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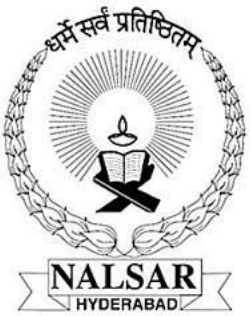

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EDITORIAL

The Editorial Board of Environmental Law and Practice Review (ELPR) takes immense pleasure in bringing forth Volume VIII on the theme 'Global South and Climate Change: UNFCCC +30'. Committed to its vision and mission, the present Volume through its apposite theme seeks to encourage interdisciplinary discourse and scholarship pertaining to environmental law, thereby expanding upon its associated issues in climate change regime, refugee law and displacement, international trade law, intellectual property law. Environmental jurisprudence has substantially evolved since Stockholm Conference 1972, manifesting the pressing challenges of the anthropic globalized order. It exposed the realities bare, imploring to the State consciousness to partake in common, but even differentiated agendas towards achieving global efforts of sustainability, a state wherein human and environment could both thrive. The dichotomy between environment (and how climate change affects the environment) and development are mostly characterized by the Global South predicaments, that mostly understands the concept of growth (& consumption) different from development.

In the first contribution titled '*Characterizing the Climate Diaspora from Small-Island-States Prone to Sea-Level-Rise'*, Dr. Debasis Poddar introduces the readership to the plight of vulnerable small island states inundated by climate induced sea level rise resorting to mass

exodus, in particularly the Republic of Maldives. The exposition delves into the existential deadlock of 'climate refugee' as a misnomer to its cause, exposing the fallacy of international refugee law regime obsolete to the emerging climatic challenges, separating the political setting from humanitarian concern. Bringing forth the traditional Westphalian criteria of statehood into the discussion, the author addresses the legal conundrum of (extra) territoriality of human rights in anthropic climate overseas displacements sustaining (un)promised universal character. Contesting on the principle of State responsibility and obligation *erga omnes* in the international community towards reparation of the disproportionately positioned States in the climate context, the author suggests plausible facets to reason the protection of rights of island diaspora. Lastly, the author addresses the realpolitik behind admission of migration diaspora adopted by few developed States through their national laws, setting apart climate diaspora as *sui generis* in the evolving regime.

The centrality of human existence with the environment has been well-demonstrated by the dramatic population explosion since the industrial revolution, cursed by the 'invisible hand,' backfiring (over) production with waste generation, resulting in the greatest anthropic impact on the environment. In the next paper titled, *'The (Disappointing) Role of International Law in Circular Economy'*, Dr. Judith S. Spiegel addresses the issues of waste regulation, management through the circular economy model under the international trade law regime to promote sustainable or regenerative economic growth. The author analyses the 3Rs: Reduce, Reuse and Recycle wherein the trade

regime both internationally and in its effect, nationally applies 'recycle' to the greatest extent than 'reduce' and 'reuse'. Backed up by greater economic incentives of recycling wastes, the author argues that the present trade regime has commodified wastes, creating a lucrative recycling industry in various sectors that views recycling as a form of growth in the production system as against reducing and reusing. The author identifies the shortcomings of (innovative) international law regime targeting sustainable development goals that legitimises transboundary trading systems, those plagued by the perverted understanding of growth and consumption thus creating a divide between Global North and Global South. The ideation of 'best out of waste' aligned with green consumption can conveniently be misaligned with economic production, which the author navigates on the producer responsibility and accountability to address the environmental concerns as to the limitation of usability of wastes. The author concludes with the dark reality of etched limitless-ness and unending cycle of economic growth that perpetuates inequality and injustice to human environment.

The Paris Agreement 2015, a legally binding international treaty marks a watershed moment towards climate action. The agreement reaffirms the obligation of developed countries to support the climate efforts of developing countries with (green) technology transfer and associated capacity building activities towards achieving just climate transition and resilience. In the article titled *'A legal analysis of transfer and compulsory licensing of green technology in India to mitigate climate change'*, Dr. Rohan Cherian Thomas explores the legal standing of patent

protection in Intellectual Property Rights (IPR) regime in relation to the green technologies. The article discusses the exclusive rights of the patentee wherein the mechanism of compulsory licensing is the most suitable for situations concerning public health, environmental urgencies as it provides possibility of obtainment of IP licenses without the consent of the patentee. The author also highlights the lessons learnt from COVID experience to elaborate on the IPR regime on technology transfer, its shortcomings and suggests criteria through which compulsory licensing provisions can be extended to environmentally sound technology (EST) to bridge the climate technological gap between Global North and Global South.

Continuing the deliberation on climate change and its effects with respect to internally displaced population (IDP), in the next article titled, '*Climate Change and Internal Displacement: A victim based approach',* Dr. Ashirbani Dutta analyses the factors that constitutes as 'dangerous' climate change to broadly assess the needs and rights of IDPs and suggests a victim-based approach as the most suitable for protection of the rights of climate displaced. The author draws the attention of the readership into both external/physical and internal/social factors that needs urgent consideration for the overall resettlement process such as change in habitat and available resources as well as experiences and adaptive behavior of the vulnerable displaced communities. The author suggests that the victim approach criteria will help ascertain 'dangerous' climate affected vulnerable population and future likelihood of climate disasters.

Evaluating through the lens of Third World Approaches to International Law (TWAIL) in the international climate finance regime in the article titled '*Evolution of the global Climate finance regime: So close, yet so far*', Rahul Mohanty articulates the evolution of the regime based on the principle of distributive justice as a means to bridge the gap between the global north and the global south. The author engages the readership from the starting point of climate negotiation till date to account for the power relations between the participant states with respect to their agendas. The author acknowledges the Principle of Differentiation under United Nations Framework Convention on Climate Change (UNFCCC) underpinned in the climate finance regime on paper, identifying the shortcomings of operationalization of the financial mechanism in reality. Author concludes with the practical difficulties of ambiguity in climate finance framework that needs constant efforts through negotiations for the actual fulfillment of climate justice and resilience.

Cumulatively, the contributions of the authors in the Volume have got the ball rolling on the ongoing discussions on climate change and its interactions with Human Environment are understood, assessed and addressed. It also brings on the table, a constant exercise of evaluation and reviewing of diverse emerging interdisciplinary approach to international climate regime.

The Board of Editors would like to thank the Patrons, Advisory Board, the authors who have contributed and the scholars Dr. Ashna Singh, Dr. Hemangini Sharma, Dr. Amit Anand, Mr. Tarun

Gopalkrishnan who supported us with the peer review towards the successful publication of this volume.

CHARACTERIZING THE CLIMATE DIASPORA FROM SMALL-ISLAND-STATES PRONE TO SEA-LEVEL-RISE

Debasis Poddar[*]

Abstract

In the given circumstance, while the climate-induced sea-level-rise is scheduled to get small-island states inundated one after another, overseas exodus from these states ought to happen for survival of these vulnerable peoples out of instinctive inertia. While the likelihood of such overseas exodus appears on its rise, the UN Human Rights Office of the High Commissioner is yet to ascertain the specific legal character of potential mass exodus out of climate-induced vulnerability for the peoples of these island-states. The Republic of Maldives, an archipelagic state in the Indian Ocean is one such state nearest to the Indian coast.

For example, the author explores specific legal character of the potential mass exodus of about half-million people from all hitherto inhabited islands of the Maldives to ascertain survival out of a climate-induced sea-level-rise; followed by the inundation of otherwise habitable islands and leaving several other islands no longer habitable in time ahead, though not inundated as such. What is the legal status of those Maldivians who are left with no other option but forced by aggression- in functional semblance with manmade persecution of anthropic climate change followed by predictable sea-

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level-rise to vacate their default homeland, thereby finding overseas settlement elsewhere? The author engages his research on technical legal identity of the Maldivians migrated elsewhere, in another state, by means of a blue diaspora for survival.

"*People's human rights do not disappear because their homes do.*"

\- *Antonio Guterres, the UN Secretary-General.*[1]

1. INTRODUCTION

With stereotypical theme, the nomenclature ought to refer veteran readership back to an otherwise *bona fide* human rights concern for so-called "climate refugees", albeit, with rhetoric. Sporadic exceptions apart, sophomore projects end with average arguendo for basic human rights in favour of those displaced by the climate-induced sea-level-rise, more so for inhabitants of the small-island-states set to get inundated by the sea-level-rise in time ahead; by courtesy, scientific predictions pronounced by Intergovernmental Panel on Climate Change (IPCC).[2] The rights advocacy is charged with appreciable values since environmental rights are interpreted by the judiciary in India as appurtenant to basic human rights, while public international

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1 Antonio Guterres, Secretary-General's remarks to the Security Council debate on "Sea-level Rise: Implications for International Peace and Security, New York, (Feb 14, 2023).

