationships can have diverse (and sometimes contrasting) effects on who is affected and who has the power to exert change, depending on the specific water issue that is at stake (e.g., pollution, depletion, flooding, etc). Similarly, local conflicts might have broader implications, as the movement of water and people across the landscape might displace local water issues (again, whether pollution, depletion or flooding). These issues associated with impact displacement and upstream/downstream asymmetries are exacerbated for transboundary rivers, where different actors might operate in distinct governance, policy and regulatory regimes. Such spatial mismatch between regulatory regimes and watershed boundaries should be identified in the assessment.


**Participation:** We look for evidence of participatory/inclusive/decentralized water management. *To what extent are communities (indigenous and otherwise) involved or marginalized from water-use decision-making?* Is there any evidence of active participation by communities?

In different water-intensive contexts, communities may either passively participate or be active decision-makers over water use. Although water-intensive operations may be spatially local, decision-making on water use is often centralized in national offices, creating a tendency to ignore local communities in decision-making. Effective governance recognizes the importance of community participation, but also acknowledges that decentralizing decision-making does not necessarily guarantee equitable participation. Indicators of active community participation may include organized water committees, community boards, and public-private partnerships with clear platforms for communities to actively participate. Evidence of participatory governance also involves valuing and incorporating indigenous knowledge into water management.


**Transparency and Accountability:** We explore the extent to which actors implementing water-intensive activities are transparent and accountable in their actions. We ask, *what accountability arrangements exist to deal with water rights and allocation violations?* For each context, how is the water-intensive company dealing with water quality and use violations? Are there mechanisms such as fines, penalties, rules, etc. in place to address violations? If so, which actors are responsible for enforcement?

A core ingredient of accountability is trust on the part of weaker actors (in most cases the water-intensive community in question). Are references made to lack of trust by communities over efforts to resolve violations? Is there evidence of transparent disclosure of water use, water pollution, or threats to water rights? Are communities aware of their own assets?




**Hydrosocial relations:** Water-intensive industries can fundamentally change human-water relations and livelihoods, particularly through disregard for the cultural and religious significance that communities attach to their water resources. In many indigenous communities, for example, the importance of water extends beyond its use for drinking, cleaning, and agriculture to less quantifiable uses tied to spirituality and culture. This framework asks, *how might water-intensive activities in question fundamentally affect non-tangible water needs in communities?* In doing so, we pay particular attention to (i) cultural rights and protection, (ii) indigenous water rights and equity issues. We determine the extent to which these dimensions are monitored (i.e. they can be intangible and challenging to quantify) and incorporated into the negotiation and adjudication of water rights.

## A NOTE ON THE GOVERNANCE ASSESSMENT APPROACH

It is important for the governance assessment to be structured as a set of questions, as the inquiry is nuanced and context-specific. Some elements may matter in one context but not in another. Therefore, it is better to have questions than indicators or a set list of governance aspects to check. Some of the answers to these questions will often not be quantifiable, but they should contribute to a holistic understanding of key governance failures in any context. Community participants in the governance assessment should be selected carefully to ensure an adequate sample size and fair representation of different groups.

Many of the steps in the governance assessment can be taken simultaneously and inform each other. Secondary research, for example, may lead to primary data collection which may then change how the secondary sources are viewed. Follow up inquiries may be helpful as new information comes to light. In addition, the governance inquiry often flows logically into a legal inquiry. However, the legal inquiry will not always comprehensively answer all the questions raised in the governance inquiry. The fact of an action being legal does not in and of itself nullify the political, security, and human rights problems that may arise. An action being legal may, in

some circumstances, even exacerbate the issue from a security perspective if there is no legal recourse for a perceived injustice. Suggested strategies:

**Make sure to talk with women.** In some contexts, men will play the forward-facing role to any external actors, both in government and in private sector or community organizations. They will likely have a genuine intention of representing the interests of the entire community, speaking on behalf of men and women. It is nonetheless important to find polite ways to also secure women's perspectives separately. They can speak both to issues that affect women uniquely as women as well as other members of the family such as children or the elderly, offering a different perspective on how issues surrounding water will affect the community at large.

**Do not raise expectations.** When explaining the purpose of your inquiries, people will naturally begin to assess what this might mean for their interests and that of their constituents/community. They may see a possible opportunity. It is important not to unduly raise expectations that cannot later be met. This is important both from a Do No Harm perspective and from a Risk Mitigation perspective.

**Triangulate.** Make sure that you are hearing multiple perspectives, and validating information from numerous sources. Think about the interests of each of these sources and make sure you are hearing from sources who may have divergent interests.

**Look out for nonverbal communication.** Short answers by respondents or key informants may indicate discomfort with the questions or process. Answers that seem to repeat your wording may indicate that the respondent is telling you what he or she thinks you want to hear. Speaking with someone in the presence of others, particularly someone with greater power, may discourage them from speaking freely. Keep in mind how power asymmetries affect the information-gathering process itself, including the power you are perceived to have. It is important to recall that what remains unsaid is as important as what is said.

**Know who you are talking to.** A bit of background research about key informants before conducting interviews where possible, is essential to being able to interpret their answers, read between the lines, and ask effective follow-up questions.

**Do not dismiss perceptions in favor of facts.** In this process, the fact of a perception is as important as a fact itself. For example, if government authorities have compensated a local community for a past grievance, but the perceptions of a significant portion of the community do not recognize this compensation, that perception is as important as the government's attempt to provide compensation. Both are true and relevant to an overall understanding of the context.

**Respect confidentiality, but do not overpromise.** A person may ask to speak off the record if the topic is sensitive. Make sure that you communicate to them clearly exactly what you can and cannot do in terms of honoring this request and protecting the identity of respondents. This may vary from case to case.

**TABLE 1: GOVERNANCE ASSESSMENT RESOURCE GUIDE**

| QUESTIONS: | SUGGESTED SOURCES: | STAKEHOLDERS AND ACTORS: |
|---|---|---|
| What are the institutional conditions in place for managing and allocating water resources for different uses?<br><br>Who are the actors? What power do they have? What power asymmetries are there?<br><br>Are communities (indigenous and otherwise) involved or marginalized from water-use decision-making?<br><br>Are actors transparent and accountable?<br><br>Could the desired water-intensive activities affect cultural, livelihood, or social uses of water?<br><br>What conflicts have occurred in the past in the area? How might past grievances or perceived injustices drive or influence behavior? | **PRIMARY SOURCES**<br>**Key Informant Interviews:** The *best* approach to gathering information on the six key questions is to directly engage knowledgeable individuals from different stakeholder groups in a one-on-one setting. This allows you to gather up-to-date, nuanced, detailed information from a variety of perspectives in a private setting.<br>**Focus groups with stakeholders**: Group settings allow for the collection of information from knowledgeable sources at the same time. They also instigate connections of ideas in real time between participants and allow for some immediate validation of opinions among the group.<br>**Surveys:** Surveys allow for the widest possible pool of respondents and allow for the collection of quantifiable primary data. They can help paint a picture of widely held views or consensuses or important differences in opinions.<br><br>**SECONDARY SOURCES**<br>**Policy and programming documents:** These documents provide relevant and detailed information about existing regulatory, legal, or political parameters. They also reveal what some major actors are doing or intend to do within the context.<br>**Academic literature:** Peer-reviewed and grey literature can provide the most rigorous, in-depth source of information available outside of interviews. They often can be the least biased, though this may not always be the case.<br>**Media reports:** Media reports can indicate the relevancy of events and how different stakeholders might perceive those events. | National, regional, and local government authorities<br><br>Major economic/finance actors such as companies or development banks, especially those who conduct or influence water-intensive activities or would be affected by water-intensive activities<br><br>Informal or formal local community leaders<br><br>Community members, including relevant vulnerable groups (e.g. women, indigenous groups, religious or ethnic minority groups, etc.)<br><br>Civil society organizations (e.g., trade unions, business associations, religious communities, student groups)<br><br>Local human rights activists or advocates<br><br>Local journalists<br><br>International NGOs with experience in the area<br><br>Local NGOs<br><br>Relevant local, national, international academics |


## 3.3 BUILDING THE LEGAL ASSESSMENT

Part C now bridges the outcomes of the water security and governance diagnostic approaches in Parts A and B to create a legal assessment that can be used to assess the relationship between any set of water-intensive activities and the human right to water.

The assessment builds from a clear articulation of what constitutes the right to water, as is extensively documented in the accompanying Annex A. In summary, the human right to water is both an independent right, as well as an interdependent right that should be understood in a multidimensional and intersectional manner with all other human rights. There are three "requisite," or necessary, elements that must be put into conversation with cross-cutting human rights obligations and interrelated rights. In other words, we ask the following broad question on the identified potential impact of the considered industrial processes (CHIPs) on the considered communities (SICs):

*Are the requisite elements of human rights to water satisfied, while respecting cross cutting obligations as well as inter-related rights?*

We ask this question for both the categories of water insecurity impacts identified in Part A and for the potential water governance challenge identified in Part B. The final product is a series of questions organized in tables, one for all governance concerns and one per water security concern raised.

**Requisite Elements**

Adequacy (AAAQ)
Multi-dimensionality
Sustainability

**Cross Cutting Obligations**

Equal Enjoyment
Non-discrimination
Self Determination
Free Disposition
Non deprivation

**Inter-Related Rights**

Health
Healthy Environment
Standard of Living
Work
Indigenous peoples' rights, etc.

**Figure 7: The right to water consists of requisite elements that must be assessed against cross-cutting obligations and put into conversation with interrelated rights.**

### AN OVERVIEW OF THE LEGAL ASSESSMENT ELEMENTS

The right to water has three requisite qualities: adequacy, multidimensionality, and sustainability.

1. **Adequacy:** the availability, quality, and accessibility of water
2. **Multidimensionality:** water as a social good; water as a cultural good

3. **Sustainability:** the protection and preservation of intergenerational rights and interests; non-retrogression[7] of rights (no rights can be rolled back once given)

When analyzing any of these three qualities, one must first determine whether they satisfy the threshold of **cross-cutting human rights obligations**, which are as follows:

I. **Self-determination**: the free determination of political status and the free pursuit of economic, social, and cultural development
II. **Non-Discrimination:** the prohibition against differential treatment based on a prohibited ground, with discriminatory intent, that impairs the enjoyment of a human right
III. **Free disposal of natural resources:** the right to own and control natural resources
IV. **Non-deprivation of means of subsistence:** the right of a people not to be deprived of the baseline conditions needed for survival
V. **Equal enjoyment of rights:** the right to equal enjoyment by all men and women of all civil, political, economic, social and cultural rights set forth in the International Covenant on Civil and Political Rights (ICCPR) and the International Covenant on Economic, Social, and Cultural Rights (ICESCR)

From here, one can then analyze a) the extent to which the state of these elements are realized and b) the extent to which the realization of these elements comply with **interrelated rights**. For example, managing water quality may also impact the right to health, the right to a healthy environment, and the right to benefits of scientific progress and applications.

Unlike the water and governance assessments, the legal assessment should not be perceived as consisting of "steps." Instead, it is better to perceive it as three elements of water that all must comply with cross-cutting human rights obligations and be balanced with other interrelated rights. An analysis of this compliance and balance requires a full picture of the entire spectrum of rights and obligations statuses prior to making a judgment on which aspects of water security or governance should be flagged.

## THE ASSESSMENT IN PRACTICE

In practice, the assessment consists of a set of specific inquiries applied for each type of concern (governance and security). These inquiries are summarized in Tables 2 and 3, where they are organized around the three tiers of our proposed legal analysis, and an illustrative example of their implementation is presented in Section 4 below. These inquiries are underpinned by substantial jurisprudence that is discussed in an extended legal study in Annex A.

[7] Through non-retrogression, sustainability is a quality that underpins all economic, social and cultural rights. It ensures the prevention of the deterioration of existing protections that is called for in the International Covenant on Economic, Social and Cultural Rights (ICESCR) across *all* rights.

**TABLE 2: WATER INSECURITY ANALYTICAL AND LEGAL MATRIX**

| | **ADEQUACY** | **MULTIDIMENSIONALITY** | **SUSTAINABILITY** |
|---|---|---|---|
| | Availability of Water<br><br>Water Quality<br><br>Accessibility of Water | Water as a Social Good<br><br>Water as a Cultural Good | Protection and Preservation of Intergenerational Rights and Interests<br><br>Non-Retrogression Obligation |
| **A. Does proposed water curtailment action or plan satisfy the State's Cross-Cutting Obligations?**<br><br>1. Right to Self-Determination<br>2. Non-Discrimination<br>3. Free disposition of natural resources<br>4. Non-deprivation of subsistence means<br>5. Right to equal enjoyment of human rights | How does the water curtailment action or plan address adequacy of water without violating any of the five cross-cutting obligations? | How does the water curtailment action or plan recognize that water is not just a commodity or economic resource, but is a social good and cultural good, without violating any of the five cross-cutting obligations? | How does the water curtailment action or plan recognize the sustainability of water, without violating any of the five cross-cutting obligations? |
| **B. Does the proposed water curtailment action or plan satisfy specifically interrelated human rights?** | Availability of Water:<br>(1) Rights to health<br>(2) Rights to work and just and favorable conditions of work<br>(3) Specific human rights protections for vulnerable groups<br>(4) Right to an adequate standard of living<br>(5) Baseline civil and political freedoms<br><br>Water Quality:<br>(1) Right to health<br>(2) Right to healthy environment<br>(3) Right to benefits of scientific progress and applications<br><br>Accessibility of Water:<br>(1) Physical accessibility: civil and political | Specific human rights to preservation and protection of social and cultural goods, including environmental preservation of natural resources and public commons, and indigenous peoples' rights to cultural integrity, identity, and human dignity | Human right to a healthy environment and State duties to prohibit causing transboundary harm<br><br>Human rights-related legal principles on accountable governance, transparency in governmental decision-making, community participation in public affairs<br><br>ICESCR Article 2 progressive realization and non-retrogression obligations |

| | | | |
|---|---|---|---|
| | rights to freedom of movement and choice of residence, privacy, security, and rights to just and favorable conditions of work, education, cultural participation, and gender equality<br>(2) Economic accessibility: affordability through non-deprivation of means of subsistence, ICESCR Article 2(1), business and human rights, rights to social security, social insurance, and social protection measures<br>(3) Informational accessibility: human rights to information and public participation, transparency and accountability in governmental decision-making | | Are SDG 6 targets hampered by the proposed water curtailment plan? |

**TABLE 3: WATER GOVERNANCE ANALYTICAL AND LEGAL MATRIX**

| | **INDICATOR 1: Influential Actors in Water Governance** | **INDICATOR 2: Evidence of Participatory, Inclusive, or Decentralized Water Management** | **INDICATOR 3: Transparency and Accountability Arrangements and Enforcement** | **INDICATOR 4: Threats to Hydrosocial (Livelihood, Cultural, Religious) Relations** |
|---|---|---|---|---|
| **Element 1 of the Human Right to Water:**<br><br>**ADEQUACY**<br><br>Availability of water<br><br>Water Quality | The nature of influence and the type of actor expectedly varies according to the aspect of adequacy involved. | The evidence taken also depends on the aspect of adequacy involved. | Is there transparency, accountability, and enforcement in regard to decisions taken involving the adequacy element of the | What threats to hydrosocial relations arise in regard to decisions involving adequacy (e.g. water availability, |

| | | | | |
|---|---|---|---|---|
| Accessibility of Water<br><br>a) Cross-Cutting obligations<br>b) Interrelated Specific Human Rights Obligations | | | human right to water? | quality, accessibility)? |
| **Element 2 of the Human Right to Water:**<br><br>**MULTIDIMENSIONALITY**<br><br>Water as a Social Good<br><br>Water as a Cultural Good<br><br>a) Cross-Cutting Obligations<br>b) Interrelated Specific Human Rights Obligations | Which actors influence the characterization of water as an economic resource, instead of a social or cultural good? | Is there evidence of participation, inclusiveness, or decentralized water management when water is treated as also a social and cultural good? | Is there transparency, accountability, and enforcement in regard to decisions taken involving the multidimensionality element of the human right to water? | What threats to hydrosocial relations arise in regard to decisions involving the multidimensionality of water, especially as they relate to indigenous peoples and other distinct cultural communities? |
| **Element 3 of the Human Right to Water:**<br><br>**SUSTAINABILITY**<br><br>Protection and preservation of intergenerational rights and interests<br><br>Non-retrogression obligation<br><br>a) Cross-Cutting Obligations<br>b) Interrelated Specific Human Rights Obligations | Which actors are involved in making decisions that impact the sustainability of water? | What evidence is there that any sustainability proposal or decision is participatory, inclusive, or decentralized? | Are water sustainability decisions, plans, or measures transparent, and are there provisions for accountability, as well as for enforcement? | What threats to hydrosocial relations arise in regard to decisions involving water sustainability? |

# 4. THE RRW FRAMEWORK IN PRACTICE: APPLICATION TO THE GREAT JUNIPER DAM

We demonstrate the application of our framework to the Great Juniper Dam, a fictional case constructed by pulling the most important findings from five real cases of water-intensive industries where we use-tested the RRW Framework (Figure 8). The five cases represent a wide range of location, industrial sectors, water security and governance challenges, and legal and institutional contexts.

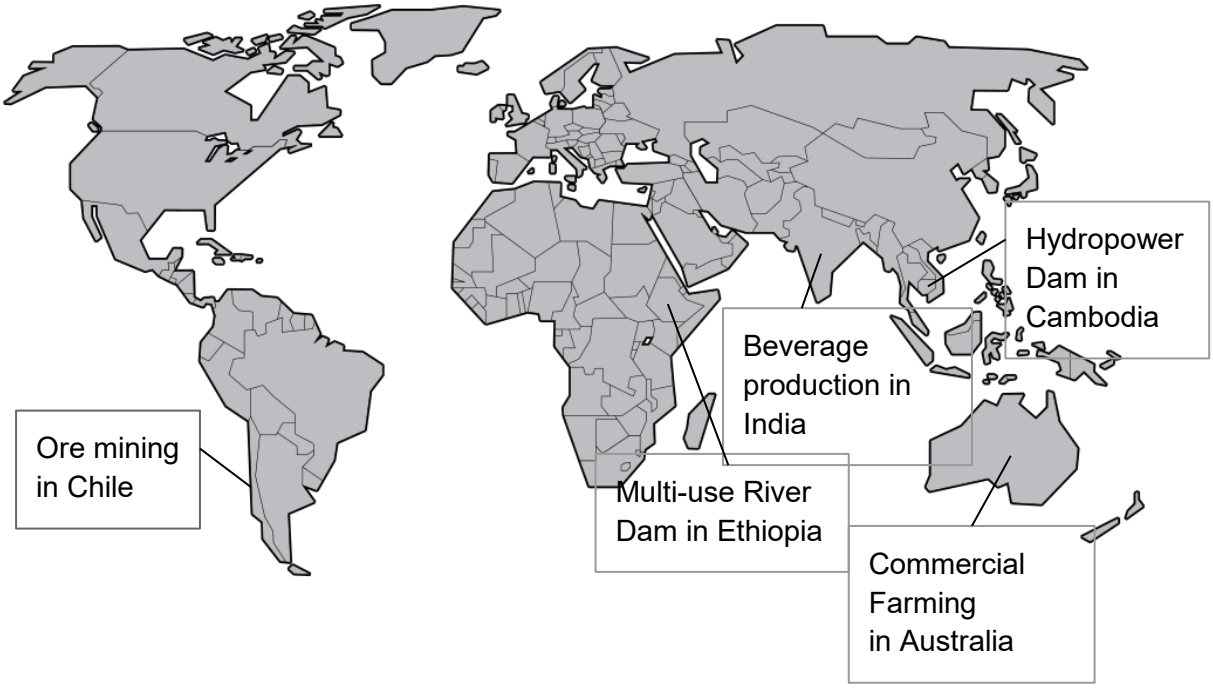



**Figure 8. Location and characteristics of the five use-cases used to construct the fictitious case study of the Great Juniper Dam**

## THE GREAT JUNIPER DAM

In recent years the government of Juniper, a middle-income country, and its consultants have completed a 10-year Strategic Plan for Green Energy Transition. The main goal is to be the first carbon-neutral country on the continent by specifically transitioning away from coal power to hydropower and to go carbon-neutral by 2050. The Great Juniper Dam represents the first step of this strategic plan. The Juniper river flows south to north, starting in the Juniper Hills and continuing north through the arid Juniper Valley. Once filled, the Dam reservoir will cover a surface of approximately 400 $km^2$. It will supply water to a hydroelectric plant with an installed capacity of 5 GW of power and an estimated annual output of 30 TWh. The reservoir will also provide 1000 acre-feet of irrigation water that will be used for industrial sugarcane plantations in the plains West of the dam. By favoring the development of the sugarcane industry, the Government hopes to generate fiscal revenues and economic development by leveraging a recent boom in global

biofuel demand. The sugarcane will be exported to global markets as a flexcrop commodity that can be alternatively sold as food or biofuel, depending on market conditions.

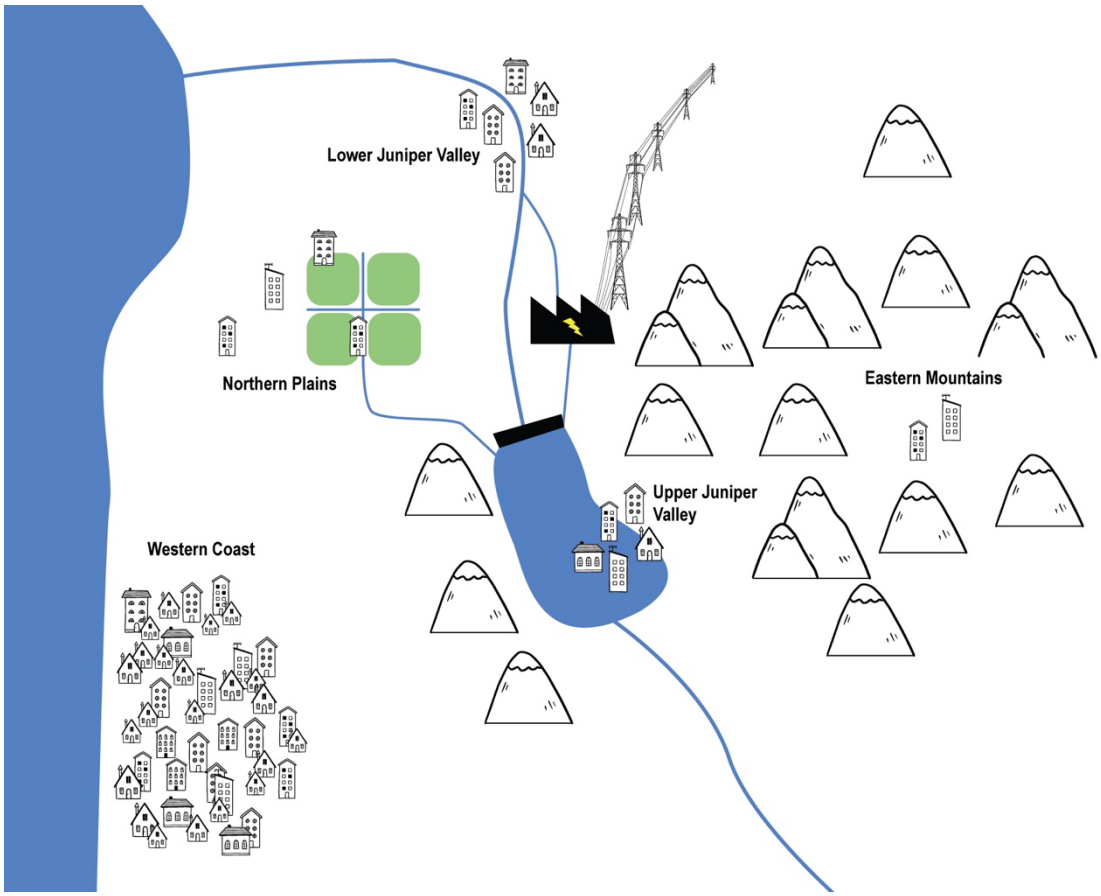



**Figure 9. A visual representation of the layout of Juniper.**

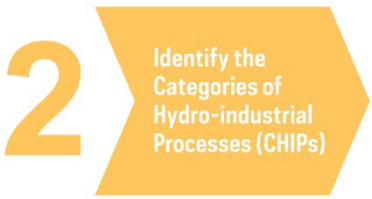


**Upper Juniper Valley People:** They are the most immediately affected community of 10,000 members that are located in ten villages set to be flooded by the dam's reservoir.

**Lower Juniper Valley People:** They live in villages along the river downstream from the proposed dam site and subsist from fishing on the river and from agriculture in the areas adjacent to the river that are enriched annually through flooding. They also utilize irrigation techniques to grow food in land slightly further afield from the river, which is the entire source of livelihood.

**The Northern Plains People:** They live in the grasslands immediately to the West of the Lower Juniper river. They are traditionally a semi-nomadic group that relies on large herds of sheep and goats and some cattle.

There are other two main communities, the ***Eastern Mountain People*** and the ***Western Coastal People.*** The former are characterized by people that used to work in coal mining processes and whose jobs are going away, while the latter include people that live in the capital city located on the coast and that view the dam as a means to foster further development of the economy as well as regional influence for the country. Since these last two groups are not directly affected by the dam and its related water issues, we have not considered them as SICs.




The dam and the hydropower produced will be able to meet Juniper's domestic electricity needs including projected growth over the coming 20 years while exporting an estimated 10 TWh annually, positioning Juniper as a regional energy power. The construction and the generation of electricity from the dam are two important processes that the Governor of Juniper (GoJ) has to plan. In addition, the GoJ also wants to use water from the reservoir to construct significant irrigation projects in the grasslands and develop sugarcane plantations. They have explained to local communities that these plantations will give them secure jobs and the electricity from the dam will allow for development in the region, freeing them from the precarity of their semi-nomadic lifestyle that the government and NGOs say will only get more difficult with climate change.

*List of CHIPs:*

- **Reservoir filling:** The reservoir associated with the dam will affect downstream water availability during their filling period, and flood large portion of land that was previously inhabited;
- **Hydropower Operations:** The reservoirs associated with the dam temporarily store water to maximize hydropower production. This has a long term impact on the timing and variability of downstream water availability;
- **Diversion for irrigation:** Some of the water collected by the reservoir is not returned to the river but diverted towards irrigation canals supplying the crop plantations.


### Upper Juniper Valley People

***Filling:*** The Upper Juniper Valley People traditionally live off household-sized rainfed farms in the hills near the upper Juniper river and off small flocks of sheep and goats. Some of the people have also found work in the coal mines in the hills nearby. These locations will be flooded during the filling of the reservoir. Within the context of the RRW Framework, this is interpreted as ***blue water insecurity***. They are a relatively small ethnic minority within Juniper, and most members of the community adhere to traditional religious beliefs unique to the Upper Juniper Valley communities. There is a strong emphasis on the relationship between the community and the surrounding environment. One area close to the community is of great spiritual importance and is the site of an annual pilgrimage. These culturally significant sites will be flooded (***cultural water insecurity)***. GoJ has created, in close collaboration with several NGOs based in the capital, a compensation plan for members of the community whose villages will be displaced due to the construction of the reservoir and its consequent filling. They will be given houses and an allotment of land on the plains just west of the Upper Juniper Valley, where water from the dam will also be used for irrigation to increase the agricultural output of the area. However, the plan does not include a regular income stream for Upper Juniper Valley People are still skeptical about the revenues they can get from these plots and the adaptation required to a different diet and lifestyle (***virtual water insecurity***).

***Operation and Irrigation:*** Once the reservoir is filled, hydropower generation and water diversion for irrigation will not have a direct effect on the communities that used to live in the (now flooded) reservoir area. These communities will have been displaced and will have lost a direct connection to the river.

### Lower Juniper Valley People

***Filling:*** The filling of the Great Juniper Dam could have dramatic effects on the livelihood of the Lower Juniper Valley People, especially in the short term. First, the reservoir is sufficiently large to affect rain patterns in the long term due to increased terrestrial evaporation. The increased average rainfall might decrease the Lower Juniper Valley People's need for irrigation which translates into increased ***green water security.*** However, this is not sufficient to compensate for the adverse effect of the initial reservoir filling on river water availability downstream for irrigation (***blue water insecurity***). Because the communities will not be compensated for the lost agricultural production, this blue water scarcity will directly affect food security and translate into ***virtual water insecurity***. Virtual water insecurity is compounded by an expected initial decrease in fish abundance and diversity due to the lower quality of water downstream from the dam.

***Operation***: The Lower Juniper Valley People are opposed to the dam because they have heard reports that the decreased streamflow variability downstream might have a long term effect on

fish stocks. Indeed, temporal variability in river discharge has been critical to sustaining agriculture and fisheries that support the livelihoods and nutrition of the people in the basin. Hydropower generation will drive water level fluctuations below the dam, particularly during the peak demand for electricity, and create homogenized flows in the rivers between the wet and the dry season. Although the total volume of water will likely not be affected by hydropower generation, water will not be available *when* it is needed (***blue water insecurity***). Without financial compensation and facilitated access to markets, this will jeopardize the food security of the Lower Juniper Valley People (***virtual water insecurity***). By affecting fish stocks, hydropower operations will not only jeopardize the livelihood of Lower Juniper Valley People, but also affect their cultural identity (***cultural water insecurity***). While subsisting on both fish and agriculture, the Lower Juniper Valley People take particular pride in their identity as fisherfolk, which underpins much of their cultural and spiritual traditions. They do not trust the government's assurances that a solution will be found to their concerns, as they have a longstanding hostile relationship with the government who has neglected their area since independence and who they perceive looks down on them as second-class citizens.

***Irrigation:*** As a multi-purpose infrastructure project, the Great Juniper Dam is also intended to enable the development of large-scale agro-industries to meet expanding consumer markets. This will be realized through a series of irrigation projects diverting water from the reservoir to the Northern Plains region. These diversions will affect the Lower Juniper Valley People's access to their main source of irrigation during the critical dry months. Because most communities have access to secondary sources of water – borewells that tap into the riparian aquifer, which the community currently uses for domestic water purposes –, this does not cause a substantial increase in blue water scarcity. However, while sufficient groundwater would be available to use borewells for irrigation, this would require substantial financial investments that are beyond the reach of most communities. In other words, the water is there but infrastructure is missing to access it, which in our framework is interpreted as ***economic water insecurity***. Fortunately, this does not translate into virtual water insecurity because most community members can earn an income by working as farm laborers in the commercial farms and have access to a market to buy food. It is important to also note that commercial irrigation withdrawals do not affect the fisheries that define the cultural identity of the Lower Juniper Valley People and therefore does not add to the cultural water insecurity caused by dam operations for hydropower. This illustrates the fact the different hydro-industrial processes attached to a given infrastructure can have distinct water security impacts.

### Northern Plains People

***Filling:*** The Northern Plain people are grassland herders living upstream of the dam but outside of the flooded area. The expansive reservoir provides a reliable source of drinking water for their cattle, which our framework interprets as increased ***blue water security***.

***Irrigation:*** The GoJ plans to use water from the reservoir to construct extensive irrigation projects in the grasslands and develop cash crop plantations. They have explained to local communities that these plantations will give them secure jobs and the electricity from the dam will allow for development in the region , freeing them from the precarity of their semi-nomadic lifestyle which

the government and NGOs say will only get more difficult with climate change. If these assertions are correct, this will translate into increased ***virtual water security***. The Northern Plains Communities are divided about the dam. Some recognize and appreciate the promised benefits while others lament the loss of their traditions. They also suspect that many of the jobs will in actuality be given to migrants from overcrowded parts of the more populated west of the country and fear that their children will be forced to migrate to the capital as daily laborers and abandon their traditional way of life. These effects are interpreted as ***cultural water insecurity***. Northern Plains People are also bitter about the land and houses being given to their traditional rivals among the Upper Juniper Valley People being resettled in this area. They believe that the lands promised to the displaced people belong traditionally to one of the Northern Plains people's tribal groupings, although they do not have documents for this and the government does not recognize this land tenure. There is a risk that renewed conflict will break out between the relocated Upper Juniper Valley People and the Northern Plains people, although it should be noted that these conflicts are consequences, rather than manifestations of, water insecurity.

**TABLE 4: WATER INSECURITY MATRIX**

| | UPPER JUNIPER VALLEY PEOPLE | LOWER JUNIPER VALLEY PEOPLE | NORTHERN PLAINS PEOPLE |
|---|---|---|---|
| **Filling of the dam** | GW+ BW- VW- CW- | BW- VW- CW- | BW+ |
| **Operational dam** | Not Affected | BW- VW- CW- | VW+ |
| **Irrigation** | Not Affected | EW- | VW+ CW- |

Water security dimensions for each CHIP-SIC relation. Symbols + and - indicate increases and decreases of green (GW) blue (BW), economic (EW), virtual (VW) and cultural (CW) water security.


In an operational implementation of the RRW Framework, the assessor would ascribe a level of accuracy to each combination of CHIP, SIC and CWI, depending on whether the assessment was informed by primary (Level 4) or secondary (Level 3) observations, model simulations (Level 2) or the expert judgment of the assessor (Level 1). The level of accuracy assessment is not carried out in this illustrative example, due to the fictitious nature of the considered case study.


The text above, in its entirety, presents a shortened example of the type of narrative that the assessor could produce to accompany the water insecurity table.



The Juniper Water Management Act is the primary relevant water legislation in the Kingdom of Juniper. However, it doesn't define a right to water per se, is vaguely worded, and does little to describe an enforcement mechanism. Broadly speaking, it identifies the state as responsible for making decisions regarding the most effective use of water and defines water as an important natural resource, implicitly making water management highly centralized. A draft Model Water Management Bill that would explicitly define water as a public good and mandate participatory decision-making processes with local communities affected by water infrastructure projects has met opposition in Parliament and has not been passed.

In the landmark case Consumer Action Aid v. The Kingdom of Juniper, which involved the contamination of groundwater of tribal communities due to an ongoing fertilizer plant's operations, a partial panel (3 justices) of the Supreme Court of Juniper ruled unanimously that a 'right to water' is an implicit and indispensable part of the 'right to life and human dignity,' which forms the cornerstone of the Bill of Rights of the Constitution of Juniper. However, the full panel (7 justices) of the Supreme Court ruled 5-2 in favor of the State in a later case, Green Water Association v. The Kingdom of Juniper. This decision seemed to contradict the Consumer Action Aid decision in that it never mentioned the previous case or a "right to water." The issue in this case was the continued construction of a smaller dam in the Pandong valley, which had a significant impact on the environment downstream and thousands of tribal people downstream in the valley who were displaced with inadequate resettlement and rehabilitation plans.

Some observers have argued that the decision demonstrated a complete disregard for both fundamental human rights and Juniper's obligations under the ICESCR, as well as for the right to water that had emerged in the previous Consumer Action Aid case. Proponents of the dam project argued, however, that the lack of groundwater pollution in that project made it a categorically different issue and that the right to water found in Consumer Action Aid is a collective right for the nation as a whole, with GoJ authorized to decide how to most effectively use water for development.

A coalition of community leaders in the Lower Juniper Valley has launched an appeal asking for the Great Juniper dam to be stopped based on the right to water found in Consumer Action Aid. The State and pro-dam NGOs have argued against this appeal, arguing that the Green Water decision is the relevant precedent. An organization representing religious leaders among the Upper Juniper Valley people have launched a separate appeal asking for the dam to be located further north (downstream) so as to not affect the communities. Attempts have been made to find common ground between the Upper and Lower Juniper Valley communities' demands, but they have been unsuccessful, leading to considerable tension.

In addition, some NGOs in favor of the dam project have highlighted the infighting between Upper and Lower Juniper Valley communities as indicative of why the Model Water Management Bill

should not be passed and a justification for decision-making for water management to continue to reside in the central government.

This inconsistent approach of the Court is especially concerning since the Constitution of Juniper does not explicitly contain a right to water. There is considerable fear from various observers that the combination of the inability to pass the Model Water Management Bill, which would provide for more local participation in decision-making, and the confusion around the Supreme Court stance on the issue is eroding the sense of legitimacy of the state among communities in the East set to be affected by the dam, which will make it more difficult for the state to intervene effectively if tensions lead to conflict.


The major actors include the Government of Juniper( GoJ), local district-level councils, the judiciary, the Juniper Security Forces and Police, local civil society, local militias, national NGOs and INGOs, multinational companies, the World Bank, and other regional intergovernmental bodies.


The Northern Plains people to the west of the Valley and the dam have a history of complicated relations with the Upper Valley community. The Northern Plains people are semi-nomadic and traditionally move to the foothills during the summer months where they are in contact with Upper Valley communities. This contact has often been collaborative, defined by trade, but at times of scarcity has resulted in conflict, with raiding of flocks happening in both directions. The displacement of Upper Valley communities to the Northern Plains, where they will be given houses and land that the host communities will not get, will likely exacerbate this conflict. The Northern Plains people claim that the land allocated for resettling in Upper Valley people belongs to one of the Northern Plains tribal confederations. However, GoJ does not recognize this land tenure and considers the land state land.

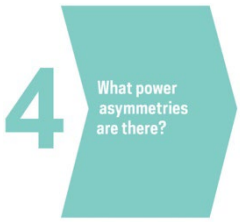
The irrigation of the plains will also result in reduced grazing land and will exacerbate conflict between subgroups of the Northern Plains people themselves, who have a history of some inter-tribal conflict during times of drought.

In general, the Northern Plains people are divided on the project. Some recognize and appreciate the promised benefits while others lament their loss of their lifestyle and culture and suspect that many of the jobs will in actuality be given to migrants from overcrowded parts of the more populated west of the country, including the capital. This also will potentially lead to conflict between the Northern Plains people and the incoming migrants from the coast.

There have also historically been tensions between Upper Valley communities and some civil society actors based in the West around the latter's attempt to shut down the coal industry and make a nature preserve in the Upper Valley. Some of these same actors are enthusiastically in support of the dam project and were involved in developing the compensation plan for displaced communities.

The Lower Juniper Valley People have had a long standoffish relationship with the state. Their distrust of the state will likely increase with this project, as their livelihoods will be destroyed and the benefits will be largely directed elsewhere. They will also likely feel frustrated that some affected communities will receive some type of compensation, whereas the effects they will feel go unrecognized.

Generally speaking, the project and its implementation will exacerbate and seem to confirm longstanding sentiments by ethnic minority communities in the east of the country that the state represents the interests of communities in the west, and that the resources in the east exist for those communities as well. This will likely create increased problems of state legitimacy among these communities that have historic roots.




**The Government of Juniper (GoJ):** The government is a democratically elected government dominated by the political party that previously led its independence movement, the Juniper National Democratic Movement (JNDM). JNDM is based in the populous Western coastal region of the country, where the capital is, and where the bulk of the population lives. JNDM is popular among these Western communities with whom it shares ethnic and cultural ties and whose overall interests it is broadly seen to represent.

**Local district-level councils:** These councils also have devolved decision-making power according to the Juniper constitution. Councils in the central and eastern parts of the country (where the population consists of ethnic minorities) have some constitutionally-mandated autonomy, strengthening their local powers. However, in practice, these powers are functionally contingent upon the good relations between the councils and the central government/ruling party. Often, the councils are dominated by GoJ-friendly local leaders who stay in power thanks to the patronage of the ruling party but may not represent the viewpoints of local communities. In addition, it is constitutionally unclear what role these bodies have in decisions related to matters that have ramifications for multiple council areas, as the Juniper dam project would. The Model Water Management Bill would mandate the participation of these councils in decision-making with regards to water management, but as mentioned above, this bill has not been passed.

**Judiciary:** The judicial system, particularly the Supreme Court of Juniper, is a powerful institution of life-appointed justices and is known for operating with an independent streak at times. However, its ability to restrict GoJ from pursuing its strategic goals varies from issue to issue. On some issues, the court has innovatively read constitutional provisions, almost to the extent of law making, to make up for the gaps in the law. The Supreme Court of Juniper has an innovative Public Interest Litigation mechanism by which any public-spirited individual can put public grievances before the court. This mechanism has acquired unprecedented legitimacy and is seen as a powerful weapon to keep the government in check. This mechanism was used to launch the Consumer Action Aid case, for example.

**The Juniper Security Forces and Police:** The military and police forces of Juniper are quite centralized and tightly controlled by the ruling party. Traditionally, they do not act in contradiction

to GoJ's goals and interests, but they can be used as an instrument in subtle ways to influence wayward local councils when local councils come into disagreement with the central government.

**Local Civil Society:** Grassroots community organizations and traditional leaders, including religious leaders among the Upper Juniper Valley communities and coal mining union organizers in the Upper Valley and Eastern Mountains, often represent the interests and viewpoints of ethnic-minority communities in central and eastern parts of the country due to be most affected by the Dam. They have power and influence over the local district councils but this power and influence is limited and varies from region to region.

**Local Militias:** In more remote areas of the east of the country, local militias at times play an informal policing role. During times of tensions between Upper Valley communities and Northern Plains communities, these militias are at the forefront of any resulting violence. They have an ambiguous relationship with national security forces, at times in direct conflict with them when intercommunal tensions grow increasingly violent and at times cooperating with them informally to provide law and order in remote areas.

**National NGOs / INGOs:** NGOs, especially environmentally-focused organizations, are mostly located in the populous west. As an important and vocal actor within the broader western population, the NGOs have power and influence vis-a-vis GoJ and the ruling party, who derive their support from the broader western population. INGOs work closely with western-based local NGOs and have sought to empower them in recent years according to a localization strategy. They provide crucial funding to local NGOs.

**Multinationals:** Due to being involved in the building of the dam and the hydropower infrastructure, as well as in related irrigation and agricultural projects, large multinational companies are a key actor in GoJ's development plans and hold considerable influence.

**World Bank and international and regional intergovernmental bodies:** GoJ intends to become an important exporter of electricity in the region after the dam's construction. Regional interests are eager to get access to this electricity for their own development, and the World Bank is incentivizing GoJ's shift from coal energy to clean hydropower. The encouragement and incentives from international actors is an important part of GoJ's decision-making calculus.

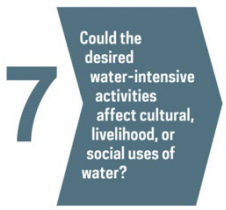

The government views the Juniper River dam project and the projects for hydropower infrastructure and Northern Plains irrigation projects through the lens of a distinctly national framework. The project is set to achieve key goals in the Strategic Plan for Green Energy Transition, developed by GoJ with the assistance of the consultancy firm 21st Century Solutions. The aims to be carbon neutral by 2050 and to become a regional energy exporter – while also meeting increased domestic demand – are considered crucial elements of the broader national development strategy. The GoJ also furthers this strategy through its aim for increased influence in the international stage as a model climate change actor.

As such, the decision-making process for the dam project mainly incorporated national government planners with the support of national and international civil society and intergovernmental stakeholders. Local councils were involved to a lesser extent, and this consultation was focused on local council leaders seen as friendly to the ruling party and its national development strategy. Involvement of local councils was also limited in scope. The Model Water Management Bill would have mandated a more robust process of local participation in planning around this project but has not been passed.

A notable example of how this process has failed to include adequate local participation is in the selection of the specific dam site. The site was chosen from among three possible sites by government planners based in the capital, including consultants from 21st Century Solutions who had no knowledge of the religious significance of the site. When the Upper Valley people heard rumors of the possibility that their sacred site would be flooded, they launched a series of protests and sent a delegation of community elders to the capital to try to speak with the government. The government responded by securing the approval of the chair of the local council for the area, further inflaming tensions as the chair is viewed as remote and corrupt by many local people. He resides most of the year in the capital and is rumored to have financial connections to agro-industrial companies set to benefit from the irrigation schemes.


GoJ has taken a narrow view to compensation in the case of the Juniper River dam project, with a specific, and in some ways generous, compensation plan for the Upper Valley communities whose villages will be flooded by allotting them plots of land and houses in the Northern Plains region. However, there was little community consultation built into the decision-making process for this plan. Thus, there was no forum to consider the secondary effects, including the likelihood for increased conflict between displaced communities and host communities, as well as the loss of a traditional lifestyle and religious sites. In addition, the GoJ has not thought that other affected communities, those downriver, and those in the Northern Plains should receive compensation or be consulted. The GoJ operates under the assumption that as citizens of Juniper, these communities will benefit from the overall national development resulting from the project.

The primary sources of accountability for these communities are their local councils, judicial appeal, and civil society advocates. Local councils have been consulted in a limited fashion only and don't always represent the broad array of local interests. The most influential NGOs are western-based and broadly agree with the government's national development goals. They are not trusted by eastern local communities and seen as remote. The judicial system has been seen with a degree of trust, and its innovative PIL mechanism is seen as a way to safeguard the interests of vulnerable communities that have been victims of governmental oppression or been denied their constitutional rights.




The Juniper dam project will have profound effects on non-tangible social and cultural practices. The Upper Valley communities, in addition to losing their holy site, will also experience a fundamentally altered sense of the meaning of the river. For them the river is a being that provides life. For the river to be controlled by human will is a deeply disturbing event.

The downstream Lower Juniper Valley People's fishing and riverbank farming livelihoods will be significantly altered, if not destroyed. Their sense of place is deeply connected to their dependence on the river and the livelihoods it supports. Over time, they face likely displacement, with younger generations being the first to go in search of work elsewhere, breaking up the coherence of the social structure.

The Northern Plains people are likely to lose key grazing ground in the wake of irrigated agricultural plans and will experience an influx of newcomers into their region, both displaced Upper Valley communities with whom they have fraught relations and westerners coming to work on industrial farms. Their relation to water is closely linked to their semi-nomadic herding lifestyle, moving with seasonal shifts to different pasture land. This lifestyle will be fundamentally altered.

## THE RRW FRAMEWORK'S LEGAL ASSESSMENT

The tables below demonstrate how the legal analysis compiles, analyzes, and interprets water insecurity and governance factors as human rights implementation inquiries.