2 By 2100, global mean sea level rise is projected to be around 0.1 metre lower with global warming of 1.5°C compared to 2°C (*medium confidence*). Sea level will continue to rise well beyond 2100 (*high confidence*), and the magnitude and rate of this rise depend on future emission pathways. A slower rate of sea level rise enables greater opportunities for adaptation in the human and ecological systems of small islands, low-lying coastal areas and deltas (*medium confidence*). {3.3, 3.4, 3.6}
Global Warming of 1.5^{0}C an IPCC special report on the impacts of global warming of 1.5^{0}C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty, Summary for Policymakers (SPM), p. 7, paragraph B-2. Available at: <https://www.ipcc.ch/site/assets/uploads/sites/2/2022/06/SPM_version_report_HR.pdf>

law plays the largest tributary for both of them; human rights law regime and environmental law regime alike. Thus, at the very threshold, let it be taken as axiomatic that the text of a treaty- once collectively agreed and adopted by state-parties cannot be amended. Thus, the Convention relating to the status of Refugees, of 1951 cannot be amended to include so-called 'climate refugees' to the given inventory of the international refugee law regime. The author hereby engages a problem-solving effort to extend relief to so-called "climate refugees" and thereby remedy a juridical conundrum of contemporary relevance. Indeed, the ideation of the author finds an instant inspiration by the blue diaspora of the Maldivians; getting migrated from home islands to elsewhere, the author strives to scribble a generic study for all those similarly situated elsewhere.

The author advances research to engage a quest beyond human rights jurisprudence; thereby explores the legal status of so-called climate refugees since the phrase (climate refuge) resembles misnomer- an oxymoron- while these refugees get fitting into none of the five criteria of the given refugee law treaty regime relating to refugees: race, religion, nationality, membership of a particular social group, and political opinion.[3] Neither, they are subjected to persecution, or fear of persecution; something in need of human agency with *mala fide* intention as *sine qua non* to wield gross arbitrariness with hostility to amount to persecution against vulnerable population toward getting them expropriated.[4] A premise

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3 Art. I-A (2), Convention relating to the Status of Refugees, opened for signature 28 July 1951, [1954] 189 UNTS 150 (entered into force 22 April 1954).

4 ibid, art. 1-C (4).

that contemporary change in the climate worldwide is anthropocentric falls too short to sync human intention to change climate and climate change as culmination of human intention into action; thereby causing gradual sea-level-rise to gross detriment of small-island-states. The given fallacy in the course of an otherwise neat climate refugee discourse lies in getting human rights regime more problematized; followed by re-search for specific legal status of those inhabitants of the small-island-states deported by means of climate-induced sea-level-rise.

Therefore, irrespective of the usage of 'climate refugees' as oft-quoted buzzwords, inhabitants of small-island-states displaced from their default habitat by the sea-level-rise cannot be held as 'climate refugees' in the technical sense of the term; by courtesy, reasoning mentioned above. Neither they get fit into other available variants of displacement, e.g., asylum, extradition, etc. After commonplace practice, asylum is granted to the individual asylum-seeker by the host country on a case-to-case basis. Since grant of asylum by the states falls in their exclusive prerogative, asylum *en masse* cannot be ruled out as state practice. However, the international community has never witnessed asylum *en masse* as state practice. The case of those subjected to overseas displacement by climate change concerns group; something asylum is not at all meant for. Likewise, extradition is another state practice and subject to prerogatives of sovereign nation-states concerned. Therefore, extradition cannot fit to the inhabitants of small-island-states; subjected to climate-induced deportation by sea-level-rise out of global climate change since

culpability- either legal or political- constitutes the cause of action culminating into extradition of the person concerned. Also, extradition is governed by presupposition of prerogatives of appropriate authority exercised by human agency functional behind the sovereign veil; something non-existent in cases of deportation of inhabitants by sea-level-rise in small-island-states. The persons subjected to trafficking elsewhere, in another state, remain outside the coverage since (i) they are trafficked, not migrated; (ii) covered by a class-apart human rights treaty regime; also, (iii) by another UN agency.

So far as deportation of inhabitants from small-island-states- their default habitat- is concerned, both refugee and extradited are subjected to hostility perpetrated by nature; something not at all personified in the course of juridical discourse. At its best, the aftermath of nature is construed as an act of God; nothing more and nothing else. Here lies the reasoning behind climate-induced deportation not getting status of refugee or extradited due to want of human agency behind deportation by otherwise anthropocentric global climate change. The presence of so-called 'invisible hand' operative in political economy from behind, though well-accepted by contemporary political economy, cannot be established by Law since otherwise remote nexus between human agency- albeit by incident and not by intent- and consequent climate change in the small-island-states cannot be established by proof of specific liability upon a particular state or two for the sea-level-rise and consequent

deportation of inhabitants of these states under compelling circumstances.

Last yet not least, issues vis-à-vis asylum deserve more clarity. Besides the caveat stated above, that nation-states retain grant of asylum as a subject of prerogatives to grant asylum in favour of asylum-seekers individually, on a case-to-case basis. A grant of asylum in favour of those deported from their default homeland or elsewhere by climate-induced sea-level-rise turns poles-apart from grant of asylum to those soliciting in other occasions. The character of asylum in other occasions is often than not more political in its features while the character of asylum in occasions of deportation of those by climate-induced sea-level-rise and consequent inundation of the small-island-states is more humanitarian in its features. The diaspora of so-called 'climate refugees', deported by sea-level-rise in small-island-states of the South-East- either interhemispheric exodus to the North-West or intra-hemispheric exodus to elsewhere within the South-East- involves immigration diplomacy of the host state or the destination state concerned vis-à-vis forced migration; albeit, with realpolitik of its own. In final count, more than universal humanitarianism, parochial politics often than not set the reasoning behind state policy of the country concerned: whether or how far "to be, or not to be"[5] a Good Samaritan. After all, right to resettlement of so-called "climate refugees" is subject to rights diplomacy by default. Here lies their narrative; a saga of pilgrimage from Paradise Lost to Paradise Regained

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5 Hamlet, in William Shakespeare, *The Tragedy of Hamlet, Prince of Denmark* (1600); Act III, Scene 1.

2. SEA-LEVEL-RISE-INDUCED OVERSEAS MIGRATION

The popular perceptions on sea-level-rise-induced overseas migration is misnomer since the same get carried away by the theatrical effect of an ocular opulence vis-à-vis inhabitants of the small-island-states getting washed away by roaring sea-level-rise and struggling for survival in the whirlpool of deep sea while their homes getting inundated and succumbed to slow-yet-steady disappearance underneath the sea surface, like sunset; something yet to happen, albeit, not too far away to be experienced anyway.

Fact is but stranger than fiction. Long before the apocalyptic end apprehended, sea-level-rise-induced overseas migration from small-island-states to elsewhere appears on its rise with reasoning of its own. After lived experience of these island inhabitants, sea-level-rise-induced occasional inundation of cultivable land by floods takes fertility away; thereby leaves the land semi-arid- even arid- to contribute to regular crop failure. Besides, sea-level-rise contributes to rise in the salinity of freshwater reserves, including groundwater reserves; thereby leaving the default ecosystem inhospitable to these inhabitants. These major tributaries apart, there are others- no less minor in their catastrophic effect, e.g., irregular monsoon to cause vicious cycle of draughts and floods respectively (both add-on to the peril of crop failure in agrarian economy), extreme weathering features along with routine natural disaster (series or/and simultaneous), decrease in biodiversity, to name few among them; none is lesser than any other anyway. Cursed by the climate, islanders

are left with no other option but to join the exodus elsewhere for their survival.