**TABLE 5: WATER INSECURITY ANALYTICAL AND LEGAL MATRIX:**
**Great Juniper Dam's Reservoir Filling**

| TWO-TIERED TEST | ADEQUACY | MULTIDIMENSIONALITY | SUSTAINABILITY |
|---|---|---|---|
| **A. Is the Great Juniper Dam's reservoir filling as part of the government of Juniper's development regime consistent with the Kingdom of Juniper's cross-cutting human rights obligations?** | Availability of water: challenges to availability for all demographics affected<br><br>Water Quality: possible diversity in water quality<br><br>Accessibility of water: possible diversity in water accessibility | Water as a Social Good: not clear from the described measure if the measure considers the nature of water as a social good<br><br>Water as a Cultural Good: the described measure completely overlooks the nature of water as a cultural good for indigenous northern hill, northern valley, and Northern Plains' communities. | Protection and Preservation of Intergenerational Rights and Interests: not described in the case study<br><br>Non-Retrogression Obligation: not described in the case study if the Kingdom of Juniper and the other state/non-state actors are taking steps to avoid a lower quality of human rights protection (requires further investigation) |

| | | | |
|---|---|---|---|
| 1. Right to self-determination | Investigate the possible adverse impacts to the indigenous northern hill, northern valley, and Northern Plains' communities' free pursuit of economic, social, and cultural development | Does the impact of the Great Juniper Dam's reservoir filling processes consider that water is recognized as not just a commodity or economic resource, but a social good and cultural good, that affects the indigenous communities' free pursuit of economic, social, cultural development?<br><br>Does the ICCPR, ICESCR and Ethical Charter on Human and Peoples' Rights complaint mechanism (all of which the Kingdom of Juniper is a party to) suffice to respect the rights of the indigenous peoples to self-determination, particularly the free pursuit of their development in relation to water as a social and cultural good without being deprived of their means of subsistence? | Requires further investigation if the reservoir filling operations contain any counterpart policy for sustainability and non-retrogression (not lowering the human rights protections of indigenous communities).<br><br>If there is such a sustainability policy written into the reservoir filling operations, is it consistent with their right to self-determination? |
| 2. Non-discrimination | Altering the traditional livelihoods and decreased access to traditional water sources could infringe the non-discrimination obligation owed towards indigenous communities | When water is treated only as a commodity or economic resource, the whole reservoir filling process overlooks the nature of water as a social good and cultural good (such as no water availability for indigenous people to sustain their traditional livelihoods), is there differential treatment, based on a prohibited ground (e.g. ethnicity or culture), with the intent to discriminate, that impedes the enjoyment of the right to water in its dimensions as social and cultural goods? | If there is a sustainability policy that applies to reservoir filling operations, is it consistent with the guarantee against non-discrimination? |

| | | | |
|---|---|---|---|
| 3. Free disposition of natural resources | Documented reduction of both economic and cultural water scarcity raises questions on the indigenous peoples' rights to freely dispose of their natural resources under the principle of mutual benefit and international law.<br><br>Domestic law contains a Public Interest Mechanism to question government's policies and combat oppression.<br><br>However, we require further investigation to explore if domestic law provides other peculiar compensation and consultation mechanisms to specifically negotiate with indigenous peoples consistent with the right to free disposition. | Did the government of Juniper obtain free, prior, and informed consent of indigenous communities prior to using water for reservoir filling in a way that impeded the free disposition of their natural resources?<br><br>Especially given that there is increased economic and cultural water scarcity through reservoir filling operations that result in counterpart decrease in water availability to indigenous peoples? | Did the original arrangements reached by the government of Juniper as part of its economic development plans to pursue reservoir filling operations contain any sustainability policy, where such policy is informed by the right to free disposition of natural resources of the indigenous peoples, based on the principle of mutual benefit and international law? |
| 4. Non-deprivation of subsistence means | Investigate if the Great Juniper's reservoir filling operations are depriving indigenous peoples of their means of subsistence and traditional livelihoods | Investigate if the long-term reservoir filling operations would result in deprivation of water as a social good and cultural good, in a manner that erodes their means of subsistence. | Investigate if the formulation and implementation of a sustainability policy could help avoid triggering any deprivation of water as a means of subsistence, especially for indigenous communities |

| | | | |
|---|---|---|---|
| 5. Right to equal enjoyment of human rights | Investigate if all water users (especially vulnerable groups such as women, children, persons with disabilities, indigenous peoples) are equally enjoying all human rights in the context of the ongoing reservoir filling processes | When water use, allocation, and distribution is regarded exclusively as a matter of managing economic resources, while at the same time excluding the multiple dimensions of water as social and cultural goods, there is NO equal enjoyment of all human rights by the indigenous peoples, and other affected communities. | Investigate if any sustainability policy formulated and applied to reservoir filling operations would uphold or undermine the right of indigenous communities to equal enjoyment of human rights. |
| **B. Is Great Juniper Dam's reservoir filling as part of Juniper's development regime consistent with the Kingdom of Juniper's specifically interrelated human rights?** | *Requires fact-finding and field investigation in specific community contexts and into government operations and oversight over reservoir filling for development | *Requires fact-finding and field investigation with affected indigenous peoples, Juniper's environmental and cultural ministry/regulatory authorities | *Requires fact-finding and field investigation (especially interviews with affected indigenous communities and Juniper's regulatory authorities) |
| Availability of Water | 1. Rights to highest attainable standard of physical and mental health<br><br>2. Rights to work and just and favorable conditions of work<br><br>3. Specific human rights protections for vulnerable groups (women, children, indigenous peoples, persons with disabilities)<br><br>4. Right to an adequate standard of living<br><br>5. Baseline civil and political freedoms | Specific human rights (treaty-based and custom-based) to preservation and protection of social and cultural goods, including environmental preservation of natural resources and public commons, indigenous peoples' rights to cultural integrity, identity, and human dignity | Human right to a healthy environment and State duties to prohibit causing transboundary harm<br>Human rights-related legal principles on accountable governance, transparency in governmental decision-making, community participation in public affairs<br><br>ICESCR Article 2 progressive realization and non-retrogression obligations<br><br>Are SDG 6 targets adversely affected by the reservoir filling process? |

| | | | |
|---|---|---|---|
| Water Quality | 1. Rights to highest attainable standard of physical and mental health<br><br>2. Right to healthy environment<br><br>3. Right to benefits of scientific progress and applications | Do the scientific and technical standards on water quality also consider its multidimensional uses/nature as social goods and cultural goods? | Do the scientific and technical standards on water quality contain any considerations for long-term sustainability of water quality for future generations, and the non-retrogression of these water quality standards as applied to all indigenous communities? |
| Accessibility of water | 1. Physical accessibility: does the reservoir filling process generate impacts on civil and political rights to freedom of movement and choice of residence, privacy, security, as well as rights to just and favorable conditions of work, education, cultural participation, and gender equality?<br><br>2. Economic accessibility: does the reservoir filling process (or any reliance on privatized markets for water) result in less affordability of water for indigenous peoples and all other affected communities?<br>How do reservoir filling operations affect Juniper's obligation under ICESCR Article 2(1) to take steps for the progressive realization of Covenant rights such as social security, social insurance, social protection measures?<br><br>3. Informational accessibility: do | Does the accessibility of water factor in the need for accessibility based on water as a social good and cultural good to indigenous communities? | Do accessibility policies consider the long-term sustainability of such access to water by all communities, and not just the state interests or other influential non-state actors? |

| | | | |
|---|---|---|---|
| | indigenous communities have rights to information, public participation, transparency with respect to these reservoir filling operations? | | |

**TABLE 6: WATER INSECURITY ANALYTICAL AND LEGAL MATRIX:**
**Great Juniper Dam's Operations**

| TWO-TIERED TEST | ADEQUACY | MULTIDIMENSIONALITY | SUSTAINABILITY |
|---|---|---|---|
| **A. Are Great Juniper Dam's operations for hydropower generation consistent with the Kingdom of Juniper's Cross-cutting human rights law obligations?** | Availability of water: challenges to availability for northern valley communities, no considerable effects on Northern Plains and northern hill communities<br><br>Water Quality: possible diversity in water quality<br><br>Accessibility of water: not clear from the study | Water as a Social Good: not clear from the described measure if the measure considers the nature of water as a social good<br><br>Water as a Cultural Good: not clear if the described measure completely overlooks the nature of water as a cultural good for indigenous peoples | Protection and Preservation of Intergenerational Rights and Interests: not described in the case study<br><br>Non-Retrogression Obligation: not described in the case study if the Kingdom of Juniper and the other state/non-state actors are taking steps to avoid a lower quality of human rights protection |

| | | | |
|---|---|---|---|
| **A. Are Great Juniper Dam's operations for hydropower generation consistent with the Kingdom of Juniper's Cross-cutting human rights law obligations?** | Availability of water: challenges to availability for northern valley communities, no considerable effects on Northern Plains and northern hill communities<br><br>Water Quality: possible diversity in water quality<br><br>Accessibility of water: not clear from the study | Water as a Social Good: not clear from the described measure if the measure considers the nature of water as a social good<br><br>Water as a Cultural Good: not clear if the described measure completely overlooks the nature of water as a cultural good for indigenous peoples | Protection and Preservation of Intergenerational Rights and Interests: not described in the case study<br><br>Non-Retrogression Obligation: not described in the case study if the Kingdom of Juniper and the other state/non-state actors are taking steps to avoid a lower quality of human rights protection |
| 1. Right to self-determination | Investigate possible adverse impacts to the northern hill, northern valley, and Northern Plains' indigenous peoples' free pursuit of economic, social, and cultural development | Do Great Juniper Dam's operational processes recognize that water held as a social and cultural good affects indigenous peoples' free pursuit of economic, social, and cultural development?<br><br>Does the ICCPR, ICESCR and Ethical Charter on Human and Peoples' Rights complaint mechanism (all which Juniper is a party to) suffice to respect the rights of the indigenous peoples to self-determination, particularly the free pursuit of their development in relation to water as a social and cultural good without being deprived of their means of subsistence? | Requires further investigation if Great Juniper Dam's operations contain any counterpart policy for sustainability and non-retrogression (not lowering the human rights protections of indigenous peoples).<br><br>If there is such a sustainability policy written into the Great Juniper Dam's operations, is it consistent with their right to self-determination? |

| | | | |
|---|---|---|---|
| 2. Non-discrimination | Are Great Juniper Dam's operations that result in a deprivation of indigenous communities' access to water as an economic, cultural good result in discrimination? | When water is treated only as a commodity or economic resource, and Great Juniper Dam's operation wholly overlooks the nature of water as a social good and cultural good, is there differential treatment, based on a prohibited ground (e.g. ethnicity or culture), with the intent to discriminate, that impedes the enjoyment of the right to water in its dimensions as social and cultural goods? | If there is a sustainability policy that applies to Great Juniper Dam's operations, is it consistent with the guarantee against non-discrimination? |
| 3. Free disposition of natural resources | Are Great Juniper Dam's operational processes undertaken without any appropriate consultation and consent of indigenous peoples on which they are dependent for their livelihoods?<br><br>Domestic law contains a Public Interest Mechanism to question government's policies and combat oppression.<br><br>However, we require further investigation to explore if domestic law provides other peculiar compensation and consultation mechanisms to specifically negotiate with indigenous peoples consistent with the | Did the original arrangements reached by the government of Juniper to conduct Great Juniper Dam's operations, contain any language that obtained free and meaningful consent by the indigenous peoples to the free disposition of their natural resources?<br><br>Especially as to water dispositions through Great Juniper Dam's functioning that result in counterpart decreases in available water to indigenous peoples and other affected communities? | Did the original arrangements reached by the government of Juniper as part of its economic development plans to pursue reservoir filling operations contain any sustainability policy, where such policy is informed by the right to free disposition of natural resources of the indigenous peoples, based on the principle of mutual benefit and international law? |

| | | | |
|---|---|---|---|
| | right to free disposition. | | |
| 4. Non-deprivation of subsistence means | Investigate if Great Juniper Dam's operations are depriving the indigenous peoples of means of subsistence and traditional livelihoods. | Investigate if the long-term implementation of Great Juniper Dam's operations would result in deprivation of water as a social good and cultural good, in a manner that erodes the indigenous communities' means of subsistence. | Investigate if the formulation and implementation of a sustainability policy could help avoid triggering any deprivation of water as a means of subsistence, especially for indigenous peoples and the most vulnerable groups. |
| 5. Right to equal enjoyment of human rights | Investigate if all water users (especially vulnerable groups such as women, children, persons with disabilities, indigenous peoples) are equally enjoying all human rights in the context of the ongoing Great Juniper Dam's operational processes, given the morphological and ecological impacts. | When Great Juniper Dam's operations are regarded exclusively as a matter of managing a resource that is NOT legally regarded or protected as a water resource, while at the same time excluding its possible multiple dimensions of water as social and cultural goods, there is NO equal enjoyment of all human rights by the indigenous peoples. | Investigate if any sustainability policy is formulated and applied to Great Juniper Dam's operations that would uphold or undermine the right of indigenous communities and peoples to equal enjoyment of human rights. |
| **B. Are Great Juniper Dam's operations for hydropower generation consistent with the Kingdom of Juniper's specifically interrelated human rights?** | *Requires fact-finding and field investigation in specific community contexts and into and Juniper government's oversight over Great Juniper Dam's operations | *Requires fact-finding and field investigation with indigenous peoples, Juniper's environmental and cultural ministry/regulatory authorities | *Requires fact-finding and field investigation (especially interviews with affected communities and Juniper's regulatory authorities) |

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|---|---|---|---|
| Availability of Water | 1. Rights to highest attainable standard of physical and mental health<br>2. Rights to work and just and favorable conditions of work<br>3. Specific human rights protections for vulnerable groups (women, children, indigenous peoples, persons with disabilities)<br>4. Right to an adequate standard of living<br>5. Baseline civil and political freedoms | Specific human rights (treaty-based and custom-based) to preservation and protection of social and cultural goods, including environmental preservation of natural resources and public commons, indigenous peoples' rights to cultural integrity, identity, and human dignity | Human right to a healthy environment and State duties to prohibit causing transboundary harm<br><br>Human rights-related legal principles on accountable governance, transparency in governmental decision-making, community participation in public affairs<br><br>ICESCR Article 2 progressive realization and non-retrogression obligations<br><br>Are SDG 6 targets significantly and negatively affected by Great Juniper Dam's operations? |
| Water Quality | 1. Rights to highest attainable standard of physical and mental health<br>2. Right to healthy environment<br>3. Right to benefits of scientific progress and applications | Do the scientific and technical standards on water quality also consider its multidimensional uses/nature as social goods and cultural goods? | Do the scientific and technical standards on water quality contain any considerations for long-term sustainability of water quality for future generations, and the non-retrogression of these water quality standards as applied to all indigenous communities? |
| Accessibility of Water | 1. Physical accessibility: does Great Juniper Dam's operations generate impacts on civil and political rights to freedom of movement and choice of residence, privacy, security, as well as rights to just and favorable conditions of work, education, cultural participation, and gender equality? | Does the accessibility of water factor in the need for accessibility based on water as a social good and cultural good to indigenous communities? | Do accessibility policies consider the long-term sustainability of such access to water by all communities, and not just the state interests or other influential non-state actors? |

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| | 2. Economic accessibility: do Great Juniper Dam's operations (or any reliance on privatized markets for water) result in less affordability of water for indigenous peoples?<br>How do Great Juniper Dam's operations affect Juniper's obligation under ICESCR Article 2(1) to take obligation under ICESCR Article 2(1) to take steps for the progressive realization of Covenant rights such as social security, social insurance, social protection measures?<br><br>3. Informational accessibility: do indigenous communities have rights to information, public participation, transparency with respect to these operations? | | |

**TABLE 7: WATER INSECURITY ANALYTICAL AND LEGAL MATRIX**
**Great Juniper Dam's Diversion for Irrigation**

| TWO-TIERED TEST | ADEQUACY | MULTIDIMENSIONALITY | SUSTAINABILITY |
|---|---|---|---|
| **A. Is diversion of the Great Juniper Dam's reservoir water towards irrigation canals supplying it for crop plantations consistent with the Kingdom of Juniper's cross-cutting human rights obligations?** | Availability of water: challenges to availability for Lower Juniper Valley People. Northern Plains communities and Upper Juniper Valley People are not affected.<br><br>Water Quality: not clear from the study<br><br>Accessibility of water: possible diversity in water accessibility | Water as a Social Good: not clear from the described measure if the measure considers the nature of water as a social good<br><br>Water as a Cultural Good: the described measure completely overlooks the nature of water as a cultural good for indigenous northern hill, northern valley, and Northern Plains' communities. | Protection and Preservation of Intergenerational Rights and Interests: not described in the case study<br><br>Non-Retrogression Obligation: not described in the case study if the Kingdom of Juniper and the other state/non-state actors are taking steps to avoid a lower quality of human rights protection (requires further investigation) |
| 1. Right to self-determination | Investigate the possible adverse impacts to the indigenous northern hill, northern valley, and Northern Plains' communities' free pursuit of economic, social, and cultural development | Does the impact of the diversion of Great Juniper Dam's reservoir water for irrigation consider that water is recognized as not just a commodity or economic resource, but a social good and cultural good, that affects the indigenous communities' free pursuit of economic, social, cultural development?<br><br>Does the ICCPR, ICESCR and Ethical Charter on Human and Peoples' Rights complaint mechanism (all of which the Kingdom of Juniper is a party to) suffice to respect the rights of the indigenous peoples to self-determination, particularly the free pursuit of their development in relation to | Requires further investigation if the diversion of reservoir water for irrigation contains any counterpart policy for sustainability and non-retrogression (not lowering the human rights protections of indigenous communities).<br>If there is such a sustainability policy written into the reservoir filling operations, is it consistent with their right to self-determination? |

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| | | water as a social and cultural good without being deprived of their means of subsistence? | |
| 2. Non-discrimination | Altering the traditional livelihoods and decreased access to traditional water sources could infringe the non-discrimination obligation owed towards indigenous communities | When water is treated only as a commodity or economic resource, the whole reservoir filling process overlooks the nature of water as a social good and cultural good (such as no water availability for indigenous people to sustain their traditional livelihoods), is there differential treatment, based on a prohibited ground (e.g. ethnicity or culture), with the intent to discriminate, that impedes the enjoyment of the right to water in its dimensions as social and cultural goods? | If there is a sustainability policy that applies to reservoir water diversion for irrigation, is it consistent with the guarantee against non-discrimination? |
| 3. Free disposition of natural resources | Documented reduction of both economic and cultural water scarcity raises questions on the indigenous peoples' rights to freely dispose of their natural resources under the principle of mutual benefit and international law.<br><br>Domestic law contains a Public Interest Mechanism to question government's policies and combat oppression.<br><br>However, we require further investigation to explore if domestic | Did the government of Juniper obtain free, prior, and informed consent of indigenous communities prior to diverting reservoir water for irrigation in a way that impeded the free disposition of their natural resources?<br><br>Especially given that there is increased economic and cultural water scarcity through diversion processes, does that result in counterpart decrease in water availability to indigenous peoples? | Did the original arrangements reached by the government of Juniper as part of its economic development plans to pursue reservoir water diversion contain any sustainability policy, where such policy is informed by the right to free disposition of natural resources of the indigenous peoples, based on the principle of mutual benefit and international law? |

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| | law provides other peculiar compensation and consultation mechanisms to specifically negotiate with indigenous peoples consistent with the right to free disposition. | | |
| 4. Non-deprivation of subsistence means | Investigate if the Great Juniper's reservoir water diversion operations are depriving indigenous peoples of their means of subsistence and traditional livelihoods | Investigate if the long-term reservoir water diversion operations would result in deprivation of water as a social good and cultural good, in a manner that erodes their means of subsistence. | Investigate if the formulation and implementation of a sustainability policy could help avoid triggering any deprivation of water as a means of subsistence, especially for indigenous communities |
| 5. Right to equal enjoyment of human rights | Investigate if all water users (especially vulnerable groups such as women, children, persons with disabilities, indigenous peoples) are equally enjoying all human rights in the context of the ongoing reservoir water diversion processes | When water use, allocation, and distribution is regarded exclusively as a matter of managing economic resources, while at the same time excluding the multiple dimensions of water as social and cultural goods, there is NO equal enjoyment of all human rights by the indigenous peoples, and other affected communities. | Investigate if any sustainability policy formulated and applied to reservoir water diversion operations would uphold or undermine the right of indigenous communities to equal enjoyment of human rights. |
| **B. Is diversion of the Great Juniper Dam's reservoir water towards irrigation canals supplying it for crop plantations consistent with the Kingdom of Juniper's specifically interrelated human rights?** | *Requires fact-finding and field investigation in specific community contexts and into government operations and oversight over reservoir water diversion processes | *Requires fact-finding and field investigation with affected indigenous peoples, Juniper's environmental and cultural ministry/regulatory authorities | *Requires fact-finding and field investigation (especially interviews with affected indigenous communities and Juniper's regulatory authorities) |

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|---|---|---|---|
| Availability of Water | 1. Rights to highest attainable standard of physical and mental health<br><br>2. Rights to work and just and favorable conditions of work<br><br>3. Specific human rights protections for vulnerable groups (women, children, indigenous peoples, persons with disabilities)<br><br>4. Right to an adequate standard of living<br><br>5. Baseline civil and political freedoms | Specific human rights (treaty-based and custom-based) to preservation and protection of social and cultural goods, including environmental preservation of natural resources and public commons, indigenous peoples' rights to cultural integrity, identity, and human dignity | Human right to a healthy environment and State duties to prohibit causing transboundary harm<br><br>Human rights-related legal principles on accountable governance, transparency in governmental decision-making, community participation in public affairs<br><br>ICESCR Article 2 progressive realization and non-retrogression obligations<br><br>Are SDG 6 targets adversely affected by the reservoir filling process? |
| Water Quality | 1. Rights to highest attainable standard of physical and mental health<br><br>2. Right to healthy environment<br><br>3. Right to benefits of scientific progress and applications | Do the scientific and technical standards on water quality also consider its multidimensional uses/nature as social goods and cultural goods? | Do the scientific and technical standards on water quality contain any considerations for long-term sustainability of water quality for future generations, and the non-retrogression of these water quality standards as applied to all indigenous communities? |
| Accessibility of water | 1. Physical accessibility: does the reservoir water diversion process generate impacts on civil and political rights to freedom of movement and choice of residence, privacy, security, as well as rights to just and favorable conditions of work, education, cultural | Does the accessibility of water factor in the need for accessibility based on water as a social good and cultural good to indigenous communities? | Do accessibility policies consider the long-term sustainability of such access to water by all communities, and not just the state interests or other influential non-state actors? |

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| | participation, and gender equality?<br><br>2. Economic accessibility: does the reservoir water diversion processes (or any reliance on privatized markets for water) result in less affordability of water for indigenous peoples and all other affected communities?<br>How do reservoir water diversion operations affect Juniper's obligation under ICESCR Article 2(1) to take steps for the progressive realization of Covenant rights such as social security, social insurance, social protection measures?<br><br>3. Informational accessibility: do indigenous communities have rights to information, public participation, transparency with respect to these reservoir filling operations? | | |

**TABLE 8: ANALYTICAL AND LEGAL MATRIX FOR IDENTIFYING AND MAPPING WATER GOVERNANCE FAILURES**

| | **INDICATOR 1: Influential Actors in Water Governance** | **INDICATOR 2: Evidence of Participatory, Inclusive, or Decentralized Water Management** | **INDICATOR 3: Transparency and accountability arrangements and enforcement** | **INDICATOR 4: Threats to Hydrosocial (Livelihood, Cultural, Religious) Relations** |
|---|---|---|---|---|
| **Element 1 of the Human Right to Water:**<br><br>**ADEQUACY**<br><br>**Availability of water**<br>**Water Quality**<br>**Accessibility of Water**<br><br>**a. Cross-Cutting obligations**<br>**b. Interrelated Specific Human Rights Obligations** | Does the government's understanding of water centered development through its policies at the cost of local indigenous communities' result in widespread evident and documented human rights abuses? | Does the government of Juniper engage with local indigenous communities and vulnerable populations to obtain their free, informed consent before beginning major infrastructure projects that directly affect them? | Do Juniper's laws sufficiently address transparency of information on policies affecting water adequacy?<br><br>Does Ethiopian law or Constitution provide for accountability for violations? | Given existing threats to hydro social relations in the context of the Great Juniper Dam's operations, what role exists under the laws of Juniper for the responsibility of policy makers and the other state/non-state actors?<br><br>What is the business (ethical and legal) responsibility of the government operating in the region when they affect the water adequacy with threats to hydro social relations? |

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| **Element 2 of the Human Right to Water:**<br><br>**MULTIDIMENSIONALITY**<br><br>**Water as a Social Good**<br>**Water as a Cultural Good**<br><br>**a. Cross-Cutting obligations**<br>**b. Interrelated Specific Human Rights Obligations** | Does the government of Juniper and other state/non state actors influence the characterization of water as an economic resource, instead of a social or cultural good? | Does the government of Juniper give enough space for indigenous communities to participate in decision making processes, or decentralized water management especially when water is treated as also a social and cultural good?<br><br>Is there meaningful, comprehensive, and equally-resourced participation of all affected indigenous communities in the dispute resolution process? | Given the dearth of holistic or integrated regulation of the dam's operations and processes that respect ecology, culture, and allow for indigenous participation in water governance, what role can the government and other actors play given this gap? | Do current public and private responses to threats to hydro social relations recognize the multidimensional nature of water and the ensuing legal obligations on the Kingdom of Juniper that is the business (ethical and legal) responsibility of all state and non-state actors when threats to hydro social relations arise? |

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| **Element 3 of the Human Right to Water: SUSTAINABILITY**<br><br>**Protection and preservation of intergenerational rights and interests**<br><br>**Non-retrogression obligation**<br><br>**a. Cross-Cutting obligations**<br>**b. Interrelated Specific Human Rights Obligations** | Are the sustainability policies (if any) of the influential actors in water governance sufficiently consistent with the Kingdom of Juniper's cross-cutting and interrelated human rights obligations?<br><br>Does the government of Juniper have any role in prescribing sustainability standards to these influential actors? | Do indigenous peoples and specifically vulnerable affected communities have any co-authorship over sustainability policies crafted by the influential State and non-State (corporate) actors in water governance?<br><br>Is there an environment that engages multiple approaches to sustainability opposed to the government's idea of development? | Does the Kingdom of Juniper's water policy and institutional environment make it easier to monitor and extend sustainability oversight?<br><br>Is there transparency, a defined fair accountability mechanism, and strong enforcement of sustainability guarantees? | Do threats to hydro social relations implicate the long-term ability of the Kingdom of Juniper to safeguard and ensure sustainability?<br><br>To what extent can the private sector have a role in supporting and respecting sustainability in the face of threats to hydro social relations? |

# 5. CONCLUSION

In a resource-limited world, the paradox of global economic development lies in the fact that the very industries striving to clothe, feed, hydrate, and illuminate populations at an increasing rate are the same ones that threaten these essential services in the future. As the world turns to confront the twin challenges of climate change and unchecked resource extraction, the strengthening of sustainable industrial practices is arising as a critical component. We argue that any comprehensive sustainability initiative for industry must incorporate a consideration for human rights, a belief driven both by ethical understandings of corporate responsibility and recent evolutions in jurisprudence that place greater emphasis on industrial actors' obligation to protect human rights within the context of sustainability.

With this context in mind, there is growing urgency for actionable, standardized, and comprehensive approaches to human rights assessments of water-intensive industrial operations. This paper attempts to fulfill that need by journeying into the rather untouched space of human rights implementation, promoting a questions-based framework for assessing human rights risk over an indicator-based one. We cling to the value that human rights, though universal, manifest in deeply contextual ways and require analysis across localized hydrological conditions, governance concerns, and legal formations. We strive to empower actors directly responsible for project designs and water allocation plans to have the tools to understand these contextual risks and proactively consider human rights implementation into their projects and policies.

We acknowledge that the RRW Framework we have produced is only the starting point, however. Moving forward, companies and States will need to do the work of implementing the general framework to the conditions unique to their contexts. Then, they will need to make the conscious choice to change their operations to mitigate flagged risks. In addition, future research will need to explore methods of attributing human rights violations to specific hydrological activities and governance structures so that the actors involved in preventing and protecting human rights may be held accountable. It is only when such connections are made that weak governance can be corrected and businesses can truly uphold their corporate responsibility as conceived by the UN Framework and Guiding Principles on Business and Human Rights.

In addition, we emphasize that businesses should also move beyond the legal considerations articulated in this framework to commit themselves to an ethical approach to water stewardship. Where the law fails to adequately protect populations, ethical considerations will ultimately drive positive behavior and guide those responsible for grievances to take action. As previous voluntary business initiatives have demonstrated, it is such action that pushes law to evolve for the better regulation of all.

The world is changing. The environmental, legal, ethical, and political landscapes are shifting under the combined weight of climate change, population growth, and rising resource scarcity. With the RRW Framework, we hope to facilitate the transition towards a water-secure world that fully upholds the human rights and dignity to which all people are entitled.

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# ANNEX A

The following section provides an overview of the human rights obligations that ground the rights assessment showcased in Section 3. It is important that the assessment - the key contribution of this paper - be read in relation to its legal foundations, specifically under a thematic and overarching understanding of the human right to water that is to be implemented in tandem with all other human rights.

This section first discusses the specific normative content of legal obligations under the human right to water, before analyzing the correlative human rights obligations implicated in both the Water Insecurity Assessment in Section 3.1, and the Water Governance Assessment in Section 3.2.

## A. Legal Obligations of States and Non-State Entities to Respect, Protect, Fulfil/Facilitate Human Right to Water

The human right to water is both an independent right,[8] as well as an interdependent right that should be understood in a multidimensional and intersectional manner with all human rights.[9] While the human right to water was initially extrapolated from the human right to an adequate standard of living (Article 11 of the International Covenant on Economic, Social and Cultural Rights or ICESCR) and the right to the highest attainable standard of physical and mental health (Article 12 of the ICESCR),[10] many other international human rights treaties have explicitly provided for the right to water.[11] In 2010, the United Nations Human Rights Council affirmed that "the human right to safe drinking water is derived from the right to an adequate standard of living and inextricably related to the right to the highest attainable standard of physical and mental health,

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[8] *See* Human Rights Council, *Report of the United Nations High Commissioner for Human Rights on the scope and content of the relevant human rights obligations related to equitable access to safe drinking water and sanitation under human rights instruments,* A/HRC/6/3, 16 August 2007, full text at: https://www2.ohchr.org/english/issues/water/iexpert/docs/A-CHR-6-3_August07.pdf (last accessed 1 September 2021).

[9] *See* United Nations Water, *Eliminating discrimination and inequalities in access to water and sanitation*, pp. 12-17, full text at https://www.ohchr.org/Documents/Issues/Water/DiscriminationPolicy.pdf (last accessed 1 September 2021); United Nations Human Rights Council, *Report of the Special Rapporteur on the human rights to safe drinking water and sanitation: Progressive realization of the human rights to water and sanitation,* 8 July 2020, at https://undocs.org/en/A/HRC/45/10 (last accessed 1 September 2021).

[10] International Covenant on Economic, Social, and Cultural Rights, Articles 11 and 12. *See* United Nations Committee on Economic, Social and Cultural Rights, *General Comment No. 15: The Right to Water (Arts. 11 and 12 of the Covenant),* E/c.12/2002/11, 20 January 2003, para. 3, full text at https://www.refworld.org/pdfid/4538838d11.pdf (last accessed 1 September 2021).

[11] Convention on the Elimination of All Forms of Discrimination against Women, Article 14(2), *see also* United Nations Committee on the Elimination of Discrimination against Women, *General recommendation No. 34 (2016) on the rights of rural women,* CEDAW/C/GC/34, 7 March 2016, paras. 14, 15, 22, 23, 36, 37, 39(d), 39(e), 43(h), 53, 54(a), 54(d), 56, 58, 59, 78(d), 81, 82, 85(a), full text at https://tbinternet.ohchr.org/_layouts/15/treatybodyexternal/Download.aspx?symbolno=CEDAW/C/GC/34&Lang=en (last accessed 1 September 2021); Convention on the Rights of the Child, Article 24, *see also* United Nations Committee on the Rights of the Child, *General Comment No. 15 (2013) on the right of the child to the enjoyment of the highest attainable standard of health* (art. 24), CRC/C/GC/15, 17 April 2013, at p. 6, full text at https://tbinternet.ohchr.org/_layouts/15/treatybodyexternal/Download.aspx?symbolno=CRC%2fC%2fGC%2f15&Lang=en (last accessed 1 September 2021); Convention on the Rights of Persons with Disabilities, Article 28; African Charter on the Rights and Welfare of the Child, Article 14(2)(c), full text at https://www.achpr.org/public/Document/file/English/achpr_instr_charterchild_eng.pdf (last accessed 1 September 2021); Protocol to the African Charter on Human and Peoples' Rights on the Rights of Women in Africa, Article 15(a), full text at https://www.ohchr.org/Documents/Issues/Women/WG/ProtocolontheRightsofWomen.pdf (last accessed 1 September 2021).

as well as the right to life and human dignity."[12] Sustainable Development Goal 6 ("Ensure availability and sustainable management of water and sanitation for all"), which is explicitly based on international law and human rights treaties,[13] recognizes these multidimensional linkages of the right to water and sanitation with all other civil, political, economic, social and cultural rights.

Regional political statements have recognized the human right to water,[14] and even if these statements in themselves do not contain binding legal obligations that arise from international treaties they tend to model themselves after the normative content of the very same treaties that explicitly provide for the human right to water. Regional jurisprudence of human rights courts such as the Inter-American Court of Human Rights,[15] the European Court of Human Rights,[16] as well as regional norm-creating bodies such as the African Commission on Human and Peoples' Rights (who also draw from the jurisprudence of national or constitutional courts in Africa),[17] all recognize certain binding legal obligations that relate to the human right to water, whether or not the latter is explicitly codified in the American Convention of Human Rights, the European Convention on Human Rights, or the African Convention on Human and Peoples' Rights. All of these international treaties and instruments elaborating the human right to water contain the following required normative content:

> "The right to water contains both freedoms and entitlements. The freedoms include the right to maintain access to existing water supplies necessary for the right to water, and the right to be free from interference, such as the right to be free from arbitrary disconnections or contamination of water supplies. By contrast, the

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[12] United Nations Human Rights Council Resolution 15/9, *Human rights and access to safe drinking water and sanitation,* A/HRC/RES/15/9, 6 October 2010, para. 4, full text at https://undocs.org/A/HRC/RES/15/9 (last accessed 1 September 2021).

[13] United Nations General Assembly Resolution 70/1, *Transforming our world: the 2030 Agenda for Sustainable Development,* A/RES/70/1, 21 October 2015, at paras. 10-12, full text at https://www.un.org/ga/search/view_doc.asp?symbol=A/RES/70/1&Lang=E (last accessed 1 September 2021).

[14] *See for example* European Union Human Rights Guidelines on Safe Drinking Water and Sanitation, adopted by the Council of the European Union, 17 June 2019, full text at https://www.consilium.europa.eu/media/39776/st10145-en19.pdf (last accessed 1 September 2021); African Commission on Human and Peoples' Rights, *Guidelines on the Right to Water in Africa,* 16-30 July 2019, full text at https://www.achpr.org/legalinstruments/detail?id=71 (last accessed 1 September 2021).

[15] *Comunidades Indigenas Miembros de la Asociacion Lhaka Honhat (Nuestra Tierra) v. Argentina,* Inter-American Court of Human Rights, Judgemnt of 6 February 2020 (Merits, reparations, and costs), full text at https://www.corteidh.or.cr/docs/casos/articulos/seriec_400_ing.pdf (last accessed 1 September 2021), at para. 222 ("The right to water is protected by Article 26 of the American Convention and this is revealed by provisions of the OAS Charter that permit deriving rights from which, in turn, the right to water can be understood. These include, for example, the right to a healthy environment and the right to adequate food, and their inclusion the said Article 26 has already been established in this judgment, as has the right to health, which the Court has also indicated is included in this article. The right to water may be connected to other rights, even the right to take part in cultural life, which is also addressed in this judgment.").

[16] *Case of Hudorovic and Others v. Slovenia,* Applications Nos. 24816/14 and 25140/14, European Court of Human Rights, Judgment of 10 March 2020, full text at https://hudoc.echr.coe.int/eng#{%22itemid%22:[%22001-201646%22]} (last accessed 1 September 2021), at para. 116 ("The Court makes clear that access to safe drinking water is not, as such, a right protected by Article 8 of the [European Convention on Human Rights]. However, the Court is mindful that without water the human person cannot survive. A persistent and long-standing lack of access to safe drinking water can therefore, by its very nature, have adverse consequences for health and human dignity effectively eroding the core of private life and the enjoyment of a home within the meaning of Article 8. Therefore, when these stringent conditions are fulfilled, the Court is unable to exclude that a convincing allegation may trigger the State's positive obligations under that provision. Existence of any such positive obligation and its eventual content are necessarily determined by the specific circumstances of the persons affected, but also by the legal framework as well as by the economic and social situation of the State in question….").

[17] Id. at footnote 7. *See also Mazibuko and Others v. City of Johannesburg and Others* (CCT 39/09), [2009] ZACC 28; 2010 (3) BCLR 239 (CC) ; 2010 (4) SA 1 (CC) (8 October 2009), full text at http://www.saflii.org/za/cases/ZACC/2009/28.html (last accessed 1 September 2021).

entitlements include the right to a system of water supply and management that provides equality of opportunity for people to enjoy the right to water.

The elements of the right to water must be *adequate* for human dignity, life and health…The adequacy of water should not be interpreted narrowly, by mere reference to volumetric quantities and technologies. Water should be treated as a social and cultural good, and not primarily as an economic good. The manner of the realization of the right to water must also be sustainable, ensuring that the right can be realized for present and future generations. While the adequacy of water required for the right to water may vary according to different conditions, the following factors apply in all circumstances:

a) *Availability.* The water supply for each person must be sufficient and continuous for personal and domestic uses. These uses ordinarily include drinking, personal sanitation, washing of clothes, food preparation, personal and household hygiene. The quantity of water available for each person should correspond to World Health Organization (WHO) guidelines. Some individuals may also require additional water due to health, climate, and work conditions;

b) *Quality.* The water required for each personal or domestic use must be safe, therefore free from microorganisms, chemical substances and radiological hazards that constitute a threat to a person's health. Furthermore, water should be of an acceptable colour, odour, and taste for each personal or domestic use;

c) *Accessibility.* Water and water facilities and services have to be accessible to everyone without discrimination, within the jurisdiction of the State party. Accessibility has four overlapping dimensions:

    i. *Physical accessibility:* Water, and adequate water facilities and services, must be within safe physical reach for all sections of the population. Sufficient, safe and acceptable water must be accessible within, or in the immediate vicinity, of each household, educational institution, and workplace. All water facilities and services must be of sufficient quality, culturally appropriate and sensitive to gender, life-cycle, and privacy requirements. Physical security should not be threatened during access to water facilities and services;

    ii. *Economic accessibility:* Water, and water facilities and services, must be affordable for all. The direct and indirect costs and charges associated with securing water must be affordable, and must not compromise or threaten the realization of other Covenant rights;

    iii. *Non-discrimination:* Water and water facilities and services must be accessible to all, including the most vulnerable or marginalized sections of the population, in law and in fact, without discrimination on any of the prohibited grounds; and

iv. *Information accessibility:* Accessibility includes the right to seek, receive, and impart information concerning water issues."[18]

The United Nations Committee on Economic, Social and Cultural Rights differentiates between States' general legal obligations in regard to the human right to water, apart from their specific legal obligations. States' **general legal obligations** - largely based on Article 2 of the ICESCR – are deemed to be of immediate effect from the moment that a State becomes a party to this treaty. These general legal obligations pertaining to the human right to water include: 1) the guarantee that the human right to water could be exercised without any discrimination; 2) the duty that the State has to take deliberate, concrete, and targeted steps towards full realization of the human right to water; 3) the "constant and continuing duty" to move as expeditiously and effectively as possible towards full realization of the human right to water; and 4) the duty of the State to avoid taking any retrogressive measures affecting the human right to water.[19]

On the other hand, States parties to the ICESCR have **specific legal obligations to respect, protect, and fulfill the human right to water**:[20]

1. A State's obligation to *respect* the human right to water requires the State to "refrain from interfering directly or indirectly with the enjoyment of the right to water. The obligation includes, inter alia, refraining from engaging in any practice or activity that denies or limits equal access to adequate water; arbitrarily interfering with customary or traditional arrangements for water allocation; unlawfully diminishing or polluting water, for example through waste from State-owned facilities or through use and testing of weapons; and limiting access to, or destroying, water services and infrastructure as a punitive measure, for example, during armed conflicts in violation of international humanitarian law."[21]

2. A State's obligation to *protect* the human right to water requires that State to "prevent third parties from interfering in any way with the enjoyment of the right to water. Third parties include individuals, groups, corporations and other entities as well as agents acting under their authority. The obligation includes, inter alia, adopting the necessary and effective legislative and other measures to restrain, for example, third parties from denying equal access to adequate water; and polluting and inequitably extracting from water resources, including natural sources, wells and other water distribution systems…Where water services (such as piped water networks, water tankers, access to rivers and wells) are operated or controlled by third parties, States parties must prevent them from compromising equal, affordable, and physical access to sufficient, safe and acceptable water. To prevent such abuses an effective regulatory system must be established, in conformity with the Covenant and this general comment, which

[18] *See* United Nations Committee on Economic, Social and Cultural Rights, *General Comment No. 15: The Right to Water (Arts. 11 and 12 of the Covenant),* E/c.12/2002/11, 20 January 2003, paras. 10-12, full text at https://www.refworld.org/pdfid/4538838d11.pdf (last accessed 1 September 2021).
[19] Id. at footnote 11, at paras. 17-19.
[20] Id. at footnote 11, at para. 20.
[21] Id. at footnote 11, at para. 21.

includes independent monitoring, genuine public participation and imposition of penalties for non-compliance."[22]

3. Finally, the State's obligation to *fulfil* the human right to water "can be disaggregated into the obligations to facilitate, promote and provide. The obligation to facilitate requires the State to take positive measures to assist individuals and communities to enjoy the right. The obligation to promote obliges the State party to take steps to ensure that there is appropriate education concerning the hygienic use of water, protection of water sources and methods to minimize water wastage. States parties are also obliged to fulfil (provide) the right when individuals or a group are unable, for reasons beyond their control, to realize that right themselves by the means at their disposal…The obligation to fulfil requires States parties to adopt the necessary measures directed towards the full realization of the right to water. The obligation includes, inter alia, according sufficient recognition of this right within the national political and legal systems, preferably by way of legislative implementation; adopting a national water strategy and plan of action to realize this right; ensuring that water is affordable for everyone; and facilitating improved and sustainable access to water, particularly in rural and deprived urban areas."[23]

The next section maps the conceptual and normative content of the human right to water, according to its three elements, each of which are subjected to a two-tiered analysis of five cross-cutting human rights obligations, before being examined according to specific interrelated human rights pertaining to each element. This normative and conceptual map provides an architectural framework to operationalize the assessment of a State's compliance with its general and specific legal obligations to respect, protect, and fulfil the human right to water. It will also help provide guidance to private sector partners of the State in ensuring that business activities do not violate the human right to water of individuals, vulnerable groups, and the entirety of the State's population.

## B. Mapping the Human Right to Water: 3 Elements, 5 Cross-Cutting Obligations, and Interrelated Human Rights

International treaties and instruments that elaborate the human right to water share **three elements of the right to water**, namely: 1) ***adequacy*****;** 2) ***multidimensionality*** (e.g. water is not just an economic good but also a social and cultural good); and 3) ***sustainability*** **of the right to water**. Certain **cross-cutting human rights obligations** apply to all three of these elements, such as: 1) the *right of a people to self-determination* (which refers to the free determination of political status and the free pursuit of economic, social, and cultural development);[24] 2) the *prohibition against discrimination* (which refers to differential treatment based on a prohibited ground, with discriminatory intent, that impairs the enjoyment of a human right);[25] 3) the *right of peoples to*

[22] Id. at footnote 11, at paras. 23-24.
[23] Id. at footnote 11, at paras. 25 and 26.
[24] International Covenant on Civil and Political Rights (hereafter, ICCPR), Article 1(1); International Covenant on Economic, Social and Cultural Rights (hereafter, ICESCR), Article 1(1).
[25] ICCPR, Article 2, and ICESCR Article 2.

*freely dispose of their natural resources*, without prejudice to obligations that arise out of international economic cooperation, the principle of mutual benefit, and international law;[26] 4) the right of a people not to be deprived of its own means of *subsistence;*[27] and 5) the *right to equal enjoyment* by all men and women of all civil, political, economic, social and cultural rights set forth in these treaties.[28] Thus, in scrutinizing whether each of the three elements of the human right to water have been complied with by States, there should be a preliminary analysis undertaken to determine whether State measures are consistent with the five cross-cutting human rights obligations on self-determination; non-discrimination; free disposition of natural resources without prejudice to cooperation obligations, mutual benefit, and international law; non-deprivation of means of subsistence; and equality in the enjoyment of all human rights. Thereafter, other interrelated and interdependent human rights that are specifically implicated under each element will also be examined as part of the legal analysis.

The following subsections map out the analysis for determining State compliance with the cross-cutting, as well as specifically interrelated, human rights that are involved in fulfilling each of the three required normative and legal elements of the human right to water:

### 1. Adequacy

The methods for assessing the adequacy of water, as the first element of the human right to water, may vary according to different conditions involved in federal, national, sub-national, regional, or local contexts affecting water demand and water supply. Any State measure that seeks to respect, protect, and/or fulfil the adequacy of water must satisfy the threshold cross-cutting human rights obligations previously discussed. This would entail, for example, preliminarily testing a State measure's impacts on a people's rights to self-determination (specifically on the people's free pursuit of economic, social, and cultural development), non-discrimination, free disposition of natural resources, non-deprivation of means of subsistence, and equality in the enjoyment of all human rights. After this preliminary or threshold determination, the examination of the State measure's consistency with adequacy as the first element of the human right to water, can then be evaluated using the three factors outlined by the Committee on Economic, Social, and Cultural Rights, as well as considering several interrelated human rights that bear on each of these three factors, as set forth below:

#### *1.1 Availability of water*

The *availability* of water will be affected by: 1) the right to the highest attainable standard of physical and mental health;[29] 2) the right to work as well as to just and favorable conditions of work;[30] 3) specific human rights protections requiring availability of the right to water given the needs of vulnerable sectors such as women, children, indigenous communities, racial groups and other ethnic minorities, and persons with disabilities;[31] 4) the right to an adequate standard of

[26] ICCPR, Article 1(2), and ICESCR Article 1(2).
[27] ICCPR, Article 1(2), third sentence, and ICESCR Article 1(2), third sentence.
[28] ICCPR, Article 3, ICESCR Article 3.
[29] ICESCR Article 12.
[30] ICESCR Articles 6 and 7.
[31] ICESCR Article 10, Convention on the Elimination of All Forms of Discrimination Against Women (hereafter, CEDAW), Article 14(2); Convention on the Rights of the Child (hereafter, CRC), Article 24(2)(c); International Labor Organization Convention No. 169 (Indigenous and Tribal Peoples' Convention) [hereafter, ILO Convention 169], Articles 2 and 3; International Convention on

living, which includes the right to food and food security;[32] and 5) baseline civil and political freedoms that are necessary to enable the availability of water, such as the inherent right to life and the prohibition against arbitrary deprivation of life, the right to liberty and security of person, the right to humane treatment and the dignity of the human person for all persons deprived of their liberty, the prohibition against imprisonment for non-fulfillment of contractual obligations, the right to recognition as a person before law, the right to hold opinions without interference, the right to freedom of expression, assembly, and association, as well as the right to political participation in public affairs.[33] Determining the sufficiency and continuity of water supply for personal and domestic uses also depends on assessing the quantity of water that safeguards a community's rights to health, to work and just and favorable conditions of work, an adequate standard of living, and which are appropriate to specific vulnerabilities and expected protections for such vulnerabilities. The sufficiency and continuity of water supply requires a constellation of public measures and private actions (whether through direct State provisioning, or through various models of public-private partnerships to marshal water sources and design water distribution and sanitation systems for populations[34]) that cannot be effectively implemented and delivered if a State does not guarantee basic civil and political rights and freedoms against the arbitrary deprivation of life, the right to liberty and security of the human person, recognition as persons before law, rights pertaining to public deliberative spaces and interactions (e.g. freedoms of expression, assembly, association, belief, and political participation).[35]

### *1.2 Quality of water*

The quality of water and its safety for human use throughout various activities, necessarily involves inquiry into the human right to the highest attainable standard of physical and mental health,[36] as well as the human right to a healthy and sustainable environment that has been recently recognized at the United Nations, as well as in international jurisprudence.[37] Water quality determination also implicates the human right of all persons to enjoy the benefits of scientific

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the Elimination of All Forms of Racial Discrimination (hereafter ICERD), Article 2(2); Convention on the Rights of Persons with Disabilities (hereafter, CRPD), Article 28(2)(a).