Back to the economy, with regular import of essential commodities, import dependency increases leaps and bounds while the capacity of islanders- running agrarian economies- to purchase even essential commodities is too limited to sustain themselves even long before their islands disappear underneath the rising sea surface in time ahead. Thus, sea-level-rise-induced overseas migration from small-island-states to elsewhere is on with its course operative before the discourse vis-à-vis so-called "climate refugees" went initiated in recent times. The user alone knows where the shoes pinch; as it is said. Before the rights rhetoric, islanders apprehended the risks looming larger in time ahead; thereby initiated exodus from sinking islands to elsewhere: (i) other islands hospitable within the same island-state till date; (ii) other nation-states around these island-states within the region; (iii) nation-states beyond the region. The author has put research foci upon those islanders internationally displaced, e.g., categories (ii) and (iii) respectively. Those internally displaced within their respective states attracted international attention with the coverage of the refugee law regime (UNHCR); by means of its extended mandate.[6] Those internationally displaced by the sea-level-rise, neither refugee nor the asylum-seeker not extradited by nation-

[6] The (UN) General Assembly … recognizes the importance of the Secretary-General's Action Agenda on Internal Displacement, calls for sustained momentum on this important issue, and encourages the Office of the High Commissioner, in coordination with the Special Adviser on Solutions to Internal Displacement, to contribute to the United Nations system's collective efforts to advance durable solutions, with ownership and leadership of affected States.
G.A. Res. 77/198, Paragraph 12, U.N. Doc. A/RES/77/198(December 15, 2022).

states, taken together, formulate the research foci of this effort. Whether, or how far, these islanders may be construed by the international community as stateless population- since their respective states disappeared underneath sea surface- and, if so, whether, or how far, their basic human rights disappear with the disappearance of their home-states reflect a series of moot points of concern for the author to research on legal status of so-called "climate refugees". With recent ideation of the International Law Commission on legal status of those deported out of sea-level-rise from respective small-island-states to elsewhere as a relevant point of reference to research the status,[7] the author characterizes blue diaspora with reference to the right to resettlement of so-called "climate refugees" while 'persecuted' by deep sea; albeit, with cue taken from rhetoric usage of a legal maxim in the course of international refugee discourse. At the same time, the Commission cited practical problems; along with alternative modalities to this end.[8] In forthcoming paragraphs, the author extends policy advocacy

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7 With respect to chapter IV (peremptory norms of general international law (*jus cogens*), on concerns relating to the phenomenon of sea-level rise and measures taken in that regard, the following aspects were listed for consideration relevant to the issue of statehood: the progressive displacement of persons to the territories of other States, which in turn raised questions related to nationality, diplomatic protection and refugee status.
Report of the (UN) International Law Commission, in its Seventy-third Session, 18 April - 3 June and 4 July - 5 August 2022, supplement no. 10 (A/77/10), p. 325, paragraph 167(b). Available at: https://documents-dds-ny.un.org/doc/UNDOC/GEN/G22/448/48/PDF/G2244848.pdf?OpenElement.

8 At the same time, it was noted that continuity of statehood in the absence of a territory could entail certain practical problems, such as statelessness of its population or difficulties in exercising rights over maritime zones. Another possible alternative that could be explored consisted in maintaining some form of international legal personality without a territory, similar to the examples of the Holy See and the Sovereign Order of Malta, in relation to which the Co-Chair outlined various modalities: (a) ceding or assignment of segments or portions of territory in other States, with or without transfer of sovereignty; (b) association with other State(s); (c) establishment of confederations or federations; (d) unification with another State, including the possibility of a merger.

vis-à-vis resettlement of these peoples of small-island-states with territories lost to sea-level-rise.

3. OVERSEAS DISPLACEMENT WITH SEA-LEVEL-RISE

After traditional political studies since time immemorial, as a political institution, statecraft has had four non-negotiable qualifiers to its credit, e.g., territory, population, government and sovereignty. Recognition by other states in the international community remains political- and often than not politicized- qualifier with legal nitty-gritty behind. Albeit, territory is non-negotiable for statecraft, there are but occasions in the chronicles where some other states in the international community recognized government-in-exile; without possession of territory of its own. For instance, after France lost all its territory to Germany, its government was established in London under the banner of Free France (1940). Little later, Free India was established in Singapore with the leadership of Bose (1943) while India was a colony; ruled by the British Empire. Likewise, His Holiness the 14th Dalai Lama established his Tibetan Government-in-Exile in Dharamshala; after India granted asylum to His Holiness, followed by grant of the refugee-status *en masse* to the Tibetans who crossed the Indo-Tibetan border in course of the then mass exodus (1959). However, overseas diaspora from small-island-states to elsewhere for survival from sea-level-rise-induced risk is not witnessed by mankind in the hitherto chronicles. A newer challenge before the international community, therefore, needs a newer strategy to engage discussion, also debate, across the international public domain.

The fundamental quest(ion), therefore, deserves clarity: whether, or how far, basic human rights flow from nationality of the person? A corollary quest(ion) lies elsewhere: whether, or how far, these human rights flow from the status of the person as human being? The former finds qualified affirmative answers after public international law discourse. The state of nationality safeguards rights; but the same is available by circuitous routes. There lies a legitimate expectation upon the state of nationality that the same stands guard to safeguard interests or rights of its national and, if the same are infringed or violated beyond territorial jurisdiction of the nation-state without fault of its national, the state of nationality asserts with its stake as a member of international community of nations.[9-10] Thickness of the soup, interests or rights of a person beyond territorial jurisdiction of own state of nationality- flowed from the nationality- remains limited to diplomatic pursuit. The latter too finds an affirmative answer after the human rights law discourse. However, here the answer remains unqualified by territorial jurisdiction of their state of nationality. Thus, basic human rights of so-called "climate

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9 It is the State's duty to maintain its nationals and to protect them inside and outside its territory. If the recognition of a State's sovereignty were considered to include the right to abandon its duty of protection of its nationals, the rights of the individuals would be no longer paramount and preference would be given to the machinery embodied in the formation of the State instead of to the individual, and the State sovereignty then becomes a means of oppression by one individual over another, although all nationals should receive equality of treatment within a State.
Bisschop WR, 'Nationality in International Law' (1943) 37(2) American Journal of International Law 325.

10 While the doctrinal recognition of the individual as a participant with 'personality' on the international stage may be significant, access to effective international human rights remedies is neither universal nor practical for most injured individuals. Second, there are a number of special situations where individuals abroad may be particularly reliant on the possibilities offered by diplomatic protection.
Andrew Clapham, *Brierly's Law of Nations: An Introduction to the Role of International Law in International Relations*, Oxford University Press, 7th ed., 2012, 260.

refugees"- despite the state of nationality getting succumbed to the sea surface- possess universal potential to appeal to the conscience of the international community; irrespective of status vis-à-vis nationality.

The rights flowed from nationality possess cartographic character. Therefore, the state of nationality plays a critical role as crusader for interests or rights of its national as and whenever (s)he suffers for no fault of oneself. The rights flowed from universal status as human possess demographic character. Therefore, the sufferer belongs to a particular vulnerable group and, with genetic stake in the human species, deserves humane remedy irrespective of state of nationality. Since human rights law regime is inclusive enough, not to exclude those left out as stateless,[11] so-called "climate refugees" deserve deontic approach from other states; more so from major sinners against the sustainable climate. Whether or how far the same may get construed as international responsibility of states- as tributaries to anthropic responsibility- toward climate change appears a moot point.[12] Despite the absence of the guilty mind, negligent drivers suffer prosecution with the charge of culpable homicide.

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11 All human beings are born free and equal in dignity and rights. They are endowed with reason and conscience and should act towards one another in a spirit of brotherhood. UN General Assembly, *Universal Declaration of Human Rights*, 10 December 1948, 217 A (III), available at: <https://www.refworld.org/docid/3ae6b3712c.html>

12 There is an internationally wrongful act of a State when conduct consisting of an action or omission:

(a) Is attributable to the State under international law; and

(b) Constitutes a breach of an international obligation of the state.

Article 2 of the Draft articles on Responsibility of States for Internationally Wrongful Acts, 2001; adopted by the International Law Commission in its fifty-third session, in 2001. Available at: <https://legal.un.org/ilc/texts/instruments/english/commentaries/9_6_2001.pdf>

Likewise, despite an apparent want of culpability, carbon-emitter states may be presumed to have been vitiated with a guilty mind behind the commission of sin against sustainable climate. Attribution apart, international obligation is two-fold: (i) to refrain from unwarranted carbon footprints to gross detriment of sea-level-rise; and (ii) to refrain from refoulment against "climate refugees" from small-island-states without reasoning. While unwarranted carbon footprint is condemned by the climate regime, the culpability of a(ny) major climate sinner cannot be proved beyond reasonable doubt while the same stands *sine qua non* for cause of action. At its best, collective culpability of major climate sinners- taken together- can be proved.

After an otherwise unproblematic jurisprudence, so formulated by the Commission in its draft articles on responsibility of states for internationally wrongful acts, therefore, whether or how far these three forms of reparation, e.g., restitution, compensation and satisfaction, either singly or in combination (by all the climate-sinner nations-states; taken together),[13] prescribed in the persuasive draft document may remedy the displaced from small-island-states by sea-level-rise-induced risk, however, remains a moot point since this document is yet to be adopted by the UN General Assembly as its Resolution. There is a specific prescription for collective responsibility in the ILC draft document.[14] There are but other prescriptions in the document, e.g., continued duty of performance,

13 ibid, art. 34.
14 ibid, art. 47.1.

cessation and non-repetition, etc.,[15] less rigorous and more affordable by all sundry climate-sinner states, with potential to be construed as *erga omnes*; the juridical gospels to all the Westphalian nation-states in the international community.