[32] ICESCR Article 11.

[33] ICCPR, Articles 6, 9, 10, 11, 16, 19, 21, 22, 25.

[34] *See among others* Philippe Marin, *Public-Private Partnerships for Urban Water Utilities: A Review of Experiences in Developing Countries,* 2009, World Bank, full text at https://openknowledge.worldbank.org/handle/10986/2703 (last accessed 1 September 2021); United Nations Human Rights Council, Report by Leo Heller, UN Special Rapporteur on the human rights to water and sanitation, *Privatization and the Human Rights to Water and Sanitation,* UN Doc. A/75/208, full text at https://www.ohchr.org/Documents/Issues/Water/10anniversary/Privatization_EN.pdf (last accessed 1 September 2021); United Nations General Assembly, *Human right to safe drinking water and sanitation,* A/70/203, 27 July 2015, full text at https://undocs.org/A/70/203 (last accessed 1 September 2021).

[35] United Nations Human Rights Council, *Human rights to water and sanitation in spheres of life beyond household with an emphasis on public spaces,* A/HRC/42/47, 10 July 2019, full text at https://undocs.org/A/HRC/42/47 (last accessed 1 September 2021).

[36] ICESCR Article 12.

[37] United Nations General Assembly, *Human rights obligations relating to enjoyment of a safe, clean, healthy, sustainable environment,* A/73/188, 19 July 2018, paras. 22-26, full text at https://undocs.org/A/73/188 (last accessed 1 September 2021); *Certain Activities Carried Out by Nicaragua in the Border Area (Costa Rica v. Nicaragua), Compensation Owed by the Republic of Nicaragua to the Republic of Costa Rica,* Judgment of 2 February 2018, International Court of Justice, full text at https://www.icj-cij.org/public/files/case-related/150/150-20180202-JUD-01-00-EN.pdf (last accessed 1 September 2021); *The Environment and Human Rights (State Obligations in relation to the Environment in the Context of the Protection and Guarantee of the Rights to Life and to Personal Integrity: Interpretation and Scope of Articles 4(1) and 5(1) of the American Convention on Human Rights),* Advisory Opinion OC-23/18, Inter-American Court of Human Rights, 15 November 2017, full text at https://www.corteidh.or.cr/docs/opiniones/seriea_23_ing.pdf (last accessed 1 September 2021).

progress and its applications,[38] which includes material results from the applications of scientific research, scientific knowledge and information directly deriving from scientific activity, as well as the role of science in forming critical and responsible citizens who are able to participate fully in a democratic society.[39] The role of science in water quality assessments and standards also entails the right of individuals, groups, and communities, to participate in scientific progress and enjoy the freedom indispensable for scientific research.[40]

*1.3 Accessibility of water*

Precisely because the accessibility of water involves physical, economic, non-discriminatory, and informational aspects, there is a much broader scope of interrelated human rights bearing on the accessibility of water. Physical accessibility, for example, involves civil and political rights to freedom of movement and choice of residence,[41] as well as rights to privacy and the security of one's person,[42] inasmuch as other economic, social and cultural rights are also necessary to ensure the physical accessibility of water, such as, among others, the right to just and favorable conditions of work (especially as they relate to water accessibility in the workplace),[43] the right to education,[44] the right to participate in cultural life and related cultural rights,[45] and gender equality.[46] The economic accessibility of water through affordability for all involves the right to non-deprivation of means of subsistence;[47] the duty of States Parties under the International Covenant on Economic, Social and Cultural Rights to "take steps, individually and through international assistance and co-operation, especially economic and technical, to the maximum of its available resources, with a view to achieving progressively the full realization of the rights recognized in the present Covenant by all appropriate means, including particularly the adoption of legislative measures", including steps that involve regulation of business and market activities that could impact the economic accessibility of water and its affordability throughout the civilian population.[48] The economic accessibility or affordability of water also involves an examination of a State's ability to respect, protect, and fulfil the rights to social security, related social insurance, and social protection measures specifically responsive to the needs of vulnerable

[38] ICESCR, Article 15(1)(b).
[39] United Nations Committee on Economic, Social, and Cultural Rights, *General Comment No. 25 (2020) on science and economic, social and cultural rights,* E/C.12/GC/25, 30 April 2020, para. 8, full text at https://tbinternet.ohchr.org/_layouts/15/treatybodyexternal/TBSearch.aspx?Lang=en&TreatyID=9&DocTypeID=11 (last accessed 1 September 2021).
[40] Id. at footnote 27, at para. 15.
[41] ICCPR Article 12.
[42] ICCPR Articles 9 and 17.
[43] ICESCR Article 7(b) (on safe and healthy working conditions).
[44] ICESCR Article 13.
[45] ICESCR Article 15(1)(a). *See also* 1971 UNESCO Ramsar Convention on Wetlands of International Importance, 2001 UNESCO Convention on the Protection of Underwater Cultural Heritage, UNESCO and WHO "Water and Culture: The International Decade for Water 2005-2015", at https://www.who.int/water_sanitation_health/Water&cultureEnglishv2.pdf (last accessed 1 September 2021).
[46] Convention on the Elimination of All Forms of Discrimination Against Women, Article 14(2).
[47] ICESCR Article 2(2), third sentence.
[48] ICESCR Article 2(1). *See also* United Nations Committee on Economic, Social and Cultural Rights, *General Comment No. 24 (2017) on State obligations under the International Covenant on Economic, Social and Cultural Rights in the context of business activities,* E/C.12/GC/24, 10 August 2017, full text at https://www.refworld.org/docid/5beaecba4.html (last accessed 1 September 2021).

populations,[49] as well as how States understand and implement human rights (through the human right to development) throughout their development decision-making activities that ultimately affect the pricing of water and sanitation services for their populations.[50] Finally, informational accessibility requires State compliance with human rights to information and public participation, including the transparency and accountability of governmental decision-making.[51]

### 2. Multidimensionality

This second element of the human right to water recognizes that water is not to be viewed solely as an economic resource, but also as a social and cultural good enjoyed by individuals, communities, and populations of States. This perspective of recognizing water as a social and cultural good, in turn, introduces further State obligations under international human rights law.[52] States are legally required to respect any people's right to self-determination, which includes the free pursuit of economic, social, and cultural development.[53] As a social good, water has individual and community significance, relational importance, and collective value.[54] States have a duty to ensure preservation of social goods, especially as these relate to individual and collective rights to self-determination; ensuring the progressive realization of economic, social and cultural rights; and as part of environmental preservation of natural resources and public commons.[55] As a cultural good – and one that is inextricably tied to communal identity, historical and intergenerational continuity of the way of life of indigenous peoples,[56] in particular – water

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[49] ICESCR Article 9. *See also* United Nations Committee on Economic, Social and Cultural Rights, *General Comment No. 19 (2007), The right to social security,* E/C.12/GC/19, 4 February 2008, full text at https://www.refworld.org/docid/47b17b5b39c.html (last accessed 1 September 2021); United Nations Human Rights Council, *Report of the Special Rapporteur on the human right to safe drinking water and sanitation: affordability,* A/HRC/30/39, 5 August 2015, full text at https://undocs.org/A/HRC/30/39 (last accessed 1 September 2021).

[50] *See* 1986 United Nations Declaration on the Right to Development, UN General Assembly Resolution 41/128, 4 December 1986, full text at https://www.ohchr.org/en/professionalinterest/pages/righttodevelopment.aspx (last accessed 1 September 2021); United Nations Draft Convention on the Right to Development, A/HRC/WG.2/21/2, 17 January 2020, full text at https://undocs.org/A/HRC/WG.2/21/2 (last accessed 1 September 2021). *For an example of human rights-based approaches to water affordability, see* Jessica J. Goddard, Isha Ray, Carolina Balazs, *Water affordability and the human right to water implications in California,* 16 PLOS ONE 1(2021); Andres, Luis A.; Thibert, Michael; Lombana Cordoba, Camilo; Danilenko, Alexander V.; Joseph, George; Borja-Vega, Christian, *Doing More with Less : Smarter Subsidies for Water Supply and Sanitation*, 2019, World Bank, Washington, DC, full text at https://openknowledge.worldbank.org/handle/10986/32277 (last accessed 1 September 2021); Magdalena Sepulveda and Carla Nyst, *The Human Rights Approach to Social Protection,* Ministry of Foreign Affairs of Finland, 2012, full text at https://www.ohchr.org/documents/issues/epoverty/humanrightsapproachtosocialprotection.pdf (last accessed 1 September 2021).

[51] Universal Declaration of Human Rights, Articles 21 and 28; ICCPR Articles 2, 19, and 25; ICESCR Articles 2, 16; 2030 Agenda for Sustainable Development, Sustainable Development Goal 16 (Just, Peaceful, and Inclusive Societies).

[52] *See* WILLIAM F. FELICE AND DIANA FUGUITT, HUMAN RIGHTS AND PUBLIC GOODS: THE GLOBAL NEW DEAL (Rowman & Littlefield, 2020).

[53] ICCPR Article 1, ICESCR Article 1.

[54] 2017 Bellagio Principles on Valuing Water, full text at https://sustainabledevelopment.un.org/content/documents/15591Bellagio_principles_on_valuing_water_final_version_in_word.pdf (last accessed 1 September 2021).

[55] United Nations General Assembly Resolution 64/292, *The Human Right to Water and Sanitation,* A/RES/64/292, 28 July 2010, full text at https://documents-dds-ny.un.org/doc/UNDOC/GEN/N09/479/35/PDF/N0947935.pdf?OpenElement (last accessed 1 September 2021).

[56] *See among others* 2007 United Nations Declaration on the Rights of Indigenous Peoples, Articles 23-29 (on rights to , and Article 32(2) (pertaining to free and informed consent to any project affecting their lands, and other resources, including for the exploitation of mineral, water, or other resources), full text at https://www.un.org/development/desa/indigenouspeoples/wp-content/uploads/sites/19/2018/11/UNDRIP_E_web.pdf (last accessed 1 September 2021); ICCPR Article 27 (persons belonging to ethnic, religious, or linguistic minorities shall not be denied the right to enjoy their own culture); ICESCR Article 11 (right to an adequate standard of living) and Article 15(1)(a) (right to take part in cultural life); ILO Convention No. 169, Article 7 (right to

has been viewed as intrinsic to the inherent rights to life, health, liberty, the cultural integrity, and human dignity of indigenous peoples.[57] This is precisely the same recognition of water's multidimensionality that animates Sustainable Development Goal 6 (Clean Water and Sanitation) under the United Nations' 2030 Agenda for Sustainable Development.[58]

Similar to the first element of adequacy of water, the second element on the multidimensionality of water should also be preliminarily assessed from the prism of the five cross-cutting human rights obligations previously discussed (e.g. right to self-determination, prohibition against discrimination, the right of peoples to freely dispose of their natural resources, the right to non-deprivation of means of subsistence, and the right to equal enjoyment). When water is viewed and protected not just as an economic resource, object, or commodity, but as a social and cultural good that has relational value, significance for autonomy, and inherent linkages to the identity of peoples (especially indigenous peoples), the State bears the obligation to ensure that how it crafts its policies and measures affecting water does not in any way impede, erode, dilute, erase, or eliminate the rights of peoples to their identities, beliefs, cultures, religions, personhood, and ways of life,[59] which are themselves non-derogable rights under international human rights law.

### 3. Sustainability

Finally, this third element of the human right to water encompasses the perspective of ensuring the protection and preservation of intergenerational rights and interests under international human rights law. The sustainability of water must also be preliminarily investigated in terms of the five cross-cutting obligations (e.g. the right to self-determination, the prohibition against discrimination, the right to free disposal of natural resources subject to the principle of mutual benefit and international law, the right against non-deprivation of means of subsistence, and the right to equal enjoyment of all human rights). Beyond these cross-cutting principles, however, specific human rights that are relevant to safeguarding the sustainability of water include

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decide priorities for development as it affects their lives, beliefs, spiritual well-being, economic, social and cultural development), Article 13 (rights of ownership and possession over lands traditionally occupied, including the total environment within such lands), Article 15 (rights to natural resources and to participate in the use, management, conservation of resources). *See also Case of the Mayagna (Sumo) Awas Tingni Community v. Nicaragua,* Judgment on the Merits, Reparations, and Costs, 31 August 2001, Inter-American Court of Human Rights, para. 149 ("The close ties of indigenous people with the land muts be recognized and understood as the fundamental basis of their cultures, their spiritual life, their integrity, and their economic survival. For indigenous communities, relations to the land are not merely a matter of possession and production but a material and spiritual element which they must fully enjoy, even to preserve their cultural legacy and transmit it to future generations."), full text at https://www.corteidh.or.cr/docs/casos/articulos/seriec_79_ing.pdf (last accessed 1 September 2021).

[57] *Centre for Minority Rights Development (Kenya) and Minority Rights Group (on behalf of Endorois Welfare Council) v. Kenya,* African Commission on Human and Peoples' Rights, Decision on Merits, 15 November 2009, paras. 156, 157, 173 ("…the African Commission is of the view that Endorois culture, religion, and traditional way of life are intimately intertwined with their ancestral lands – Lake Bogoria and the surrounding area. It agrees that Lake Bogoria and the Monchongoi Forest are central to the Endorois' way of life and without access to their ancestral land, the Endorois are unable to fully exercise their cultural and religious rights, and feel disconnected from their land and ancestors…the heart of indigenous rights [is] the right to preserve one's identity through identification with ancestral lands, cultural patterns, social institutions, and religious systems….denying the Endorois access to the Lake is a restriction on their freedom to practice their religion, a restriction not necessitated by any public security interest or justification…allowing the Endorois to use the land to practice their religion would not detract from the goal of conservation or developing the area for economic reasons.").

[58] Agenda 2030 for Sustainable Development, SDG 6. *See also* Imad Antoine Ibrahim, *Water as a human right, water as a commodity: can SDG6 be a compromise?,* The International Journal of Human Rights (9 July 2021), at https://www.tandfonline.com/doi/abs/10.1080/13642987.2021.1945582?journalCode=fjhr20 (last accessed 1 September 2021).

[59] ICCPR Articles 18, 26, and 27, in relation to Article 4.

the human right to a healthy environment (which encompasses legal duties of States to observe the customary international law prohibition against causing transboundary harm),[60] and human rights principles relating to accountable governance, community participation in public affairs, and transparency in governmental decision-making that affects the enjoyment, protection, and fulfilment of the human right to water.[61] As discussed by one of the United Nations Special Rapporteurs on the Right to Water, "the concept of sustainability [is] non-dissociable from human rights law, in particular from the scope and content of the International Covenant on Economic, Social and Cultural Rights….sustainability [is] a human rights principle fundamental for the realization of human rights."[62] Significantly, the Special Rapporteur discussed sustainability as an element of the human right to water according to the following terms:

> "20. Based on these human rights principles and taking into account the different dimensions of sustainable development, the Special Rapporteur puts forward a holistic understanding of *sustainability as the direct counterpart to retrogression.* In order for services to be sustainable, they must be available and accessible to everyone on a continuous and predictable basis, without discrimination. There must be "permanent beneficial change" that flows from quality services and sustained behavioural change, or, in human rights terms, progressive realization towards fully realizing the human rights to water and sanitation for everyone. Once services and facilities have been improved, the positive change must be maintained and slippages or retrogression must be avoided. Services must be available for present and future generations and the provision of services today should not compromise the ability of future generations to realize the human rights to water and sanitation (A/HRC/15/31/Add.1, para. 65).

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[60] United Nations Human Rights Council, *Right to a healthy environment: good practices, Report of the Special Rapporteur on the issue of human rights obligations relating to a safe, clean, healthy, and sustainable environment,* A/HRC/43/53, 30 December 2019, paras. 11 and 13 ("The right to a healthy environment is explicitly included in regional treaties ratified by 126 States. This includes 52 States that are parties to the African Charter on Human and Peoples' Rights, 45 States that are parties to the Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters (Aarhus Convention), 16 States that are parties to the Additional Protocol to the American Convention on Human Rights in the Area of Economic, Social and Cultural Rights (Protocol of San Salvador) and 16 States that are parties to the Arab Charter on Human Rights. As at 1 December 2019, five States had ratified the Regional Agreement on Access to Information, Public Participation and Justice in Environmental Matters in Latin America and the Caribbean (Escazú Agreement)... In total, more than 80 per cent of States Members of the United Nations (156 out of 193) legally recognize the right to a safe, clean, healthy and sustainable environment."), full text at https://undocs.org/A/HRC/43/53 (last accessed 1 September 2021). On the international legal prohibition against causing transboundary harm, see *Trail Smelter Arbitration (United States v. Canada),* Awards of 16 April 1938 and 11 March 1941, full text at https://legal.un.org/riaa/cases/vol_III/1905-1982.pdf (last accessed 1 September 2021); *Case Concerning the Gabcikovo-Nagymaros Project (Hungary v. Slovakia),* International Court of Justice, Judgment of 25 September 1997, full text at https://www.icj-cij.org/public/files/case-related/92/092-19970925-JUD-01-00-EN.pdf (last accessed 1 September 2021).

[61] Universal Declaration of Human Rights, Articles 21 and 28; ICCPR Article 2; ICESCR Article 2; United Nations Human Rights Council, *The role of good governance in the promotion and protection of human rights,* A/HRC/RES/37/6, 9 April 2018, para. 3 ("Recognizes that international human rights law provides a set of standards to guide governing processes and to assess performance outcomes, and in this regard stresses that good governance is necessary for establishing and maintaining an environment conducive to the promotion and protection of human rights"), full text at https://undocs.org/A/HRC/RES/37/6 (last accessed 1 September 2021).

[62] United Nations Human Rights Council, *Report of the Special Rapporteur on the human right to safe drinking water and sanitation, Catarina de Albuquerque,* A/HRC/24/44, 11 July 2013, at para. 9, full text at https://undocs.org/A/HRC/24/44 (last accessed 1 September 2021).

21. Sustainability is more than mere reliability or functionality, *and requires a balance of its different dimensions.* Water and sanitation must be provided in a way that respects the natural environment; finite resources must be protected and overexploitation cannot occur. Likewise, the economic and social dimensions have to be balanced: while service provision relies on raising sufficient revenue, this must be achieved in such a way as to ensure affordability for all people in society, including those living in poverty.

22. The provision of services and systems should be properly planned in a strategic manner, such that ongoing assessments of risks across the entire infrastructure are conducted. Services and systems must be appropriately financed for their full life cycle, including for operation, maintenance, repair and replacement. Technology must be appropriate for the given need and must also be appropriately maintained.

23. To enable the sustainable provision of services, a number of factors within and beyond the water and sanitation sector must be reinforced, in particular, *accountable governance*. Water and sanitation services must be embedded in a sound legislative policy and regulatory framework. Institutions involved in the water and sanitation sectors must be responsive and accountable for their actions, and decisions must be participatory and transparent. All groups and individuals concerned and all relevant stakeholders must be provided with genuine opportunities to meaningfully participate and must be empowered in these processes."[63]

Unsurprisingly, the foregoing human rights norms and related principles are reflected in Sustainable Development Goal (SDG) 6 (*Clean Water and Sanitation*). SDG 6 operationalizes the sustainability element of the human right to water by calling for States to implement and take positive actions to realize the following targets:

"6.1 By 2030, achieve universal and equitable access to safe and affordable drinking water for all.

6.2 By 2030, 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.

6.3 By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally.

6.4 By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity.

[63] Id. at paras. 20-23. Italics added.

6.5 By 2030, implement integrated water resources management at all levels, including through transboundary cooperation as appropriate.

6.6 By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes.

6.a By 2030, expand international cooperation and capacity-building support to developing countries in water- and sanitation-related activities and programmes, including water harvesting, desalination, water efficiency, wastewater treatment, recycling and reuse technologies.

6.b Support and strengthen the participation of local communities in improving water and sanitation management."

The next section applies the conceptual map of the three elements of the human right to water, and the two-tiered analysis beginning with the five cross-cutting obligations of States in relation to all three elements, and the interrelated human rights obligations of States particular to each element. Both the Water Insecurity Assessment in Section 3.1 and the Water Governance Assessment in Section 3.2 involve differential and interdisciplinary approaches that span each of the three elements of the human right to water, as well as the five cross-cutting obligations and the specific interrelated human rights involved in each element.

### C. A Broad Rights-Based Approach Paradigm for Assessing the Human Right to Water in Water Inadequacy and Water Governance Assessments

Mapping both the State's obligations to respect, protect, and fulfil the human right to water, as well as the conceptual and normative legal elements of the human right to water, enables State decision-makers (and their private sector partners) to identify the nature of challenges to water security and water governance, as well as to formulate responses to these challenges that would be consistent with their legal obligations under international human rights law (and related domestic law). This is a cohesive approach paradigm that could be used for either conducting a human rights audit or human rights due diligence process,[64] to determine the human rights-consistency of policies, measures, or actions taken by States (and/or their private sector partners) in relation to water and sanitation activities and ancillary services.

This broad rights-based approach paradigm, which merges quantitative with qualitative methods into a mixed methods approach, introduces a different strategy to assess implementation or realization of the human right to water. The rights-based approach paradigm does not follow the trend of current nascent proposals that focus on subjectively assigning compliance indicators that focus more on the structure, conduct, and outcomes of water and sanitation services provision.[65] Instead, our broad rights-based approach's paradigm's locus of inquiry covers the full

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[64] *See* Diane A. Desierto, *Shifting Sands in the International Economic System: 'Arbitrage' in International Economic Law and International Human Rights,* 49 Georgetown Journal of International Law (2018), pp. 1019-1115.

[65] *See for example* Jennifer Schiff, *Measuring the human right to water: An assessment of compliance indicators,* 6 WIREs Water 1 (January/February 2019), full text at https://wires.onlinelibrary.wiley.com/doi/abs/10.1002/wat2.1321 (last accessed 1 September 2021); Jeanne Luh, Rachel Baum, Jamie Bartram, *Equity in water and sanitation: Developing an index to measure progressive realization of the human right,* 216 International Journal of Hygiene and Environmental Health 6 (November 2013), pp. 662-671; Jon Morris, *Developing and exploring indicators of water sustainable development,* 5 Heliyon 5 (May 2019), pp. e01778; Anna

spectrum of upstream (natural resource/water source) activities and downstream (water distribution and water allocation) activities, enabling the State or private sector actor to conduct their compliance or audit queries consistently with the actual legal content of the human right to water – from its *requisite elements* of adequacy, multidimensionality, and sustainability; to *cross-cutting obligations* (self-determination, non-discrimination, free disposition of natural resources subject to mutual benefit and international law, non-deprivation of means of subsistence, and equal enjoyment of human rights); to the *interrelated rights* that are specifically implicated when the elements of adequacy, multidimensionality, and sustainability are investigated in water inadequacy situations and water governance issues.

### 1. Assessing the Human Right to Water in the Water Insecurity Assessment

The **Water Insecurity Assessment in Section 3.1** usefully describes various situations where challenges arise to any, some, or all of the elements of the human right to water and their corresponding cross-cutting obligations and specific interrelated human rights. **In the analysis below, we refer to the example of the law of the United States of America to contextualize the sufficiency or insufficiency of governmental responses to water insecurity situations, and pose questions applying our broad rights-based approach paradigm for assessing the human right to water.** The United States certainly faces differing legal and governance conditions than that of other global contexts--especially given the fact that companies often seek contexts in which their water stewardship obligations *have not* been articulated. However, we find it helpful that the United States context is by far the *most evolved* in terms of its legislation and jurisprudential practices on water and related rights. We can leverage its evolution to provide the best benchmark for our study.