Subsequently, in one among its radical documents, the Commission has formulated draft principles on the allocation of loss in the case of transboundary harm arising out of hazardous activities.[16] These principles of 2006 are meant to cover hazardous activities not prohibited by international law.[17] The Commission thereby turns its cycle vis-à-vis accountability of the states complete by the inclusion of otherwise innocent activities not prohibited by international law; something radical in the progressive development of international law. The development resembles a pilgrimage endured by the Commission to safeguard the world from hazard; irrespective of illegality of activities by the states.

In a contentious case, the International Court of Justice adjudged a dispute about whether or how far transboundary harm was inflicted by toxic effluents of the Pulp Mills in Uruguay (nearby international border) to the detriment of river Uruguay watercourse flowing from Uruguay, the upper-riparian state, to Argentina, the lower-riparian state.[18] Indeed, the Court found no responsibility-

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15 ibid, art. 29-30.

16 Draft Principles on the Allocation of Loss in the Case of Transboundary Harm Arising out of Hazardous Activities, 2006, adopted by the International Law Commission, at its fifty-eighth session, in 2006. Available at: <https://legal.un.org/ilc/texts/instruments/english/commentaries/9_10_2006.pdf>

17 ibid, art.1.

18 Pulp Mills in the River Uruguay (Argentina v. Uruguay). Available at: https://www.icj-cij.org/case/135

either procedural or substantive- of Uruguay. In a joint dissenting opinion, two judges found Uruguay responsible on the count of substantive responsibility in the given case.[19] Even without recourse judicial discourse, the ILC prescriptions vis-à-vis performance of duty, cessation and non-repetition, may at ease be traced well within the already existing international customs since long back.

So far as refoulment is concerned, with reasoning of its own, political course ought to contest juridical discourse. For instance, to the "climate refugees" from Maldives, a Muslim-majority source state, Hindu-majority state like India or Buddhist-majority state like Sri Lanka cannot be a safe destination in their given circumstances; despite proximity of these two otherwise receptive states nearby Maldives. The range of Muslim-majority states around the Arabian Sea appears the default destination for islanders to try for merger. The readership ought not to be confused with the consideration engaged for resettlement of the islanders as communal. Rather, the rationale behind such consideration lies here that, once displaced by sea-level-rise, the deported ought not to suffer another disaster out of

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[19] In matters related to the use of shared natural resources and the possibility of transboundary harm, the most notable feature that one observes is the extreme elasticity and generality of the substantive principles involved. Permanent sovereignty over natural resources, equitable and rational utilization of these resources, the duty not to cause significant or appreciable harm, the principle of sustainable development, etc., all reflect this generality. The problem is further compounded by the fact that these principles are frequently, where there is a dispute, in a state of tension with each other. Clearly in such situations, respect for procedural obligations assumes considerable importance and comes to the forefront as being an essential indicator of whether, in a concrete case, substantive obligations were or were not breached. Thus, the conclusion whereby non-compliance with the pertinent procedural obligations has eventually had no effect on compliance with the substantive obligations is a proposition that cannot be easily accepted.
Joint dissenting opinion by Awn Shawkat AL-KHASAWNEH and Bruno SIMMA, *JJ.*, in *Pulp Mills on the River Uruguay* (Argentina v. Uruguay), Judgment of 20 April 2010, [26].

parochial realpolitik in the destination state. More than international human rights, national realpolitik decides their destiny while getting resettled in their destination state.

The plaint hereby extended is meant to protect the best interest of "climate refugees" since freedom of faith is one among the most fundamental variants in the rights regime. At times, more than geographical proximity, homogeneity in faith facilitates the merger of immigrants with mainstream citizenry while small-island-states are isolated by sea from territorial borders of other nation-states by default. The very character of diaspora by these islanders in the wake of sea-level-rise is class-apart from the diaspora of others elsewhere. At bottom, like others, these islanders too are subjected to forced migration with sea-level-rise-induced structural violence; thereby leaves identical impact of so-called 'push,' no lesser than "persecution,"[20] with "invisible hand,"[21] i.e., without visible trace of immediate human agency behind violence;[22] something central to

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20 *Supra*, n. 3.

21 As every individual, therefore, endeavours as much as he can, both to employ his capital in the support of domestic industry, and so to direct that industry that its produce maybe of the greatest value; every individual necessarily labours to render the annual revenue of the society as great as he can. He generally, indeed, neither intends to promote the public interest, nor knows how much he is promoting it. By preferring the support of domestic to that of foreign industry, he intends only his own security; and by directing that industry in such a manner as its produce may be of the greatest value, he intends only his own gain; and he is in this, as in many other cases, led by an invisible hand to promote an end which was no part of his intention.
Adam Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations*, Book IV, Chapter II. Available at: <https://www.gutenberg.org/files/3300/3300-h/3300-h.htm>.

22 This paper aims to establish a provisional framework for understanding the manifold types of harm and suffering arising from climate-related disturbances, not as arbitrary environmental "accidents", but as expressions of "structural violence" – that is, the normal, unexceptional, anonymous, and often unscrutinized violence woven into the routine workings of prevailing power structures.
Dennis Soron, *Cruel Weather: Natural Disasters and Structural Violence*, Transformations

trace remote human agency and read sea-level-rise-induced blue diaspora of "climate refugees" accordingly. In this effort, "blue diaspora" is meant to convey the concept of a forced migration where vulnerable groups, i.e., inhabitants of the sinking island state, prefer to leave their state out of predatory upsurge by the deep sea, arbitrary by default; something in semblance of aggression with effect of 'persecution' after the diction of global refugee law regime. Rather than the trajectory of a migration by the deep sea, what determines "blue diaspora" is a migration forced by the deep sea; without immediate human agency behind the same.

The author owes clarification to readership vis-à-vis rationale behind unusual usage of refugee buzzwords, e.g., forced migration, structural violence, etc., in specific context of so-called "climate refugees" of small-island-states, with sea-level-rise-induced risk, while there is no immediate human agency to use force or indulge in violence anyway. Still, the author finds force behind blue diaspora for survival of the islanders displaced in the wake of a primarily anthropic climate change perpetrated by the human agency committed against sustainable climate. The remote presence of human agency by means of the systemic force- seen by Smith as "invisible hand"- behind the blue diaspora finds mention in the scientific literature of the intergovernmental Panel on Climate Change.[23] Even if the apparent absence of *mens rea-* followed by *actus*

(Journal of Media and Culture), 2007, Issue No. 14- Accidental Environments, p. 2 of 10. Available at: <http://www.transformationsjournal.org/wp-content/uploads/2017/01/Soron_Transformations14.pdf>.

[23] Changes in sea level occur for many reasons on different time and space scales Tide gauges measure sea level variations in relation to a fixed benchmark and thus record

reas of the sinner states extends arguendo in defence of development discourse, the same ought to struggle with contestation by well-settled precedent of negligent drivers getting prosecuted for crime of culpable homicide; irrespective of apparent absence of guilty mind behind the crime. Likewise, after *Rylands v. Fletcher* (1868) ratio, strict responsibility lies upon the failure of those for the emission of greenhouse substances from respective territorial jurisdiction to get sustainable climate vitiated; despite due diligence followed by those in possession of the substances.[24] In hypothetical circumstances, errant nation-states would otherwise be held responsible as juristic personae for climate sin; after the law of crimes and torts. A sovereign political institution, also a juristic one, statecraft cannot be held responsible for crime, tort, etc. The law of Westphalian nations traverses with poles-apart trajectory; with mutual interdependence among the states. In the absence of supranational hierarchy, responsibility of states still remains grandeur.

Even in the course of the international juridical discourse, errant states cannot avoid the void vis-à-vis climate responsibility in

"relative sea level" change due both to vertical land movements and to real (eustatic) changes in the ocean level Vertical land movements result from various natural isostatic movements, sedimentation, tectonic processes and even anthropogenic activities (e.g., groundwater and oil extraction).
R. Warrick *et al*, Sea Level Rise: Factors Affecting Sea Level, p. 263, paragraph 9.2. Available at: <https://www.ipcc.ch/site/assets/uploads/2018/03/ipcc_far_wg_I_chapter_09.pdf>.