#### *1.1 Green Water (GW) Insecurity*

This situation involves the incommensurability of received rainfall to a given location (stakeholder) on a given time step (month). Green water scarcity (GW-) refers to situations where rainfall is insufficient, as an indication of aridity, resulting in water-scarce locations (such as industrial or community locations) having to increase dependence on blue water sources (e.g. irrigation from surface or groundwater), while locations that do not face this scarcity can still rely on rain-fed irrigation. This is a clear situation where governmental policymakers and their private sector partners in water and sanitation services could benefit from applying a broad rights-based approach paradigm for assessing the human right to water, beginning with scrutinizing how governmental policies and operational measures anticipate, plan for, and comply with the elements of the human right to water, namely, adequacy, multidimensionality, and sustainability.

In the United States, the federal government generally defers to individual states' primary jurisdiction over water allocation for drought events, with federal initiatives generally limited to monitoring and funding.[66] Individual state-level initiatives depend on ownership of water

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Mergoni, Giovanna D'Inverno, Laura Carosi, *A composite indicator for measuring the environmental performance of water, wastewater, and solid waste utilities,* Utilities Policy, 11 August 2021, full text at https://doi-org.proxy.library.nd.edu/10.1016/j.jup.2021.101285 (last accessed 1 September 2021).

[66] In 2013, the Obama Administration assembled a National Drought Resilience Partnership (NDRP) that aimed to coordinate federal drought policies, facilitate access to drought assistance, and improve information-sharing to help with drought preparedness. Requests since the 1980s that the President declare a drought disaster or emergency were made under the Robert T.

resources. United States law follows the water resources as a "Public Trust", where water resources belong to the public, such that property owners cannot 'own' such resources, but may have certain rights to use, sell, or divert water resources. The extent by which a property owner can exercise these rights depends on state law, with different use allocation systems conferring such water rights to private persons under: 1) the riparian doctrine; 2) the prior appropriation doctrine; or 3) a hybrid of both doctrines.[67] California's experience with the 2012-2016 drought revealed "California's lack of a coherent water accounting system. Although water systems are connected by conveyance networks and hydrologic processes, these water systems are governed and regulated independently with separate water accounting systems. During the drought, legislators and state regulators directed several efforts to incrementally improve water accounting policies."[68] Other scholars subsequently identified the following policy reform areas for California's state-level management of water resources and responses to drought:

> "…California's water monitoring systems are primitive, with significant gaps in critical information. The resulting uncertainty creates inefficiencies, reduces transparency, and fosters conflict. California urgently needs to modernize water accounting to support transparent decision-making, both for drought curtailments and for water trading. Adopting new technologies (e.g. automated gaging, remote sensing, and improved hydrologic models) to monitor and predict water flow and quality is one piece of the equation. The other piece is requiring more accurate measurement and timely reporting of water diversions and discharges by major water-right0holders. Today, senior surface water-rights holders and those with riparian water rights must only report diversions – the amount of water they use on farms or deliver to urban customers – every three years….And outside of urban areas, no water diverters are required to report discharges – or the amount of water returned to streams after use – even though this constitutes a significant share of supplies on some rivers….
>
> The water board's water curtailment actions in 2014 were highly controversial. Many water users questioned the fairness of curtailments, which relied solely on the seniority of water rights and failed to consider the efficiency of use and other factors. Critics also argued that the board did not identify the amounts require to meet urgent public health and safety needs or the needs of the environment…California cities and farms must also make further progress in

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Stafford Disaster Relief and Emergency Assistance Act (42 U.S.C. §§ 5121 et seq.). Congress has also enacted P.L. 114-322 (Water Infrastructure Improvements for the Nation Act), which, among others, expanded reclamation support for water storage projects and changed operations of the California Central Valley Project. Congress also enacted USACE authorities to assess reservoir operations during drought (P.L. 113-121, § 1046), investigate forecast-formed reservoir operations (P.L. 115-270, §1222), and expand water conservation opportunities at its projects (P.L. 114-322, §§ 1116-1117). Congress also expanded the Environmental Protection Agency loan eligibility under its Water Infrastructure Finance and Innovation Act (WIFIA) program to include drought-related projects (P.L. 114-322, § 5008). Finally, under the 2018 farm bill (P.L. 115-334, Title II), Congress amended several USDA programs to address drought resiliency and water conservation.

[67] *See* Water Systems Council, *Who Owns the Water? A Summary of Existing Water Rights Laws,* August 2016, full text at http://nationalaglawcenter.org/wp-content/uploads/2017/03/Who-Owns-the-Water-2016-Update-FINAL.pdf (last accessed 1 September 2021).

[68] Jay Lund, Josue Medellin-Azuara, John Durand, and Kathleen Stone, *Lessons from California's 2012-2016 Drought,* 144 Journal of Water Resources Planning and Management 10 (October 2018), full text at https://ascelibrary.org/doi/full/10.1061/%28ASCE%29WR.1943-5452.0000984 (last accessed 1 September 2021).

managing demand and developing reliable supplies. Significant improvements are possible in the following areas:

- Reduce urban landscape irrigation. Landscape irrigation accounts for roughly half of urban water use….Local agencies can use financial incentives (e.g. rebates) and conservation-oriented water rates to encourage customers to install more efficient irrigation systems and to replace thirsty lawns with more California-friendly plants…

- Improve conservation-oriented pricing in cities. Water pricing – particularly tiered rates that charge higher per-gallon rates for greater water use – are important to promote urban conservation….very few of California's urban utilities had robust drought pricing systems in place last year…

- Strengthen water markets…California's water market has helped both farms and cities cope with droughts, but this market can be strengthened with a more transparent approval process and strategic investments in monitoring and conveyance infrastructure.

- Continue diversifying urban supplies. Local agencies should continue to make investments in non-traditional supplies (such as recycled water and stormwater capture projects), interconnections, and storage…

- Manage groundwater. As this drought has shown, groundwater is California's most important drought reserve; it is critical to the health of the agricultural economy. Yet decades of overuse – most notably in the southern Central Valley – have depleted many groundwater basins and reduced their value for drought management. The new groundwater law holds great promise for managing future droughts. But the timeline is long, giving basins more than 25 years to attain sustainability. The state could support local efforts to expedite this process through additional legislation (e.g. to facilitate the allocation of pumping rights and trading), technical assistance (particularly in areas without a history of groundwater management), help in organizing local agencies, and funding…

- Prevent waste and unreasonable use. The State Water Resources Control Board should exercise its constitutional authority to ensure that California's scarce water resources are "put to beneficial use to the fullest extent of which they are capable". This might include encouraging changes in the timing of water diversions so that they best suit the needs of fish and wildlife…Where appropriate, the board could also scrutinize individual users whose diversions harm other water users or the environment, and determine whether local restrictions on water trading constitute unreasonable use …

State and federal fish and wildlife agencies – working closely with water managers – undertook great efforts to reduce the environmental harm of this drought. But

> most efforts were made without advanced planning and without strong scientific input or review. Few investments were made in advance to reduce drought impacts; there has been limited monitoring of the effectiveness of emergency measures; and no strategy has been developed for recovering species when the drought ends. Failure to protect native species during drought can have costly long-term regulatory consequences, with new restrictions that limit future water supply and hydropower…."[69]

The foregoing fissures reveal the dearth of coherent United States federal and state-wide policies that respond to the adequacy, multidimensionality, and sustainability elements of the human right to water. California's 2012-2016 drought revealed that there were legal, institutional, and governance issues that detracted from ensuring the adequacy of water across differentiated communities and users, whether arising from issues on the availability of water itself (including the absence of a transparent water accounting and consolidated water monitoring system) or the accessibility of water across various industrial, rural, urban, and household users (especially when water curtailment actions relied solely on seniority of water rights, without considering human rights vulnerabilities, public health needs, and environmental needs). The element of sustainability in the human right to water also did not appear to be reflected in California's water management and allocation policies, since many efforts to reduce environmental harm "were made without advanced planning and without strong scientific input or review". There were clear deficits in accountable governance, community participation, and transparency in governmental decision-making in California's responses to the 2012-2016 drought.

In formulating responses to address the needs of green water scarce locations, governmental decision-makers and their private sector partners in water and sanitation services (upstream or downstream activities) could benefit from a human rights due diligence process that examines how their responses satisfy the elements of adequacy, multidimensionality, and sustainability in the human right to water. They could inquire if the response, policy, or measure satisfies each element by: 1) determining how it addresses cross-cutting obligations (peoples' rights to self-determination, the right to non-discrimination, the right to free disposition of natural resources subject to mutual benefit and international law, the right against non-deprivation of subsistence means, as well as the right to equal enjoyment of human rights); 2) and how it satisfies (or does not satisfy) specifically interrelated human rights that apply to each element.

Taking the example of water curtailment decisions, the decision-making analytical matrix for evaluating water curtailment as the response to green water scarcity, for example, could be rudimentarily sketched according to the following:

**GREEN WATER SCARCITY (GW-) ANALYTICAL AND LEGAL MATRIX**

| Two-Tiered TEST | ADEQUACY | MULTIDIMENSIONALITY | SUSTAINABILITY |
|---|---|---|---|

[69] Ellen Hanak, Jay Lund, Jeffrey Mount, Peter Moyle, Brian Gray, Barton Thompson, and Caitrin Chappelle, *Policy Priorities for Managing Drought,* Public Policy Institute of California, March 2015, full text at https://www.ppic.org/publication/policy-priorities-for-managing-drought/ (last accessed 1 September 2021).

| | | | |
|---|---|---|---|
| **A. Does proposed water curtailment action or plan comply with the State's Cross-Cutting Obligations?** | Availability of Water<br><br>Water Quality<br><br>Accessibility of Water | Water as a Social Good<br><br>Water as a Cultural Good | Protection and Preservation of Intergenerational Rights and Interests<br><br>Non-Retrogression Obligation |
| 1. Right to Self-Determination<br><br>2. Non-Discrimination<br><br>3. Free disposition of natural resources<br><br>4. Non-deprivation of subsistence means<br><br>5. Right to equal enjoyment of human rights | How does the water curtailment action or plan address adequacy of water without violating any of the five cross-cutting obligations? | How does the water curtailment action or plan recognize that water is not just a commodity or economic resource, but is a social good and cultural good, without violating any of the five cross-cutting obligations? | How does the water curtailment action or plan recognize the sustainability of water, without violating any of the five cross-cutting obligations? |
| **B. Does the proposed water curtailment action or plan comply with specifically interrelated human rights?** | Availability of Water:<br><br>1. Rights to health<br><br>2. Rights to work and just and favorable conditions of work<br><br>3. Specific human rights protections for vulnerable groups<br><br>4. Right to an adequate standard of living<br><br>5. Baseline civil and political freedoms | Specific human rights to preservation and protection of social and cultural goods, including environmental preservation of natural resources and public commons, and indigenous peoples' rights to cultural integrity, identity, and human dignity | Human right to a healthy environment and State duties to prohibit causing transboundary harm<br><br>Human rights-related legal principles on accountable governance, transparency in governmental decision-making, community participation in public affairs,<br><br>ICESCR Article 2 progressive realization and non-retrogression obligations<br><br>Are SDG 6 targets hampered by the |

| | | | |
|---|---|---|---|
| | Water Quality:<br>1. Right to health<br>2. Right to healthy environment<br>3. Right to benefits of scientific progress and applications<br>Accessibility of Water:<br>1. Physical accessibility: civil and political rights to freedom of movement and choice of residence, privacy, security, and rights to just and favorable conditions of work, education, cultural participation, and gender equality<br>2. Economic accessibility: affordability through non-deprivation of means of subsistence, ICESCR Article 2(1), business and human rights, rights to social security, social insurance, and social | | proposed water curtailment plan? |

| | | | |
|---|---|---|---|
| | protection measures<br><br>3. Informational accessibility: human rights to information and public participation, transparency and accountability in governmental decision-making | | |

Similar analytical and legal matrices could also be constructed to evaluate and assess proposed responses to green water excess (GW+), where the excessive input of green water (over abundant rainfall) could prevent stakeholders from functioning properly, such as due to landscape modifications that interfere with natural drainage and infiltration mechanisms and in turn, escalate flooding risks. In the United States, tort and administrative law would be involved in regulating the conduct of individuals and other stakeholders who respond to green water excess. For example, under the Clean Water Act, any person whose negligence causes a discharge of pollutants from a point source into waters of the United States would be subject to criminal prosecution and face a fine of up to $25,000 per day of violation and imprisonment for one year [133 U.S.C. § 1319(c)(1)]. Under the Clean Water Act, the Environmental Protection Agency has broad authority to assess and address risks to the United States' water quality and the resilience of water quality infrastructure. (Clean Water Act § 101, 33 U.S.C. § 125(a)). The EPA also has enforcement powers to issue compliance orders, and can ask a court for "appropriate relief" to remedy violations of the Clean Water Act, including through administrative or judicial enforcement actions. (Clean Water Act § 309, 33 U.S.C. § 1319). Clean Water Act enforcement actions involving industrial entities could include vulnerability assessments where facility-specific circumstances make that appropriate (e.g. proximity to water bodies that may be impacted by flooding, storm surge, sea level rise; capacity of the collection or treatment system to handle more frequent or more intense precipitation; and possible downstream impacts). In certain enforcement actions, the EPA may require as part of the remedy that regulated entities implement resilience and adaptation measures based on these vulnerability assessments and the expected useful life of the water infrastructure in question to ensure long-term compliance with the Clean Water Act. One can readily anticipate that any such proposed compliance orders or enforcement actions relating to green water excess situations could also be analytically and legally assessed from the standpoint of international human rights law using our broad-based approach paradigm for assessing the human right to water in this form of water insecurity situation.

*1.2 Blue Water (BW) Insecurity*

Blue water refers to naturally or artificially stored water from aquifers, streams, lakes and reservoirs, which is mobile, and thus also subject to water competition between different

users. Blue water scarcity refers to situations of insufficiency to sustainably meet local green water deficits, while blue water excess refers to situations where excess blue water can prevent the stakeholder from functioning.

Governmental decisions or policies, or private sector measures, that seek to respond to blue water insecurity situations can be subject to the same broad rights-based approach paradigm on the human right to water, using similar analytical and legal matrices as shown earlier. In the United States, the federal government does not have any laws or restrictions thus far on rainwater harvesting. While no state has made collecting rainwater entirely illegal, some states provide restrictions. The states of Rhode Island, Texas, Virginia, Florida, Delaware, Arizona, Connecticut, Hawaii, Indiana, Iowa, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, New Hampshire, New Jersey, New Mexico, New York, North Dakota, Oklahoma, Pennsylvania, South Carolina, South Dakota, Tennessee, Vermont, Virginia, Washington, West Virginia, Wisconsin, and Wyoming are examples of states that do not have restrictions on collecting rainwater, with these states even offering tax incentives to encourage rainwater collection. Colorado restricts residents to up to 110 gallons of collected rainwater, with such collected rainwater only to be used in the property where it was collected and for outdoor purposes (House Bill 16-1005). California permits residential, commercial, and governmental landowners to install, maintain, and operate rainwater capture systems for specified purposes (California Rainwater Capture Act of 2012), while Illinois requires that collected rainwater only be used for non-potable purposes and rainwater-harvesting systems required to be constructed according to the Illinois Plumbing Code (Plumbing-Rainwater Systems Bill SB0038). Nevada allows rainwater collection only under a water right grant for intended purposes only (NB74), while Ohio permits rainwater harvesting for potable and non-potable uses so long as the water system is providing drinking water to no more than 25 people (Ohio Rev. Code § 3701.344). Texas requires that rainwater collection systems must be incorporated into a building's design and a written notice provided o the municipality (House Bill 3391), while in Utah, people who register with the Utah Division of Water Resources can store up to 2500 gallons of rainwater and unregistered persons up to 2 containers at 100 gallons or less per container (Senate Bill 32). These measures can also be tested for due diligence and audit compliance with the human right to water, especially since blue water insecurity situations particularly implicate the element of water adequacy and the element of water sustainability.

*1.3 Economic Water (EW) Insecurity*

This form of water insecurity emerges in a situation where blue water is necessary (because green water is scarce) and sufficient (blue water is not scarce), but the appropriate infrastructure is missing to access the available blue water. The absence of infrastructure often triggers the need for private capital infusions through domestic or foreign investment to enable building out the required infrastructure. In the United States, investors in water infrastructure would need to consider, as part of their legal due diligence, federal laws such as Section 404 of the Federal Water Pollution Control Act, which authorizes the U.S. Army Corps of Engineers to "issue permits, after notice and opportunity for public hearings for the discharge of dredged or fill material into navigable waters."[70] Such navigable waters is defined under the Clean Water Act as "waters of

[70] 33 U.S.C. § 1344.

the United States."[71] In structuring the investment necessary for water infrastructure, investors should also examine the Wild and Scenic Rivers Act,[72] (which requires that certain rivers be preserved in free-flowing condition, and forbids any department or agency of the United States from recommending authorization of any water resources project that would have a direct and adverse effect on the values for which such river was established), as well as the Endangered Species Act,[73] (which could be implicated in water withdrawals when additional instream flows are required for an endangered species but water is already in use by private parties with state water rights), and the 1986 Water Resources and Development Act[74] (which requires prior approval of the Governor of each of the Great Lake States for any diversion or export from any portion of the Great Lakes or from any tributary within the United States of any of the Great Lakes, for use outside of the Great Lakes basin).[75]

Investment decisions and infrastructure plans could also be subjected to the broad rights-based framework paradigm on the human right to water using the analytical and legal matrices previously illustrated. Economic water insecurity situations will inimitably engage the elements of adequacy (especially as to the economic, physical, and informational accessibility of water and water quality), multidimensionality (especially as to the safeguards on the nature of water as social and cultural goods, particularly for indigenous peoples), and sustainability. In the example of the United States, there are existing federal legal parameters that will necessarily shape the nature of water infrastructure investment. However, taking into account the broad rights-based framework paradigm on assessing the human right to water will provide a more comprehensive examination of investment compliance with the elements of the human right to water, the cross-cutting human rights obligations of States, and specific interrelated human rights, noting the extent to which States have chosen to include them in the terms of investment contracts with the private investor.[76]

*1.4 Virtual Water (VW) Insecurity*

Virtual water scarcity emerges when trade barriers prevent the import of water (whether blue or economic), that is a necessary for a community stakeholder. In the United States, the Great Lakes Compact (Sales from the Great Lakes Basin)[77] is an agreement that effectively bans the withdrawal of water from the Great Lakes to locations outside the Great Lakes basin. Import bans and other similar trade restrictions – even if animated by environmental conservation legislative

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[71] 30 Stat. 1151, 33 U.S.C. § 403. *See also Rapanos v. United States,* 126 S.Ct. 2208, 2248 (Kennedy, J. concurring) (2006).
[72] 16 U.S.C. §§ 1271-1287.
[73] 16 U.S.C. §§ 1531-1544.
[74] 42 U.S.C. §1962d-20(d)(2000).
[75] It is not a settled question whether the ban on water diversions from the Great Lakes applies to commercialized water leaving the Great Lakes basin. *See Little Traverse Bay Bands of Odawa Indians v. Great Spring Waters of Am., Inc.,* 203 F.Supp.2d 853 (W.D. Mich. 2002).
[76] *See Urbaser S.A. and Consorcio de Aguas Bilbao Bizkaia, Bilbao Bizkaia Ur Partzuergoa v. The Argentine Republic,* ICSID Case No. ARB/07/26, Award of 8 December 2016, para. 1210 ("While it is thus correct to state that the State's obligation is based on its obligation to enforce the human right to water of all individuals under its jurisdiction, this is not the case for the investors who pursue, it is true, the same goal, but on the basis of the Concession and not under an obligation derived from the human right to water. Indeed, the enforcement of the human right to water represents an obligation to perform. Such obligation is imposed upon States. It cannot be imposed on any company knowledgeable in the field of provision of water and sanitation services. In order to have such an obligation to perform applicable to a particular investor, a contract or similar legal relationship of civil and commercial law is required. In such a case, the investor's obligation to perform has as its source domestic law; it does not find its legal ground in general international law.").
[77] 42 U.S.C. § 1962d-20, full text at https://www.congress.gov/110/plaws/publ342/PLAW-110PUBL342.pdf (last accessed 1 September 2021).

purposes – can also be evaluated from the standpoint of the human right to water, especially on the elements of adequacy, multidimensionality, and sustainability. Virtual water insecurity particularly involves the accessibility of water as an aspect of adequacy as the first element of the human right to water. To the extent that water is not physically accessible or economically accessible as a result of the import bans or other similar trade restrictions, it is important for government policy-makers to also consider the impacts of such trade measures on the human rights to water of the affected communities, which includes cross-cutting obligations as well as the specific interrelated human rights pertaining to each element of the human right to water. A similar analytical and legal matrix can be used to evaluate the consistency or inconsistency of trade measures affecting the import of water for specifically vulnerable stakeholders such as communities and indigenous peoples, who have interwoven considerations as to their rights to health, culture, human dignity, environment, and cultural integrity and participation that should also be taken into account before any blanket bans or import quotas are imposed. Likewise, state-driven restrictions, such as those in Ohio (limiting collected rainwater harvesting use and distribution to a maximum of 25 people) and Colorado (limiting the amount and use of collected rainwater by residents), could also be tested against the broad rights-based framework paradigm on the human right to water.

Significantly, in his 2021 report to the United Nations Human Rights Council, the Special Rapporteur on the human rights to safe drinking water and sanitation, Mr. Pedro Arrojo Agudo, alerted the international community to the increased risks and negative impacts from the commodification and financialization of water in a manner that excludes vulnerable populations from existing water trading markets:

> "24. It is recognized in the first principle of the Dublin Statement on Water and Sustainable Development of 1992 that water is essential to sustain life and the environment. On the other hand, it is mentioned in its fourth principle that water should be recognized as an economic good – an approach that serves as a basis for its consideration as a financial asset, as has been done with economic goods in general, within the dynamics of the financialization of the economy.
>
> 25. Public management has certainly suffered from rigidity, opacity and bureaucracy over the decades, and the droughts of the late twentieth century have highlighted these problems in several countries. This has provided arguments for promoting reforms that allow the purchase and sale of water concession rights, with the aim of making the concession system more flexible to better manage scarcity.
>
> 26. The different water trading markets that emerged were initially subject to regulatory conditions, linking the duration of contracts to drought cycles, establishing environmental restrictions or providing compensation for impacts on third parties. In general, the influence of powerful actors and unequal access to information have led to increasing problems of opacity, while regulatory measures have been relaxed or have disappeared, favouring the growing private appropriation of water. In this context, the management of water as a commodity has weakened consideration of it as a public good and the role of the State as guarantor of the public interest, of the enjoyment of the human rights to safe drinking water and sanitation and of the sustainability of aquatic ecosystems, to the extent that the logic of the market does not take into account these values and rights.

27. In the context of this commodified approach, in a number of countries where water trading markets have been legalized, the allocation of water to guarantee the sustainability of aquatic ecosystems has also tended to be managed through the market, thereby treating the environment as just another user, and not as the basis of life. This is the case in the state of California in the United States, where, between 2003 and 2011, water purchased for environmental needs accounted for 20 per cent of the total volume traded on water markets. This is despite the country's public trust doctrine – according to which certain natural resources, such as water, are considered public property – and rulings such as on Mono Lake, which require water use to be "beneficial to the public interest" and include ecology among the purposes of the public trust. European Union water legislation (Water Framework Directive 2000/60/EC), in line with the United States public trust doctrine, is clearer and considers ecological flows as restrictions on productive uses, thus avoiding competition between environmental needs and productive demands.