[24] The Defendants, in order to effect an object of their own, brought on to their land, or on to land which for this purpose may be treated as being theirs, a large accumulated mass of water, and stored it up in a reservoir. The consequence of this was damage to the Plaintiff, and for that damage, however skilfully and carefully the accumulation was made, the Defendants, according to the principles and authorities to which I have adverted, were certainly responsible.
John Rylands and Jehu Horrocks v. Thomas Fletcher (1868), House of Lords judgment. Available at: <https://www.informea.org/sites/default/files/court-decisions/Rylands%20vs%20Fletcher.pdf>.

time ahead since responsibility of the states for internationally wrongful acts was ideated and duly documented by the International Law Commission meanwhile. Accordingly, states-parties are bound by legal obligation not to get sustainable global climate vitiated under the relevant climate change regime (United Nations Framework Convention on Climate Change, 1992, i.e., the UNFCCC);[25] something pledged by all nation-states to the treaty regime with universal acceptance.[26] Besides, development goals were adopted by the UN General Assembly one after another with time bound obligations for all the nation-states to reach affordable and timebound development goals with successive plan-periods, e.g., 2000-2015[27] and 2015-2030[28] respectively; inclusive of pledges to keep the environment and climate sustainable. Thus, breach of such international legal obligations to the international community constitutes a potential predicament to put the climate-sinner nation-states to real peril in time ahead. While forced migration shoots through the roof, migration from these small-island-states out of sea-level-rise-induced risk ought to blow off the dicey situation out-of-proportion.

4. CLIMATE DIASPORA: DILEMMA OF DESIGNATION

In a hypothetical circumstance, while nation-states are prepared to house islanders displaced out of sea-level-rise-induced risk, a moot

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25 Cf, n. 12.

26 The United Nations Framework Convention on Climate Change, 1992; the Preambular paragraphs.

27 Millennium Development Goals, 2000. Available at: <https://research.un.org/en/docs/dev/2000-2015>.

28 Sustainable Development Goals, 2015. Available at:< https://sdgs.un.org/goals>.

point of concern lies in getting their diaspora designated. In earlier paragraphs, the author refuted eligibility of the islanders so immigrated as refugees, asylum-seekers, and extradited; with legal reasoning behind. In forthcoming paragraphs, the author engages a quest for potential identity politics and whether or how far they fit into the same within the regime vis-à-vis forced migration. The international law apart, national realpolitik but plays critical qualifier while getting otherwise unproblematic humanitarian proposition formulated to house the immigrants; something commonplace by means of the given refugee regime in practice. For instance, rare exceptions apart, demand-supply ratio in the domestic labour market often than not regulates policy of every developed state to determine whether or how far the same play destination state to receive foreigners from source state, subjected to forced migration; subject to due diligence upon international relations with source state. Also, state policy vis-à-vis domestic demography may and does play critical qualifier to facilitate intake of foreign population by means of immigration. Thus, Australia and Canada are known for humanitarian approach toward forced migration; albeit, with reasoning of their own. Besides, there are states known for values to house those victims of forced migration. Turkey, Uganda, etc., for instance, possess these values. India too belongs to the same.[29] Despite the highest score in its immigration database, USA falls short of getting

[29] India has been hosting varied refugee groups for decades and has found solutions for many forcibly displaced persons. The UNHCR (the UN Refugee Agency), on India. Available at: https://www.unhcr.org/countries/india

credit since the intention behind migration to USA is too complicated to identify forced migration.

In recent times, diaspora out of climate change received official acknowledgement as a genre of forced migration through documentation by the international community.[30] Accordingly, economic migration and conventional forced migration apart, displacement from small-island-states out of sea-level-rise-induced risk finds mention as a class-apart migration in itself; something characterized by coercion through unsustainable climate, followed by involuntariness in the migration of islanders out of global climate change, thereby resembles forced migration in letters and spirit. The abetment by human agency with circuitous routes through remote access finds mention in the scientific literature.[31] Taken together, climate diaspora from small-island-states out of sea-level-rise-induced risk culminates into unconventional genre of forced migration out of structural violence; something acknowledged and duly documented by the UN General Assembly resolution with inclusion of climate

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[30] Since earliest times, humanity has been on the move. Some people move in search of new economic opportunities and horizons. Others move to escape armed conflict, poverty, food insecurity, persecution, terrorism, or human rights violations and abuses. Still others do so in response to the adverse effects of climate change, natural disasters (some of which may be linked to climate change), or other environmental factors) New York Declaration for Refugees and Migrants , G.A. U.N. Doc. Res. A/RES/71/1, ¶ 1, (September 19, 2016 https://www.un.org/en/development/desa/population/migration/generalassembly/docs/globalcompact/A_RES_71_1.pdf.

[31] Because of their low elevation and small size, many small island states are threatened with partial or virtually total inundation by future rises in sea level. In addition, increased intensity or frequency of cyclones could harm many of these islands. The existence or well-being of many small island states is threatened by climate change and sea-level rise over the next century and beyond.
(IPCC) Assessment Reports, Chapter 19, paragraph 19.3.4.1. Threatened Small Island States. Available at: <https://archive.ipcc.ch/ipccreports/tar/wg2/index.php?idp=671#:~:text=Because%20of%20their%20low%20elevation,harm%20many%20of%20these%20islands>.

into the fold of so-called 'force'; capable to unleash violence; thereby to get population displaced. In small-island-states, displacement hardly remains internal displacement since the vulnerable population finds little space to retreat elsewhere. Therefore, sea-level-rise-induced risk has had potential 'force' to push the population toward offshore migration; thereby land elsewhere, getting immigrated to another state.

While these islanders migrated elsewhere, in another state, are they stateless since the sinking territory of small-island-state as insignia for their state of nationality turns no longer habitable to its population in the wake of sea-level-rise-induced risk? The moot point still remains an unsettled question of fact; even after a minute glance upon coverage of the regime relating to stateless persons.[32] There are two alternatives available to answer: either in affirmative, i.e., without habitable territory of their own, islanders are stateless, or in negative, i.e., even without habitable territory of their own, they are not stateless. Since public international law, and international human rights law in particular, proscribe statelessness, answers ought not to turn affirmative in the final count. However, the negative answer ought to opt one out of two parallel alternatives available to settle the moot point. First, even after its territory ceases to possess its sustainability, the state of nationality of islanders remains the same after public international legal fiction. Second, after their offshore naturalization getting confirmed elsewhere, in another state,

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[32] For the purpose of this Convention, the term "stateless person" means a person who is not considered as a national by any State under the operation of its law. Convention Relating to the Status of Stateless Persons, 1954; Article 1.

nationality- as insignia of individual loyalty to the state where (s)he belongs to-[33] ought to shift from source state to destination state. With jurisprudent reasoning of his own, the author hereby extends arguendo to defend the second position.

While territory of the small-island-state is no longer habitable to its population and the population migrated elsewhere, in another state, the first proposition to protect erstwhile nationality while getting naturalized elsewhere, in another state, suffers from static inertia, devoid of pragmatism, since erstwhile nationality prevents the population- engaged in blue diaspora- get naturalized to their overseas soil. The shift of nationality of islanders- deported from their island by sea-level-rise-induced risk- from source state to destination state, after getting naturalized to the destination state, appears pragmatic with following reasoning: (i) shift of nationality facilitates those displaced likewise get their default loyalty settled with the overseas soil and its society; (ii) shift of nationality facilitates the destination state build confidence on the diasporic population naturalized to itself; (iii) shift of nationality facilitates the international community remain clarified with identity of those so displaced from

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[33] Thus nationality is essentially a subjective phenomenon, constituted by the shared beliefs of a set of people: a belief that each belongs together with the rest; that this association is neither transitory nor merely instrumental but stems from a long history of living together which (it is hoped and expected) will continue into the future; that the community is marked off from other communities by its members' distinctive characteristics; and that each member recognizes a loyalty to the community, expressed in a willingness to sacrifice personal gain to advance its interest.
David Miller, *The Ethical Significance of Nationality*, Ethics, Vol. 98, No. 4 (July 1988), p. 648. Available at:
<https://www.jstor.org/stable/pdf/2380889.pdf?casa_token=5m9X1-Ov1-kAAAAA:-ocsg5Jbi90MmkEhw2FiC5N9IWJpVmlWt-r7gic3QG9BMs-y8znyCoEDGNXvtt_rP1U-LoVdslumbHTPz1171jlpBZKGkq0ftgYvki45zDhmd5N781xm>.

source state and naturalized by destination state in the wake of sea-level-rise-induced risk in small-island-states. Practical points apart, theoretical reasoning corroborates the same proposition extended. Without the territory of its own, even with a government, no population could sustain its claim for statehood for long; something witnessed by the world in recent times while Government-in-exile turned to Central Tibetan Administration; thereby set aside its claims for its own territory. Therefore, for islanders displaced from small-island-states out of sea-level-rise-induced risk, prudence lies in getting themselves naturalized elsewhere, to the destination state, where they find the soil to get resettled; more so since there is no hope for the recovery of small-island-states from sea surface. The death of civilization is no new phenomenon. With reasoning of their own, they ceased to exist in ancient times, e.g., Mohenjo-Daro, Mesopotamia, etc. Also, in recent times, e.g., Third Reich, Soviet Union, etc. Likewise, with sea-level-rise-induced risk, small-island-states will cease to exist in literal sense and the same is written on the walls. There is no option to those from small-island-states but to get naturalized elsewhere, in the given state of refuge; irrespective of static inertia, commonplace with all living species worldwide.

5. CONCLUSION

In preceding paragraphs, the author demonstrated that so-called "climate refugees" from small-island-states out of sea-level-rise-induced risk misfit into the stereotype cloak of either refugees, or asylum-seekers, or extradited, even stateless people, since they are subjected to altogether different genre of forced migration;

something never witnessed by the international community ever before. Also, "climate refugees" misfit into the cloak of all sundry economic migrants. Economic migrants may get subdivided into two poles-apart groups, e.g., the dreamer, and the desperate. The former category constitutes those otherwise well off yet dream to prosper by means of migration from source state; from less developed source state to more developed destination state. The latter category- like "climate refugees"- constitutes those endangered and, therefore, desperate to get migrated by means of migration from source state; from more problematic source state to less problematic destination state. In the latter case, the source state often than not suffers from structural violence, e.g., famine, epidemic, extreme poverty, hunger, malnutrition, etc. The "climate refugees", however, suffers from a *sui generis* genre of humanitarian crisis and their vulnerability went acknowledged by UN High Commissioner for Refugees (the UNHCR);[34] with ideation of an altogether newer category: "other people in need of international protection."[35] After the refugee

[34] Hazards resulting from the increasing intensity and frequency of extreme weather events, such as abnormally heavy rainfall, prolonged droughts, desertification, environmental degradation, or sea-level rise and cyclones are already causing an average of more than 20 million people to leave their homes and move to other areas in their countries each year.
UNHCR, The climate crisis is a human crisis. Available at: https://www.unhcr.org/what-we-do/build-better-futures/environment-disasters-and-climate-change/climate-change-and.

[35] The category "Other people in need of international protection" was first introduced in mid-2022 reporting and refers to people who are outside their country or territory of origin, typically because they have been forcibly displaced across international borders, who have not been reported under other categories (asylum-seekers, refugees, people in refugee-like situations) but who likely need international protection, including protection against forced return, as well as access to basic services on a temporary or longer-term basis.
Other people in need of international protection, in the (UNHCR) Refugee Data Finder. Available at: <https://www.unhcr.org/refugee-statistics/methodology/#:~:text=The%20category%20%E2%80%9COther%20people

regime, here lies the location of islanders migrated from small-island-states out of sea-level-rise-induced risk to land elsewhere, in another state. The character of such forced migration from small-island-state out of sea-level-rise-induced risk, therefore, represents a newer category of forced migration; with functional impact of persecution behind their blue diaspora by structural violence, without immediate human agency behind, to 'push' these islanders by means of 'force,' thereby get migrated elsewhere, to destination state.

Taken the teleologic sight upon hitherto course of the forced migration discourse, a slow-yet-steady paradigmatic shift took place with the threshold of human civilization. While forced migration was primarily initiated with the hostile Nature or other species hostile enough to 'push' humankind from default habitat to elsewhere in ancient times, there is a swap, or role reversal, in modern times. Accordingly, one community plays predator to 'push' another from default habitat to elsewhere by the use of force. Indeed, like earlier times, humankind continues to get migrated by means of blind brutal force of hostile Nature in contemporary times. However, character of such natural hostility underwent a paradigmatic shift. Unlike earlier times, otherwise docile nature is abetted by anthropic enterprises; undertaken in the recent times. Thus, what *prima facie* appears to be the wrath of hostile Nature is at bottom the aftermath of anthropic sin in a way or other, culminated through the circuitous routes; something hereby pleaded by the author with sea-level-rise-induced risk in the small-island-states. In final count, modern humankind

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%20in,been%20reported%20under%20other%20categories%20>.

thereby engages self-defeating endgame, with a community getting succumbed to forced migration by the anthropic sin of other(s); either by overt or by covert violence, either way. The "blue diaspora" of so-called "climate refugees" from the small-island-states out of sea-level-rise-induced risk thereby finds systemic 'push' by covert violence; stated as "structural violence" in preceding paragraphs. The endgame of forced migration escalated to such extent that the UN refugee agency extended protection to safeguard the weaker from the stronger while newer challenges appear on the rise; "blue diaspora" is one such genre of forced migration out of structural violence.

The character of the refugee agency is critical to appreciate present state of affairs prevalent in a predatory civilization where basic human right is in need of protection from offensive human might by means of international human agency engaged by the UN High Commissioner for Refugees; such is present state of affairs in the civilization(!); albeit, devoid of humanity. With the passage of time, therefore, international rights organizations usurp responsibility to protect; something otherwise deliverable by states. What the doctrine falls short to depict are the narrative personae involved therein; with its title extended to express (read expose) the governmentality behind: the responsibility to protect humans from humans; to complete travesty of the premise and the promise extended by the epistemology of civilization. A silver line in the UN refugee law regime but lies here that the same extends their services to engage humans and safeguard those in need of international protection; thereby succeed objective of the UN Charter, 1945:

'maintenance of international peace and security.' Besides refugees, therefore, the UN agency extends humane refuge to 'all other persons in need of international protection.'

In the wake of Anthropocene, while almost all sundry quarters of the planet Earth- from Ocean floor to outer space- have received imprint of omniverse human enterprises, the role of following- with respective civilizational stakes- deserve contemplation: (i) sinner state; (ii) sufferer state; and (iii) the system. The anthropo-sinner states are those responsible for the release of greenhouse gases in open atmosphere and the same cause transboundary harm elsewhere; across the world. The sufferer states are those recipients of the brunt for climate sin of sinner states. The relevant international organizations with global jurisdiction taken together comprise the system meant for good governance of the international community. Whether or how far the migration is forced by default may be deciphered by the character of movement from source state to destination state. The anthropic sea-level-rise-induced risk is the culmination of the climate sin committed by the North-Westerners and the default brunt is primarily borne by the South-Easterners. Therefore, until the same is solicited out of reparation, movements from the South-East to the North-West ought to get construed by the Global South as economic migration; rather than forced migration. The devil states of the North-West, collectively responsible for sea-level-rise-induced risk, ought not to turn innocent choice as the states of refuge for the victims from the states of the South-East to get rid of sea-level-rise-induced risk since the choice

suffers from the absence of prudence; something cautioned by Kipling way back in the late-nineteenth century.[36] The migration within the Global South makes sense since the same serves the following: (i) negation of climate sin and sinner(s) alike; (ii) avoidance of allegations vis-à-vis economic migration in the name of sea-level-rise.

Last yet not least, the system (of international political economy) ought to shift toward 'degrowth'.[37] In the given whirlpool, while so-called 'doomsday' of humankind with the anthropic climate change appears predictable on the basis of scientific foresight, move toward degrowth is move forward toward progressive development of humankind. A malignant growth with counterproductivity, after post-development discourse, is taken antithetic to development; otherwise meant for comprehensive betterment of humankind. After the Westphalian international treaty, read with the UN Charter of 1945, the ideation of a society of nations calls for the comity of states in the international community with a great grandeur of maintenance of international peace and security. The nonrefoulment of so-called "climate refugees," therefore, contributes to, *erga omnes*, if not *jus*

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[36] All supplies very bad and dear, and there are no facilities for even the smallest repairs-SAILING DIRECTIONS.
Rudyard Kipling, *The Day's Work* (1898), Chapter titled, 'The Devil and the Deep Sea.' Available at: <https://www.gutenberg.org/cache/epub/2569/pg2569-images.html#link2H_4_0005>.

[37] Degrowth is a purposeful strategy to stabilize economies and achieve social and ecological goals, unlike recession, which is chaotic and socially destabilizing and occurs when growth-dependent economies fail to grow.
Jason Hickel *et al*, *Degrowth can work- here's how science can help*, nature, 12 December 2022. Available at:
<https://www.nature.com/articles/d41586-022-04412-x#:~:text=Degrowth%20is%20a%20purposeful%20strategy,dependent%20economies%20fail%20to%20grow>.

cognes, of the society of nations. The international community, however, is yet to avail the oracle anyway; either by judicial decisions of the courts with universal or regional jurisdiction, or by writings of highly qualified publicists in public international law. Here lies a default spirit of the society since time immemorial, irrespective of the identity of its subjects;[38] be the same a society of individuals, or of collectives, e.g., nation-state and its peoples.