28. In addition, the priority for personal and domestic uses recognized by the Committee on Economic, Social and Cultural Right in its general comment No. 15 (2002) and established by law in many countries, has tended to be relegated and replaced by the purchase of rights, which carries the risk of exorbitant and unaffordable prices for people living in poverty. Returning to the example of California, cities are the main recipients of traded water, especially during periods of drought (some 40 per cent between 2003 and 2011).

29. The development of water trading markets has, in fact, led to the circumvention of the possibilities provided by concession systems to adjust and adapt the actual water supply to the availability of water at any given time. Any concession establishes a use license for a specific amount of water, but if there is less water available owing to drought, the institution responsible reduces the water supply foreseen in the concession according to the water available. In addition, this water supply must respect the priorities of use established by law, such as domestic supply or ecological flows. These concession systems provide for the possibility of reviewing water rights and eventually resizing or expropriating concession of licensing rights if the public interest so requires, with fair compensation provided for by law….

34. Although the different water trading markets have developed historical and political contexts, in the four countries considered they have common elements, which can be summarized as follows: (a) Separation of water from land to allow water commodification; (b) Deregulation of water rights trading between users and between different uses; (c) Transition from publicly regulated pricing, usually for non-profit cost recovery, to market water pricing; (d) Increasing de facto private appropriation of water, marginalization of vulnerable users and disregard for affected third parties and non-productive values; (e) The environment tends to become just another market actor, forcing the State to purchase water rights to ensure the sustainability of ecosystems.

35. From the Special Rapporteur's point of view, while many of the criticisms of the dominant public management model throughout the twentieth century are

justified, the neoliberal alternative is not the right one. Certainly, the unsustainability of the supply-side approach makes it necessary to redefine the public interest in the twenty-first century on the basis of the paradigm of sustainability and the priority of guaranteeing human rights to safe drinking water and sanitation and reinforcing the consideration of water as a public good. It is also necessary to overcome the lack of an economic rationale for supply-side approaches by promoting a new sustainable economic rationale based on an ecosystem approach. That is, rivers can no longer be managed as mere water resource channels but as living ecosystems. In short, it is necessary to develop democratic governance of water that guarantees human rights and environmental sustainability, with transparency and public participation as the keys to combating bureaucratic opacity and promoting efficiency.

36. In cases of the overexploitation of aquifers where groundwater is privately owned, it is necessary, first and foremost, to establish public control over these aquifers to promote management plans and review existing water rights in order to ensure sustainability, priority of the potable water supply and the fulfilment of the human rights to drinking water and sanitation, with the participation of the entire affected population. In cases of the overallocation of public water rights, it is necessary to clearly state that these rights will be exercised in proportion to the actual water availability, or to promote a process of review of concession rights through transparency, broad public participation and fair compensation, in order to ensure, one way or the other, sustainability and the prioritization of the human rights to safe drinking water and sanitation.

37. Beyond ensuring respect for sustainability limits and prioritizing human rights, economic tools, institutions and strategies are needed to promote responsible, efficient and sustainable water use and management. In this regard, it is necessary to remember that market logic is not the only possible economic logic; there are multiple economic tools based on lines of thought such as ecological economics or institutional economics that can and should be used to integrate human rights and environmental sustainability into the democratic governance of water as a public good.

38. An example of such economic tools could be the pricing strategy of water and sanitation services through consumption blocks that have varying prices. The basic block, adjusted to what is considered the amount necessary for a dignified life and in compliance with the human rights to safe drinking water and sanitation, should be affordable and even free in specific circumstances. The second consumption block could have a cost-recovery rate. The higher consumption blocks should have much higher prices, generating a cross-subsidy from luxury to basic uses. Market logic would do the opposite, charging less for the higher consumption blocks to incentivize consumption and ultimately increase profits. However, from the Special Rapporteur's point of view, water and sanitation services should not be a profit-making business but a service of public interest, universally accessible and with minimal environmental impacts. Such a pricing strategy can be a good example of the many economic tools that, without responding to the logic of the market, can

> induce efficiency and good practices, while being coherently integrated into the framework of sustainable democratic water governance under a human rights-based approach."[78]

As seen from the above extracts of the report, the UN Special Rapporteur is discussing the elements of adequacy, multidimensionality, and sustainability in the human right to water. The study on commodification and financialization of water emphasizes that virtual water insecurities can generate serious human rights impacts on the human right to water of populations, as well as interrelated human rights under the International Covenant on Economic, Social and Cultural Rights, environmental rights, governance and participation rights, among others.

*1.5 Cultural Water (CW) Insecurity*

Finally, cultural water insecurities can emerge when community physical needs for water are met, but not necessarily cultural or spiritual needs associated with water. In the United States, the "reserved water rights" of Indian tribal nations identify and apply tribal norms on water allocation and use.[79] Failure to consider indigenous rights or recognized cultural and spiritual rights in regard to water sources, water allocation, and water management policies set by States, or those implemented by their private sector partners under concession contracts, would likely imperil the elements of multidimensionality and sustainability in the human right to water. In Canada, the Assembly of First Nations emphasized indigenous inherent rights to water and the legal consequences ensuing from this understanding through their National Water Declaration:

> "Assembly of First Nations, National Water Declaration
>
> *Context*
>
> We, the First Nations, were placed on this land by the Creator to live in harmony with nature and humankind. The Creator gave us our spiritual beliefs, languages and laws and cultures that teach us to respect, nurture and care for Mother Earth. Water is the lifeblood of the Earth and we as First Nations recognize water as a sacred gift that connects all life.
>
> *Ceremonies*
>
> All First Nations place a high importance on water, and practice sacred ceremonies to ensure waters are respected and that these water ceremonies are passed on to future generations. We continue to honour our spiritual ancestors and the spirits of the water through our traditional ways and ceremonies. We have the right to maintain and strengthen our spiritual relationship with our traditionally occupied lands, waters and coastal seas. We continue to exercise these rights to fulfill our responsibilities and obligations given to us by the Creator.

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[78] United Nations General Assembly, *Risks and impacts of the commodification and financialization of water on the human rights to safe drinking water and sanitation,* A/76/159, 16 July 2021, paras. 24-29, 34-38, full text at https://undocs.org/A/76/159 (last accessed 1 September 2021).

[79] *See* DAVID H. GETCHES, ET AL., CASES AND MATERIALS ON FEDERAL INDIAN LAW (4TH ED., 1998), at pp. 854-859.

*Inherent and Treaty Rights*

First Nations have the right to free, prior and informed consent to developments on our lands, waters and coastal seas. We have the right to govern ourselves, and the right to self-determination. We have the right to freely pursue our economic, social and cultural development. We continue to exercise our rights to ownership and control over our traditional lands, territories and natural resources. Our internationally recognized right to self-determination gives First Nations the power to make decisions, based upon our laws, customs, and traditional knowledge to sustain our waters, for all life and future generations. First Nation sovereignty is recognized through the UN Declaration of the Rights of Indigenous Peoples. We have inherent and human rights to water for basic human needs, sanitation, social, economic, cultural and ceremonial purposes. First Nations Peoples have Inherent rights and title to the waters located in their traditional lands. Treaties have affirmed and further protect our relationship with water. We respect the waters and harvest the marine resources in a sustainable manner as our way of life and reaffirmed under the Canadian Constitution and case law. The waters sustain our health, spirituality and physical wellbeing. Our traditional activities depend on water for transportation, for drinking, cleaning, sustenance, purification, and provide habitat for the fish, plants and animals that provide medicines and foods. We affirm our right to the reclaiming, conservation and protection of the environment, and the sustainable development of First Nations lands in a balanced responsible way.

*Current Condition and Protection of Waters*

The waters in Canada are increasingly being disrespected, misused and polluted by industrial development, agriculture, urbanization and climate change. Water in First Nations territories is often degraded by activities that occur outside or adjacent to our communities and traditional lands. We must continue to exercise our right to protect and care for our waters, as our Ancestors have taught us to ensure there are clean waters for future generations to come.

*Consultation & Accommodation*

First Nations must be adequately and fairly consulted and accommodated prior to any decisions or actions related to our waters in Canada's provinces or territories. First Nations are entitled to free, prior and informed consent to any activities

within and surrounding our waters. We have the right to consultation by culturally appropriate means, where these consultations must be carried out with deep and mutual respect, and consent. Any activities within and surrounding our waters must be carried out with full participation of First Nations Peoples, through fair, independent, impartial, open and transparent processes.

*Water Governance*

First Nations inherent right to self-government extends to our right to manage and govern our waters. We have a right to make our own water and environmental laws and to practice our customary and Indigenous legal orders. Many First Nations live

without sufficient water allocations and suffer frequent infringements on their Aboriginal and Treaty rights to water. Our inherent water rights must be recognized, protected and upheld and First Nations must be fully and actively engaged in any legislative or regulatory development pertaining to our waters. The right of First Nations to manage our own water resources, to develop and enforce laws is affirmed by Section 35, Canada Constitution 1982 and must be recognized by Canada. We affirm that nothing in this Declaration shall be construed so as to abrogate or derogate from any aboriginal or treaty rights of the aboriginal peoples of Canada, affirmed or recognized in section 35 of the Constitution Act, 1982, or given effect through any self-government agreement.

*Indigenous Knowledge Systems*

First Nations have a direct relationship with all waters that exist on Mother Earth, and we care, protect and honour them through our traditional ways. Our own Indigenous knowledge systems are the foundation of our Nations. Our knowledge systems inform our relationship with water as an element, a spiritual entity, a resource and a source of life. We care, protect and honour those relationships through our customs, traditions and practices. Many First Nations seek to restore our traditional ways of protecting the health of water and to share these ways with the world. We assert our internationally recognized right to maintain, control, protect and share in the benefits of the use of our Indigenous knowledge systems and cultural heritage. These have been given to us by the Creator through our Ancestors, and passed to us through our Elders, and must and will be shared with the future generations to come. We affirm our right to protect our intellectual property rights and reserve the right to maintain, protect and transmit Aboriginal Traditional knowledge as deemed appropriate by the rights holders.

*Final Affirmation*

First Nations are traditional knowledge keepers and sacred protectors of the land and resources, who will continue to support our people now, and in the future. Through the guidance of the Creator, we will do what is necessary to protect our waters, land and air. We must improve our relationships and foster stronger relationships between Canada and First Nations that are respectful of our inherent and Treaty rights which are also affirmed by the Constitution Act, 1982. First Nations seek the recognition of our inherent jurisdictional authorities over water and require resources to build capacity to advocate for our water rights and to protect the health of the water that Mother Earth bestows. The Creator placed us on this earth, each on our own sacred lands, to care for the earth, environment and humankind. We stand united to follow and implement our knowledge, laws and self-determination to preserve and protect life's most sacred gift – water. We call on the Canadian Government, provinces and Territorial Governments and People of Canada to recognize, support and affirm all First Nation Water declarations put

forth and appeal for greater cooperation to protect our water through this National Water Declaration."[80]

Cultural water insecurities reveal serious issues on the adequacy, multidimensionality, and sustainability elements of the human right to water, especially when juxtaposed with interrelated human rights to health, adequate standard of living, social security, a healthy environment, cultural participation, identity and belief, among others. As reported by the United Nations, indigenous peoples' human rights to land, territory, and access to natural resources are among the most imperiled human rights for indigenous peoples, especially in the context of water infrastructure development activities: "one issue that concerns indigenous communities relates to the planning, design and execution of major development projects on their lands. Wherever large-scale projects are executed in areas occupied by indigenous peoples, it is likely that their communities will undergo profound social and economic changes that the competent authorities are often incapable of understanding, much less anticipating. Sometimes the impact will be beneficial, very often it is devastating, but it is never negligible…Indigenous peoples bear a disproportionate share of the social and human costs of resource-intensive and resource-extractive industries, large dams and other infrastructure projects, logging and plantations, bioprospecting, industrial fishing and farming, and also eco-tourism and imposed conservation projects…No activity has better illustrated this situation than the construction of large multipurpose dams that affect indigenous areas…The principal effects of these projects for indigenous peoples relate to loss of traditional territories and land, eviction, migration and eventual resettlement, depletion of resources necessary for physical and cultural survival, destruction and pollution of the traditional environment, social and community disorganization, long-term negative health and nutritional impacts as well as, in some cases, harassment and violence. The Special Rapporteur therefore calls for the long-term economic, social and cultural effects of major development projects on the livelihood, identity, social organization and well-being of indigenous communities to be included in the assessment of their expected outcomes, and to be closely monitored on an ongoing basis. This process must include analysis of health and nutrition status, migration and resettlement, changes in economic activities, standards of living, as well as cultural transformations and socio-psychological conditions, with special attention given to women and children. It is also essential to respect the right of indigenous peoples to be consulted and give their free, informed and prior consent to any development project having such effects."[81]

To reiterate, applying the broad rights-based framework paradigm proposed in this study can help evaluate and assess proposed responses, measures, or policies adapting to cultural water insecurities, not just in the consistency of such proposals with the human right to water, but most importantly with cross-cutting human rights obligations that are especially crucial for indigenous peoples (e.g. rights to self-determination, non-discrimination, free disposition of natural resources subject to mutual benefit and international law, non-deprivation of means of subsistence, and equal enjoyment of all human rights), as well as specifically interrelated rights on health, culture, education, social security, just and favorable conditions of work, adequate standard of living,

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[80] Assembly of First Nations, National Water Declaration, full text at https://www.afn.ca/uploads/files/water/national_water_declaration.pdf (last accessed 1 September 2021).
[81] United Nations General Assembly, *The situation of human rights and fundamental freedoms of indigenous peoples,* A/59/258, 12 August 2004, paras. 18-21, full text at https://undocs.org/A/59/258 (last accessed 1 September 2021).

cultural participation, identity and expression of belief, and consultation, notification, participation, and decision-making rights of indigenous peoples.

## 2. Assessing the Human Right to Water in the Water Governance Assessment

The preceding section transposed the broad rights-based approach paradigm for assessing the human right to water in five types of water insecurity situations, as well as to evaluate proposed responses to such water insecurity situations. The same broad rights-based approach paradigm can be used to inform water governance frameworks, drawing from a cohesive and integrated understanding of: 1) the elements of adequacy, multidimensionality, and sustainability of the human right to water; 2) cross-cutting human rights obligations of States (and the degree to which they bind their private sector partners through regulatory and governance frameworks) to respect, protect, fulfil, and remedy the rights to self-determination, non-discrimination, free disposition of natural resources subject to mutual benefit and international law, non-deprivation of means of subsistence, and equal enjoyment of all human rights; and 3) specifically interrelated human rights pertaining to each element of adequacy, multidimensionality, and sustainability.

The Water Governance Assessment described in Section 3.2 identifies water governance policy regimes and puts forward a typology of water governance failures and institutional weaknesses, based on four indicators to help identify whether water governance could effectively achieve the human right to water. The broad rights-based framework paradigm for assessing the human right to water could also assist in this regard in the analysis of each of these four indicators. The analytical matrix below, merging the four governance indicators with the rights-based approach paradigm on the human right to water, could ultimately help locate and identify the sources of governance failures and institutional weaknesses:

**ANALYTICAL AND LEGAL MATRIX FOR IDENTIFYING AND MAPPING WATER GOVERNANCE FAILURES**

| | **Indicator 1: Influential Actors in Water Governance** | **Indicator 2: Evidence of Participatory, Inclusive, or Decentralized Water Management** | **Indicator 3: Transparency and accountability arrangements and enforcement** | **Indicator 4: Threats to Hydrosocial (Livelihood, Cultural, Religious) Relations** |
|---|---|---|---|---|
| **Element 1 of the Human Right to Water: ADEQUACY**<br><br>**Availability of water**<br><br>**Water Quality**<br><br>**Accessibility of Water** | The nature of influence and the type of actor expectedly varies according to the aspect of | The evidence taken also depends on the aspect of adequacy involved. | Is there transparency, accountability, and enforcement in regard to decisions taken involving the adequacy element | What threats to hydrosocial relations arise in regard to decisions involving adequacy (e.g. water availability, |

| | | | | |
|---|---|---|---|---|
| **a) Cross-Cutting obligations**<br><br>**b) Interrelated Specific Human Rights Obligations** | adequacy involved. | | of the human right to water? | quality, accessibility)? |
| **Element 2 of the Human Right to Water:**<br><br>**MULTIDIMENSIONALITY**<br><br>**Water as a Social Good**<br><br>**Water as a Cultural Good**<br><br>**a) Cross-Cutting Obligations**<br><br>**b) Interrelated Specific Human Rights Obligations** | Which actors influence the characterization of water as an economic resource, instead of a social or cultural good? | Is there evidence of participation, inclusiveness, or decentralized water management when water is treated as also a social and cultural good? | Is there transparency, accountability, and enforcement in regard to decisions taken involving the multidimensionality element of the human right to water? | What threats to hydrosocial relations arise in regard to decisions involving the multidimensionality of water, especially as they relate to indigenous peoples and other distinct cultural communities? |
| **Element 3 of the Human Right to Water:**<br><br>**SUSTAINABILITY**<br><br>**Protection and preservation of intergenerational rights and interests**<br><br>**Non-retrogression obligation**<br><br>**a) Cross-Cutting Obligations**<br><br>**b) Interrelated Specific Human Rights Obligations** | Which actors are involved in making decisions that impact the sustainability of water? | What evidence is there that any sustainability proposal or decision is participatory, inclusive, or decentralized? | Are water sustainability decisions, plans, or measures transparent, and are there provisions for accountability, as well as for enforcement? | What threats to hydrosocial relations arise in regard to decisions involving water sustainability? |

# ANNEX B

The jurisprudence on the legal obligations of corporations with respect to human rights has evolved significantly over the last five years. In a landmark decision *Milieudefensie v. Royal Dutch Shell*, the Hague District Court held that Shell (a private company) violated its human rights obligations by failing to take adequate action to curb contributions to climate change and was directed to reduce its emissions by 45% by 2030 to comply with international human rights and climate change law:

> "4.4.15. Business enterprises should respect human rights. This means that they should avoid infringing on the human rights of others and should address adverse human rights impacts with which they are involved. Tackling the adverse human rights impacts means that measures must be taken to prevent, limit and, where necessary, address these impacts. It is a global standard of expected conduct for all businesses wherever they operate….this responsibility of businesses exists independently of states' abilities and/or willingness to fulfil their own human rights obligations, and does not diminish those obligations. It is not an optional responsibility for companies. It applies everywhere, regardless of the local legal context, and is not passive: 'Respecting human rights is not a passive responsibility: it requires action on the part of businesses.'
>
> 4.4.16. The responsibility of business enterprises to respect human rights applies to all enterprises regardless of their size, sector, operational context, ownership and structure. Nevertheless, the scale and complexity of the means through which enterprises meet that responsibility may vary according to these factors and with the severity of the enterprises' adverse human rights impacts. The means through which a business enterprise meets its responsibility to respect human rights will be proportional to, among other factors, its size. Severity of impacts will be judged by their scale, scope, and irremediable character. The means through which a business enterprise meets its responsibility to respect human rights may also vary depending on whether, and the extent to which, it conducts business through a corporate group or individually…
>
> 4.4.52. …the not-disputed responsibility of other parties and the uncertainty whether states and society as a whole will manage to achieve the goals of the Paris Agreement, do not absolve Royal Dutch Shell of its individual responsibility regarding the significant emissions over which it has control and influence. There is also broad international consensus that each company must independently work towards the goal of net zero emissions by 2050....Royal Dutch Shell must do its part with respect to the emissions over which it has control and influence. It is an individual responsibility of Royal Dutch Shell, of which much may be expected. Therefore, Royal Dutch Shell must do more than monitoring developments in society and complying with the regulations in the countries where the Shell group operates. There is broad international consensus that it is

> imperative for non-state actors to contribute to emissions reduction and for companies to have an individual responsibility to achieve the reduction targets…"[82]

Similarly, the United Kingdom Supreme Court i *Vedanta v. Lungowe* (2019) outlined the standards to assess a parent company's responsibility for harms caused by its subsidiaries. This issue is significant for the implementation of the United Nations Guiding Principles on Business and Human Rights that recognize the existing obligations of States to protect human rights by regulating the conduct of businesses. The Court stated that in certain circumstances, global parent companies may also be found to have a duty of care to third parties dealing with their subsidiaries when they formulate group-wide policies that are implemented by subsidiaries all over the world, and even more so when the parent company "takes active steps, by training, supervision, and enforcement, to see that they are implemented by relevant subsidiaries."[83] In 2020, the Canadian Supreme Court declared in *Nevsun Resources Ltd. v. Araya et al.* that corporate activities abroad could be subject to damages suits for breaches of customary international law prohibitions based on international human rights law, declaring that "[t]he context in which international human rights norms must be interpreted and applied today is one in which such norms are routinely applied to private actors."[84] *Nevsun* may play a pivotal role for human rights litigants seeking to invoke customary international law as a part of domestic law and lays emphasis on corporate social responsibility, particularly in finding that it is possible for a court to apply customary international law to corporations in a suit at common law.[85] In the Philippines, the Constitutional Commission on Human Rights reached a decision in 2019 on its investigation affirming the human rights and climate change responsibility of all 'Carbon Majors' (the major fossil fuel companies).[86] In September 2021, France's highest court, the Cour de Cassation, decided that Lafarge-Holcim's indictment for complicity in crimes against humanity (where Lafarge was alleged to have paid around 13 million euros to armed groups including ISIS to keep its cement factory running in northern Syria) was wrongly dismissed by the Paris Appeals Court, with the Cour de Cassation stating that "one can be complicit in crimes against humanity even if one doesn't have the intention of being associated with the crimes committed."[87] This case is a turning point for corporate responsibility and more importantly for multinationals that are accused of complicity in crimes against humanity, especially in conflict regions.

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[82] Ibid., at paras. 4.4.15, 4.4.16, 4.4.52.

[83] *Vedanta Resources PLC and another v. Lungowe and others*, Judgment of 10 April 2019, United Kingdom Supreme Court, paras. 53 and 54, full text at https://www.supremecourt.uk/cases/docs/uksc-2017-0185-judgment.pdf (last accessed 15 October 2021).

[84] *Nevsun Resources Ltd. v. Araya et al.,* Supreme Court of Canada, Judgment of 28 February 2020, full text at https://www.canlii.org/en/ca/scc/doc/2020/2020scc5/2020scc5.html (last accessed 15 October 2021).

[85] Beatrice A. Walton, *Nevsun Resources Ltd. v. Araya*, 115 American Journal of International Law 107–114 (2021).

[86] *In re Greenpeace Southeast Asia and Others,* Philippine Constitutional Commission on Human Rights Case No. CHR-NI-2016-0001, 9 December 2019 Decision, summary at http://climatecasechart.com/climate-change-litigation/non-us-case/in-re-greenpeace-southeast-asia-et-al/ (last accessed 15 October 2021). The full text of the Philippine Constitutional Commission on Human Rights' decision is not yet publicly available.

[87] "France: Lafarge loses ruling in Syria crime against humanity case", Al Jazeera, 7 September 2021, full text at https://www.aljazeera.com/news/2021/9/7/frances-lafarge-loses-ruling-in-syria-crimes-against-humanity (last accessed 15 October 2021). Full text of the 7 September 2021 Cour de Cassation decision (in French), available at https://www.courdecassation.fr/decision/6137092ff585960512dfe635?search_api_fulltext=lafarge&sort=&items_per_page=&judilibre_chambre=&judilibre_type=&judilibre_matiere=&judilibre_publication=&judilibre_solution=&op=&date_du=&date_au= (last accessed 15 October 2021).