[38] Emotional concord becomes a form of personal communication when it springs from a source that is mutually understood by the participants. Thus, it is more than sympathy as this is usually defined (an instinctive reaction to the visible signs of another's pleasure or pain). Perhaps the first and fundamental instance of emotional concord as true association is furnished by friendship or love.
Henry W. Wright, *The Basis of Human Association*, The Journal of Philosophy, Psychology and Scientific Methods, Vol. 17, No. 16 (July 29, 1920, p. 424).
Available at: <https://www.jstor.org/stable/pdf/2940436.pdf>.

THE (DISAPPOINTING) ROLE OF INTERNATIONAL LAW IN CIRCULAR ECONOMY

Judith S. Spiegel[*]

Abstract

Linear is out, circular is in. Reduce, reuse, recycle and the planet will be a better place. In reality, national focus is mainly on recycle, problems of overconsumption (the other two R's) are largely ignored. International law shows an even less ambitious approach. It does not address circular economy at all. All it really does, is to regulate and manage flows of (hazardous) waste, which has turned into a valuable commodity for the recycling industry. This is not surprising: where business aligns with a green(ish) agenda, it is not that hard to reach international consensus. Where it doesn't, i.e. when growth is no longer the starting point, it has so far been impossible.

1. INTRODUCTION

The amount of discarded clothes that Europe sends to Asia and Africa has tripled between 2000 and 2019 from 550 thousand tons to almost 1.7 million tons. The main reason: fast fashion. Affordable clothes of mediocre quality which consumers wear once or twice are clogging the system. The 1.7 million tons of discarded clothes of 2019 are equal to a quarter of the total annual consumption of clothes. Source of this data?

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Besides being an excessive user of water, textile is a big pollutant, not just because of its scale, but also because of the use of chemical products and the transportation from countries such as Bangladesh to markets thousands of kilometres away.[1] Europe does not have a large-scale textile recycling industry, as this would not be profitable. The bulk of the collected textile is shipped to sorting centres in Poland and other eastern European countries. A small part of good quality clothes ends up in second-hand markets in Eastern Europe, an even smaller part goes back to vintage-stores in Western Europe. The largest chunk goes to Africa (46%) and (back) to Asia (41%). Most of these clothes are of bad quality or damaged and cannot be reused. They end up in landfills, the informal waste sector or worse: in nature. And the problem is getting worse. By 2025 all European countries are obliged – including those who do not do so yet, to collect used garments.[2] Hence, the textile mountain will only grow, and so will the export volume of waste.[3]

The same thing is happening with plastics, e-waste, tyres, scrap metal etc.[4] Reports of toxic sites, polluted rivers, waste dumping by illegal factories and its health effects on people are

1 Society, 'The impact of textile production and waste on the environment' (*European Parliament*, 29 December 2020) <https://www.europarl.europa.eu/news/en/headlines/society/20201208STO93327/the-impact-of-textile-production-and-waste-on-the-environment-infographic> accessed 4 March 2023.

2 Briefing, EU exports of used textiles in Europe's circular economy (*European Environment Agency*, 27 February 2023) <https://www.eea.europa.eu/publications/eu-exports-of-used-textiles> accessed 4 March 2023.

3 Dylan van Bekkum, 'Europa stuurt drie keer zoveel afgedankte kleding naar Azie en Afrika, en verplaatst daarmee de textielhoop'*, De Volkskrant* (Amsterdam, 28 February 2023).

4 'The Rising Problem of Plastic Waste in India' (*Recykal*) <https://recykal.com/2022/08/08/the-rising-problem-of-plastic-waste-in-india/#> accessed 4 March 2023.

ubiquitous.[5] Waste trade has become a multi-billion-dollar industry in which waste is pushed around the globe. It also led China on 18 July 2017 to notify the World Trade Organization (WTO) that it would be imposing a ban on the import of certain kinds of solid waste – among which plastics - by the end of 2017.[6]

Something does not seem quite right here. What happened to the waste hierarchy of reduce, reuse, recycle, in *that* order? Why are all bets on recycle and why did that turn into seemingly uncontrollable and unsustainable flows of waste, sometimes ruining people's health and the environment? Don't we have adequate international instruments in place to make sure that this does not happen? Or does international (trade) law encourage shipping waste across the globe, turning it into a valuable commodity? And how is international law dealing with the other two Rs, those of reduce and reuse?

These questions will be answered in this paper. Existing instruments are analysed and valued for their contribution to a circular economy. However, focusing on the law alone does not do justice to the complexity of the problems of sustainability in general and circular economy in particular. Apart from legal aspects, there are economic, scientific, sociological, psychological and political

5 ' Turkey: Plastic Recycling's Impact on Health', (Human Rights Watch, 12 September 2022) <https://www.hrw.org/video-photos/video/2022/09/12/turkey-plastic-recyclings-impact-health#:~:text=(Istanbul%2C%20September%2022%2C%202022,in%20a%20report%20released%20today.> accessed 4 March 2023.

6 Kenneth Rapoza, 'China doesn't want the world's trash anymore. Including 'recyclable' goods.' (*Forbes*, 29 November 2020) <https://www.forbes.com/sites/kenrapoza/2020/11/29/china-doesnt-want-the-worlds-trash-anymore-including-recyclable-goods/?sh=1a4166f72904> accessed 5 March 2023.

dimensions to it, and they all interact with each other. Where needed, these aspects will be touched upon. Of all of them, law is the most reactive: it merely reflects the current state of economical, sociological and political affairs. In other words: law is only a frontrunner of change if policy makers want it to be. Studying the current status of international law is therefore not just a legal exercise, it is also – or maybe even foremost - an indication of where those policymakers currently stand when it comes to circular economy.

2. WEAKNESSES OF CIRCULAR ECONOMY

2.1. AN UNCLEAR, OR AT LEAST RATHER ONE-DIMENSIONAL, NARRATIVE

To have a meaningful analysis of circular economy and international law, the first thing we need to do is to set straight what we are talking about. That is easier said than done. Despite the circular economy being widely embraced, its concept is far from clear, and is interpreted in different ways. In an attempt to find the essence of circular economy, Kircherr cs. analysed 114 definitions as used in both doctrine and practice.[7] They conclude that many authors entirely equate circular economy with recycling and that practitioners (policy makers, businesses, business consultants, business associations, business foundations and so on) frequently neglect 'reduce' in their definitions of circular economy. The researchers suggest that practitioners especially prefer not to include 'reduce' in their definitions as this would come down to curbing consumption

7 Julian Kirchherr, Denise Reike & Marko Hekkert, 'Conceptualizing the circular economy: An analysis of 114 definitions' (2017) Resources, Conservation & Recycling 127, 221-232.

and economic growth. And indeed, reducing and to a lesser extent reusing means less consumption, hence – possibly, at least on the short term - less growth. And that, Kircherr cs. find, is not the purpose of circular economy according to most of their source material. On the contrary: circular economy is often cited as an avenue for economic prosperity.

Circular economy thus lacks a clear definition, or rather: it evolved into a much narrower concept than it was originally intended to be. A similar thing (as in narrowing the definition to what is suitable to particular users) happened around thirty years earlier with the term sustainable development, to which circular economy is supposed to contribute. In 1992, Chapter IV of Agenda 21[8] stated:

> *"Special attention should be paid to the demand for natural resources generated by unsustainable consumption and to the efficient use of those resources consistent with the goal of minimizing depletion and reducing pollution. Although consumption patterns are very high in certain parts of the world, the basic consumer needs of a large section of humanity are not being met. This results in excessive demands and unsustainable lifestyles among the richer segments, which place immense stress on the environment."*

Five years after Chapter IV saw the light, Salzman concluded that policy- and lawmakers had largely ignored its message and that environmental law concentrated on laws that deal with waste management, neglecting to address the reason that waste is produced

8 Vol II, Agenda 21 (Rio Di Janerio, 14 June 1992) A/CONF.151/26.

in the first place: consumption.[9] Then and now consumers are rarely outlined as enablers of sustainability and circular economy. By sticking to this one-dimensional agenda of "circular resource and waste recapture, the circular economy retains its economic growth project status".[10] The project, is the idea, is based on increasing demand for continuous consumption, which people no longer see as problematic as materials will be recycled. Critics find this a worrisome development; they fear that the concept may "ultimately end up as just another buzzword in the sustainable development discourse."[11]

2.2. CRITIQUES OF THE TECHNICAL EFFECTIVENESS OF RECYCLING

Why is it a problem if the focus is on 'recycle'? Isn't recycling a good thing? It is certainly better than dumping waste in landfills or the ocean. And instead of mining copper ore, it makes (much) more sense to recover and recycle copper from scrap. The problem is: recycling has its limits and might not be the panacea it presents itself to be. Society mistakenly thinks that recycling is the revolutionary innovation that solves all environmental problems, say it critics. They argue that its value and effectiveness have been taken for granted too long, whereas in reality much is unclear, unproven or outright ineffective.[12] The concept disregards scientific knowledge, in particular the fact that even cyclical systems consume resources and create waste and emissions: "every loop around the circle creates

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9 James Salzman, 'Sustainable Consumption and the Law', (1997) 27(4) Environmental L. 1243-1294.