Regional human rights courts, notwithstanding their exercise of jurisdiction primarily directed towards States, have also not been inhibited in recent years from evaluating the conduct of business enterprises in relation to human rights impacts experienced by indigenous peoples and other vulnerable communities.[88] In a rare case in 2015, the Inter-American Court of Human Rights did not only find in *Kaliña and Lokono Peoples v. Suriname* that "the mining activities that resulted in the adverse impact on the environment and, consequently, on the rights of indigenous peoples, were carried out by private agents, first by Suralco alone, and then by the joint venture BHP Billiton-Suralco….[but also] businesses must respect **and protect** human rights, as well as prevent, mitigate, and accept responsibility for the adverse human rights impacts directly linked to their activities."[89] The expansive reference in this case - whether intentional or clerically erroneous - to include a duty to protect human rights on the part of business enterprises (when originally the duty to protect as understood in the United Nations Guiding Principles only refers to the State's duty to protect) was a most unprecedented declaration from an international human rights court.

Recent treaty-making, legislative, and regulatory developments also reflect an expanding understanding of companies' duties of care towards third parties in regard to preventing and respecting human rights law. In Latin America and the Caribbean, the *Escazu Agreement* (the Regional Agreement on Access to Information, Public Participation, and Justice in Environmental Matters in Latin America and the Caribbean) entered into force in April 2021, thus making it binding law in these regions to recognize the widespread participation rights of the public, including "participation of the public in decision-making processes, revisions, re-examinations or updates with respect to projects and activities, and in other processes for granting environmental permits that have or may have a significant impact on the environment, including when they may affect health."[90] Such rights could be asserted and enforced against the competent public authorities of a State, but also "when appropriate, private organizations that receive public funds or benefits (directly or indirectly) or that perform public functions and services, but only with respect to the public funds or benefits received or to the public functions and services performed."[91] In Germany, the Supply Chain Act is slated to enter into force in January 2023, where companies will be subject to a legal obligation to conduct human rights and environmental due diligence for their entire supply chain, undertake a regular risk analysis, and as a consequence of such risk analysis, to take active measures to prevent, minimize, and remedy any identified negative impacts on human rights and the environment.[92] In France, the 2017 French Corporate

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[88] *See among others Case of Kichwa Indigenous People of Sarayaku v. Ecuador,* Inter-American Court of Human Rights, 27 June 2012 Judgment on the Merits and Reparations, paras. 194 and 209, full text at https://corteidh.or.cr/docs/casos/articulos/seriec_245_ing.pdf (last accessed 15 October 2021); *African Commission on Human and Peoples' Rights v. Republic of Kenya,* Application No. 006/2012, Judgment of 26 May 2017, paras. 8, 117, 120, 178-190 (where the African Court upheld the right of an indigenous people, the Ogiek community, not to be evicted from the Mau Forest Reserve, where Kenya was seeking to operate a reserved water catchment zone), full text at https://www.african-court.org/cpmt/storage/app/uploads/public/5f5/5fe/9a9/5f55fe9a96676974302132.pdf (last accessed 15 October 2021).

[89] Case of the Kaliña and Lokono Peoples v. Suriname, Inter-American Court of Human Rights, 25 November 2015 Judgment on Merits, Reparations, and Costs, at paras. 223 and 224, full text at https://www.corteidh.or.cr/docs/casos/articulos/seriec_309_ing.pdf (last accessed 15 October 2021).

[90] Escazu Agreement (Regional Agreement on Access to Information, Public Participation, and Justice in Environmental Matters in Latin America and the Caribbean), Article 7(2), entry into force April 2021, full text at https://treaties.un.org/doc/Treaties/2018/03/20180312%2003-04%20PM/CTC-XXVII-18.pdf (last accessed 15 October 2021).

[91] Escazu Agreement, Article 2(b). For other provisions affecting the private sector, see Article 6(3)(f), Article 6(7)(d), Article 6(12), Article 6(13), and Article 11(4).

[92] *Lieferkettensorfaltspflichtengesetz – LkSG (Act on Corporate Due Diligence Obligations in Supply Chains,* 16 July 2021, full English translation at https://www.csr-in-deutschland.de/SharedDocs/Downloads/EN/act-corporate-due-diligence-obligations-

Duty of Vigilance Law compels the largest French companies to assess and address human rights, environmental, and climate change impacts arising from company activities, as well as the activities of companies under their control, suppliers and subcontractors, and those with whom they have established commercial relationships, while enabling individuals and concerned parties to sue for up to 10 million euros when companies fail to publish their required vigilance plans, and up to 30 million euros if the failure to publish vigilance plans resulted in damages that would otherwise have been preventable.[93] Finally, while the 10 March 2021 European Union Directive on Corporate Due Diligence and Corporate Accountability maintains that the responsibility to protect human rights and the environment "should not be transferred to private actors,"[94] it also recognized that "the full enjoyment of human rights, including the right to life, health, food and water, depends on the preservation of biodiversity, which is the foundation of ecosystem services to which human well-being is intrinsically linked…human rights violations and breaches of social and environmental standards can be the result of an undertaking's own activities or of those of its business relationships under their control and along their value chain; underlines therefore that due diligence should encompass the entire value chain, but should also involve having a prioritisation policy…".[95] On 23 February 2022, the European Commission released its Proposal for a Directive on Corporate Sustainability and Due Diligence Annex, which itself states that "[e]xisting international standards on responsible business conduct specify that companies should protect human rights and set out how they should address the protection of the environment across their operations and value chains."[96]

Most importantly, on 8 October 2021, the United Nations Human Rights Council unanimously voted to recognize "the right to a safe, clean, healthy and sustainable environment as a human right that is important for the enjoyment of human rights…[and] is related to other rights that are in accordance with existing international law."[97] While this international legal recognition of the human right to a safe, clean, healthy and sustainable environment is also premised on the obligation of States to respect, protect and promote human rights, it also acknowledges "the responsibility of all business enterprises to respect human rights, including the rights to life, liberty and security of human rights defenders working in environmental matters."[98] The explicit recognition of this right in a very broad manner – which until now had only been differently formulated throughout the constitutions and statutes of around 155 countries – will generate corresponding consequences on the future legal interpretation of the duties of States as well as business enterprises. This framework

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supply-chains.pdf;jsessionid=4C0C6154CFC2E7AC7C976EF726757C97?__blob=publicationFile&v=4 (last accessed 15 October 2021).

[93] French Corporate Duty of Vigilance Law, English Translation, 2017, full text at https://respect.international/french-corporate-duty-of-vigilance-law-english-translation/ (last accessed 15 October 2021).

[94] European Parliament Resolution of 10 March 2021 with recommendations to the European Commission on corporate due diligence and corporate accountability, para. 2, full text at https://www.europarl.europa.eu/doceo/document/TA-9-2021-0073_EN.html#title1 (last accessed 15 October 2021).

[95] Ibid., at para. 7.

[96] European Commission Proposal for a Directive of the European Parliament and of the Council on Corporate Sustainability Due Diligence and amending Directive (EU) 2019/1937, at p. 28, full text at https://eur-lex.europa.eu/resource.html?uri=cellar:bc4dcea4-9584-11ec-b4e4-01aa75ed71a1.0001.02/DOC_1&format=PDF (last accessed 10 April 2022).

[97] United Nations Human Rights Council Resolution, *The human right to a safe, clean, healthy, and sustainable environment,* A/HRC/48/L.23/Rev.1, 5 October 2021, full text at https://undocs.org/a/hrc/48/l.23/rev.1 (last accessed 10 April 2022). While no negative votes were cast against this Resolution, four States (Russia, India, China, and Japan) abstained from the vote.

[98] Ibid., at Preamble, paragraphs 14 and 15.

will outline the potential challenges in the human rights-based approach to impact assessment where businesses as duty bearers have a responsibility to respect human rights and undertake appropriate due diligence.

# ANNEX C

## TABLE 1: CONTRIBUTIONS TO PREEXISTING FRAMEWORKS

| Title and Type of Evaluation | How our framework is complementary | Targeted Steps |
|---|---|---|
| **AWS International Water Stewardship Standard 2.0**<br><br>Water Stewardship | AWS' Theory of Change states that all enterprises can achieve good water stewardship if they can understand their own water use and impacts and collaborate with others to advocate for sustainable water use. Our multi-dimensional evaluation of the impact of water-intensive industries on human rights can specifically support the AWS' sections that focus on understanding human rights risks. AWS stresses this aspect but does not provide specific guidance on how to address it. Our guidance fills this gap. | **Step 1 (Gather and Understand), Section 1.5:** *Gather water-related data for the catchment, including: water governance, water balance, water quality, Important Water-Related Areas, infrastructure, and WASH.*<br><br>**Section 1.5.2:** *Applicable water-related legal and regulatory requirements shall be identified, including legally-defined and/or stakeholder-verified customary water rights.* |
| **CEO Water Mandate**<br>Water Stewardship, Human rights | The CEO Water Mandate provides guidance for companies to advance water stewardship. Our framework expands the capacity of enterprises to incorporate human rights considerations as part of that paradigm. The assessment relates to all six commitments, but it especially strengthens the commitment of Community Engagement<br><br>The CEO Water Mandate has also published their own guide on the human right to water and sanitation (CEO Water Mandate 2015). Our preliminary assessment assists in the encouraged formation of a strategy that mitigates human rights risks and elevates opportunities. It enhances the understanding of business obligations and the multidimensionality of the human right to water. | **Commitment Area 5 - Community Engagement:** *Endeavor to understand the water and sanitation challenges in the communities where we operate and how our businesses impact those challenges.*<br><br>**II. Assess Impacts on the HRWS** (in "Guidance for Companies on Respecting the Human Rights to Water & Sanitation")**:** *assess how the company may be involved in impacts on the HRWS, prioritize impacts for attention where necessary, build a systematic approach to assessment* |
| **Initiative on Responsible Mining Assurance (IRMA) Standard for Responsible Mineral Processing**<br><br>Mining Responsibility | The IRMA Standard for Responsible Mineral Processing is designed to support the development of more socially and environmentally responsible mining practices. Our framework expands upon how to conduct the Standard's Human Rights Due Diligence recommendation. Because our framework relies on an assessment of water conditions, the implementation of the IRMA Standard's Chapter 4.2 on Water Management could directly feed into our framework. Our framework is also complementary to the Standard's principle of Social Responsibility | **Chapter 1.3 (Human Rights Due Diligence), Step 1.3.2.:** *Assessment of Human Rights Risks and Impacts -- establish an ongoing process to identify and assess potential human rights impacts*<br><br>**Chapter 3.7 (Cultural Heritage), Step 3.7.2:** *Cultural Heritage Screening and Assessment -- undertake a screening process to identify risks and potential impacts* |

| | | |
|---|---|---|
| | and the Framework's new focus on environmental, social, and governance (ESG) issues. | *to replicable, non-replicable and critical cultural heritage from the proposed mineral processing-related activities* |
| **International Council on Mining and Metals (ICMM) Water Stewardship Framework**<br><br>Water Stewardship | The ICMM Water Stewardship Framework outlines a standardized approach to water stewardship for the mining and metals industry, recognizing that water connects an operation to the surrounding landscape and communities. Our framework expands upon the document's emphasis on engaging with the local community by identifying how the right to water across its many dimensions could be put at risk by water-intensive activities. | **Engage Proactively and Inclusively**: *Identify and engage people/ groups related to operations, understand community access requirements and concerns, and strive to create shared benefits.*<br><br>**Adopt a catchment- based approach**: *Understand the cultural/ economic/ environmental value of water at the catchment scale to identify water stewardship risks and provide context for corporate and operational water management* |
| **ICMM's Voluntary Principles on Security and Human Rights Implementation Guidance Tools**<br><br>Human Rights | The ICMM's Voluntary Principles (VPs) Implementation Guidance Tools (IGT) aim to help extractive companies respect human rights and international law throughout their operations. The tool guides companies through the implementation of these VPs. Our framework can support the identification and clarification of risks specific to the human right to water. | **Module 2 (Risk Assessment), Section 2.2:** *Identify Sources of Security and Human Rights Risks*<br><br>**Section 2.3:** *Identify and characterize risks* |

Water is the Liquid of Life.

We must take good care of it in every way we can.




**Land Use Plan "Environmental planning begins with land use planning"**

50-70% of the land area must be devoted as nature sanctuaries, native forests, trees and plants that are food for birds, bees, butterflies, dragonflies, etc.

All streams and rivers, and waterways must have a very wide easement of at least 100 meters from the highest water level. This will prevent flooding of human settlements

**FOOD GARDENS.** Half the area for human habitat will be devoted to community and cooperative food gardens.

Urban food gardening promotes a sense of community and the spirit of sharing. 'In scarcity, people steal. In abundance, people share.' The practice of planting, growing, and harvesting reconnects humans to the sources of life of Land, Air, and Water – The LAW of Life. It will instill in them a deep respect and value for the Life-Sources. And they will begin to live in the rhythm and harmony of Nature. It is also a sure solution to hunger and extreme poverty

## FOOD PANTRY

To help feed families, especially children and seniors, there can be community food pantries. People who know how to cook will be supported to prepare food for people who need to be fed. The children and seniors can also help in the planting, growing,

and harvesting of food from the food gardens. For children, it is a wonderful start of their pathway to reconnecting with nature. Environmental Education in practice.

For Seniors, food gardening will give them something to do that is fun and meaningful. It will also ensure that they are fed with healthy food.

## TRANSFORMATION OF TRANSPORTATION

Transportation is all about moving from one place to another. It must be done in a manner that is safe, healthy, reliable, convenient, comfortable, carbon negative, and fun. It is more fun in the Philippines.

The working principle for planning mobility (movement and transportation) of humans (passengers) and things (cargo) must be

"Those who have less in wheels must have more in roads."

All roads must be designed not to move cars. It's goal must be to move people in a way that is fun, clean, comfortable, sustainable.

Roads are to be planned and used according to their function, as

Arterial Roads – roads that connect towns and cities

Collector Roads – Roads that connect arterial roads to

Local Roads – roads that bring us to our homes and offices.

For Arterial Roads, a Cooperative Road Train can be the main mode for mobility.

## Collector Roads

Jeepneys connected to each other is a great possibility. It can by a hybrid engine, powered by solar and pedal power. It will be smoother and more organized if it will run not on rubber wheels, but on rail tracks.

Transportation systems on Collector Roads can be very energy efficient, carbon negative, healthy, creative, and FUN – In Friendship and Unity with Nature. We do not have to burn down the Earth just to move from one place to another.

The iconic Philippine jeepneys can be connected and make a mini-train. Running on a railway instead of a rubber-need road, it will be very efficient, convenient, comfortable, reliable, and very affordable. Maybe even for free. With kinetic energy from pedaling passengers, the Bayanihan Road Train will be the beginning of a clean and wonderful world. (__ DA and ao to paint a combined picture of these two pictures)


**BAYANIHAN ROAD TRAIN**

## Local Roads

Local roads are the roads that bring us to our homes and to interior work places. Today, getting there is mostly difficult, expensive, pollutive, and traffic congestive.

Can we imagine how we can transform this transportation system to something that is clean, convenient, reliable, cooperative, inexpensive, and comfortable? Most of all, we can make it safe, healthy, and happy?

Does this sound like another impossible dream? Maybe it does.

But the picture below is clear evidence that it can be done. It is totally pedal-powered and runs on a rail track. It is a real example of how a transportation system can be described safe, clean, convenient, comfortable, reliable, free, healthy, and happy.

This was invented and implemented by a handful of dreamers way back almost two decades ago. None of them were engineers, only dreamers. But they made it real in a mere two weeks.

The body is not made of heavy steel. It is made of light and safe fiberglass. The rail track are simple rectangular bars. This mini-car they called “car-ousel” moved very well – smoothly and safely. And it was only being pedaled by the two persons behind.[3]

This whole rail-based transportation system - both body and railway - was all

This mini-train pedaled by two persons could move as many as 25 people. So, if we extended it, eight people pedaling can move up to 100 plus passengers. Passengers themselves can volunteer to do some of the pedaling and get healthy exercise.

The kinetic power created by pedaling can be used to charge a battery. The battery can help move the mini-train forward, or even upward, like how a battery-powered bicycled does.

[3] Passengers at the back pedaling the prototype carousel are: Senator Loren Legarda, the Department of Tourism Secretary Ace Durano. Passengers in the middle seat are Ambassador of the Netherlands to the Philippines (2007), Ms. Gina Lopez, former Secretary of the Department of Environment. In front are the dreamers who made the impossible dream quickly possible – multi-awarded former Mayor Edward Hagedorn of Puerto Princesa City of Palawan and a CBB – Certified Beach Bum. The person who made it is the son of Ed Hagedorn.

done in a mere 14 days. And guess how much? At a cost of only One Thousand Dollars (U$1,000).

It is a real proof of concept. It is also clear evidence that the present transportation system that is dirty, dangerous, and costly can be transformed into something very safe, clean, convenient, comfortable, reliable, free, healthy, and happy.

And to think that this proof of concept was done by only three daring dreamers. If proper engineers are interested, the idea can be improved. And the seemingly-impossible transformation of transportation will be very possible, pretty, and happy.

The idea can be improved by:

1. Extending the body to accommodate up to as many passengers as possible.
2. Pedaling seats can be both in front and at the back.
3. The kinetic power from pedaling can charge renewable batteries that will make move upward and travel long distances. This is the working idea of an electric bicycle and of hybrid electric vehicles.
4. Put a roof over the “Carousel” (aka mini-train). This will shelter the passengers from the elements - rain, hot sun, very cold temperature, all depending upon geographic location. The roof can be solar panels that will also charge the batteries.

SECRET TRANSPORTATION OPTION

Another easily-doable option for all collective transportation is a SECRET – a Self-Contained Renewable Energy Transport. Note the picture below. It is solar-and wind-powered both charging a renewable battery.

It is an invention and a product of the creative cooperation of three Filipinos as early as June 12, 2011. It was tested and showcased during the first road revolution exercise in Cebu City in The Philippines. It was all made possible by three ordinary Filipinos. Again, they were not engineers, only daring dreamers. If they can do it, and only for a thousand pesos (a few hundred U$), what can Governments, Creative and Committed Persons, and maybe even Caring Corporations do? The answer is obvious.

Usually, Governments don't like cost-and-time-efficient projects. Their eyes are blinded by a great number of zeroes in their budgets.


This is a picture of a pedal-powered transportation system in Brazil. People can even drink beverages and eat food facing a table at the enter of this creative mode of transportation.

# TRANSFORMATION OF NUTIRITION

What is the purpose of food? Isn't it to nurture and nourish our bodies.

So, what does our body need to survive and to thrive? That is the science of nutrition.

The anatomy (body parts) and physiology (body functions) of a human being and a chimpanzee (monkey) are almost 100% the same. So maybe we should consider what food do monkeys need to survive and thrive.

They generally eat only leaves, fruits, and nuts. Yet they last long and even at older ages, they can climb trees and walk far.

For humans, we used to be foragers, gathering food from the forests. It is said that humans were never meant to always eat meat. Animals that eat meat have sharp teeth, like wolves, dogs, sharks, and crocodiles. Animals that are meant to eat leaves and grass – like cows, horses, carabaos, humans, etc. - do not have sharp teeth.

So what happened to human food? What was once only very special dishes like rice and meat from fellow animals (cows, pigs, and chickens), have become almost our standard staple. We have also developed a taste for sugar.

For humans, food has been changed from being a source for nutrition to becoming all about taste. And most of the tasteful food eaten from meat and sugar have become the source of human chronic diseases like diabetes, high blood pressure, and more.

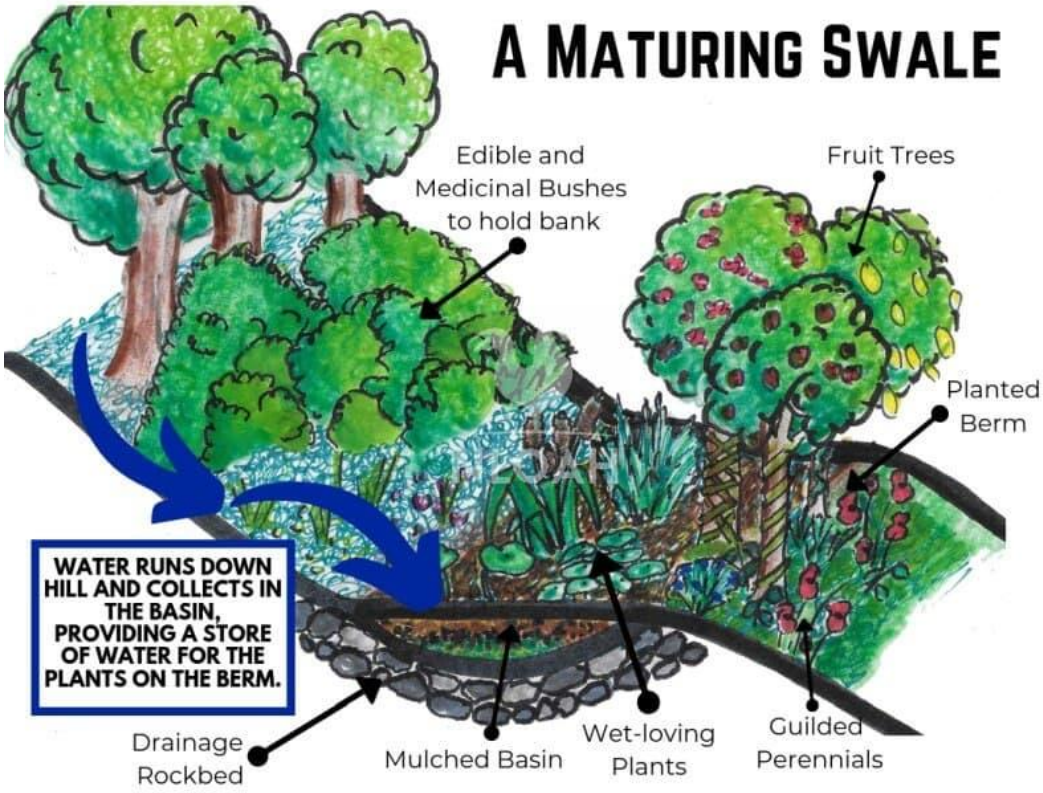
Let's start with rice. Rice was once only a special food first because it is very difficult to grow and to process. They were eaten only as desserts.

Over time, what was only a special dessert was turned into staple food.

**WATER** – Next to Air, Water is the most important Source of Life. Without water for three days, we die. So why are we wasting water? We have even invented a term for it - “Wastewater’.

We must change the term to be: Used water. All used water must be saved, cleaned and available for re-use. Singapore has shown that this can be done. “NU-Water”

All water from rain must be collected, stored, cleaned, and used for propagation of life.




Lowest Portion of the land must be reserved for rain


Rainwater runoff must be collected and turned into

- Roads will be transformed – ½ green belt, cooperative food gardens, parks for birds and butterflies, etc. and human reconnection with FUN – Friendship and Unity with Nature



Arterial roads will be serviced by long buses or trains. Arterial, Collector, and Local roads may be divided into three parts: 1/3 for walkways, 1/3 for community food gardens, and 1/3 for non-motorized, clean, healthy, comfortable and convenient mobility (transport) systems. Special facilities will be provided for seniors and persons with disabilities. Volunteers can move them in wheelchairs or electric semi-golf carts.

**Human settlements**

Rooftops must be devoted for solar power and food gardens. Every family must have at least 150 sq. m. of living space.

Instead of roads and other mobility infrastructure, government budget must be heavily set aside for safe, healthy, affordable, and livable housing.

- **Eco-daycare centers.**

  The state (government or concerned citizens) can put up daycare centers for infants and toddlers. They will be coached into the game of planting seeds of food and flowers.

Eco-day Care Centers. Infants and toddlers will be given the change to be in the company and play with Nature. They will be taught how to plant, grow, and harvest their vegetables. It will be their introduction to living in harmony with Nature and avoid extreme hunger.