10 Hervé Corvellec, Alison F. Stowell & Nils Johansson, 'Critiques of the circular economy', (2022) 26 J. of Industrial Ecology 428.

11 Kirchherr et. al. (n 7) at [229].

12 Corvellec et. al. (n 10).

dissipation and entropy, attributed to losses in quantity (physical material losses, by-products) and quality (mixing, downgrading). New materials and energy must be injected into any circular material loop […]"[13] Circular economy policies do not take (enough) into account the fact that most of circular economy ideas involve the use of biomass, energy and mineral reserves, nor do they take into account the global transport movements that are often required.[14]

Plastics form about 80% of total global waste, with around 400 million tons produced annually. The same qualities that make plastics so useful, their durability and resistance to degradation, also make them nearly impossible to break down for nature.[15] So recycling sounds like the solution. However, plastic recycling is not really circular, as even cyclical systems consume resources, require energy and create emissions and waste.[16] Furthermore, plastics cannot be re-recycled infinitely. With each recycle the quality of the plastic diminishes, until its downcycled into something that will most likely end up in a landfill after all. This is not the place – nor is the author qualified - to go further into the technicalities of (plastic) recycling, but the bottom line is clear: "a selective focus on recycling will not be enough to solve large-scale production and consumption challenges".[17]

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13 J.M. Cullen, 'Circular Economy: Theoretical benchmark or perpetual motion machine?' (2017) 21 J. of Industrial Ecology 483.

14 The European Union alone exported 40.6 million metric tons in 2021, see *Statista* report at https://www.statista.com/topics/7943/global-waste-trade/.

15 'Our planet is choking on plastic' (*UNEP*, January 2022) <https://www.unep.org/interactives/beat-plastic-pollution/> accessed 5 March 2023.

16 Corvellec et. al. (n 10).

17 Corvellec et. al. (n 10) at [427].

3. (HOW) ARE THESE WEAKNESSES REFLECTED IN THE LAW?

Does international law reflect these weaknesses of the circular economy, or does it fix them? Let us see which circular economy related laws are 'on the market'.

3.1 INTERNATIONAL LAW AIMED AT RECYCLING OR RATHER: WASTE

There are no international laws that force consumers or companies to recycle.[18] However, because recycling is profitable it has turned into a multi-billion-dollar international business. A business that needs recyclable waste and the transboundary shipment thereof.[19] And for *that,* there is international law. Faced with illegal international trade in wastes, particularly from developed to developing countries, the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal came into being.[20]

Its key objective is the reduction of hazardous waste production and circulation. Despite this objective, the convention mainly focuses on the efficient management and flow of hazardous waste across countries. It does not ban waste, nor does it set a cap on

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18 The European Commission recently proposed new rules to reduce packaging waste through increased mandatory recycled content in plastic drink bottles and targets for reuse of take-away cups and materials used for online deliveries. The proposal needs approval by the European Parliament and the Council of the EU before it becomes law.

19 According to the World Bank the world currently generates 2.01 billion tons of waste a year, which will increase to 3.40 billion tons by 2050. Around 33 percent ends in open dump, 37 percent ends up in a landfill, 11 percent is incinerated, 5 percent is composted and 14 percent is recycled., see The World Bank report at https://datatopics.worldbank.org/what-a-waste/trends_in_solid_waste_management.html

20 The Convention on the Control of Transboundary Movement of Hazardous Wastes and Their Disposal of 22 March 1989 (1673 U.N.T.S. 126).

waste transfer.[21] In the negotiating stages of the convention, a ban on all transboundary movements of hazardous waste was actually proposed, mainly by member states of the African Union, but opposed by most OECD countries and some developing countries such as India and Pakistan. Instead of a ban, a compromise (between a total ban and free trade) of prior informed consent was agreed upon.

The convention prohibits transboundary shipment of hazardous waste unless the environmental authorities of the countries of import, export and transit have been given advance notice of a proposed shipment, in detail. Each country must then confirm that the transaction provides for environmentally sound management, and issue a written consent to the shipment. Until that written consent has been given, the proposed shipment cannot begin. Furthermore, parties are expected to minimize the amount of waste that is moved across borders, to treat and dispose of wastes as close as possible to their place of generation and to prevent or minimize the generation of wastes at source. Enforcement is left to the member states, as it is for the prevention and punishment of illegal traffic in waste.

Other instruments built along the model of the Basel Convention are the 1988 Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade, the 1991 Bamako Convention on the Ban of the Import into Africa and the Control of Transboundary Movement and Management of Hazardous Wastes within Africa, the

21 ibid, art. 4.

1995 Waigani Convention to Ban Importation into Forum Island Countries of Hazardous and Radioactive Waste and to Control the Transboundary Movement of Hazardous Wastes within the South Pacific Region, of 1988 and the 2001 Stockholm Convention on Persistent Organic Pollutants. All these instruments have in common that for the shipment of waste, prior consent of the receiving state suffices and that there is no effective ban, or a cap, on waste.[22]

The EU has a waste regulation (EC 2013/2006) which supervises and controls shipments of waste within its borders and with the countries of the European Free Trade Agreement, the Organisation for Economic Cooperation and Development (OECD) and non-EU countries that have signed the Basel Convention. It lays down rules for controlling waste shipments in order to improve environmental protection. It incorporates the provisions of the Basel Convention and the revision of the OECD's 2001 decision on the control of transboundary movements of wastes destined for recovery operations (where waste is processed to be turned into a usable product or converted into a fuel).

Not all waste falls under a convention, such as non-hazardous waste. This goes for certain types of scrap metal, textiles, paper etc. Trade in such waste is thus free. Until recently, it was not clear whether (and which) plastics were to be considered hazardous. In 2019, the Conference of the Parties (COP) to the Basel Convention adopted amendments to Annexes II, VIII and IX, adding plastic

22 For a more detailed description of the convention cf. Pierre Marie Dupuy, Jorge E. Vinuales, *International Environmental Law,* CUP (2018) at 273-278.

waste to fall under the convention. This has not (yet) happened for e-waste, another area of waste-concern. E-waste as such does not fall under the convention, but the toxic elements that most e-waste do. However, lax law enforcement in some countries and well-organized international criminal networks made illegal e-waste a lucrative business.[23] Electronic waste might be improperly labelled to hide its hazardous nature, or disguised as usable or second-hand electronics, or sometimes even presented as humanitarian donations.[24]

3.2 SHIPS AS CARRIERS OF RECYCLABLES, AND AS RECYCLABLES THEMSELVES

An often-forgotten part of the circular economy is shipping. A lot of circular economy activities – and especially recycling – requires shipping. It makes critics doubt the sustainability of the circular economy as the environmental impact of shipping is significant, just by the sheer size of shipping movements alone. Besides that, it is often overlooked that ships themselves eventually turn into (valuable) waste as well. Oil tankers, cruise liners, bulk carriers and other old ships are being rammed onto a beach in South Asia – a practice called beaching.[25] Poor unskilled workers take apart

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[23] ' Report: Pollution crime is highly profitable, organized and harming the planet' (*Interpol*, 4 August 2022) <https://www.interpol.int/News-and-Events/News/2022/Report-Pollution-crime-is-highly-profitable-organized-and-harming-the-planet> accessed 6 March 2022.

[24] Kaustubh Tapa, Walter Vermeulen, Pauline Deutz & Olawale Olayide, 'Transboundary movement of waste review: From binary towards a contextual framing', (2023) 41(1) Waste Management & Research 52-67; Gary Cox, 'The Trafigura Case and the System of Prior Informed Consent Under the Basel Convention – A Broken System?' Law, (2010) Environment and Development J. 265-281.

[25] Ships usually reach the end of their commercial life after 25-30 years, but market conditions may force owners to scrap even newer ships. India, Pakistan and Bangladesh house 95% of the world's shipbreaking capacity. Not only do their beaches have ideal tidal conditions for ship breaking, but labour is cheap. On top of that, health and safety laws are absent or not

the vessel with simple tools such as blowtorches, often dressed in nothing more than a lungi and flip-flops. Every single piece of the ship is recycled (for the most part into construction steel) or reused, which makes it at first sight a sustainably sound option. However, workers regularly get injured or die and chemicals leak into the ocean when the tide comes in.

Ships sailing under EU-flags are not allowed to bring end-of-life ships to these beaches.[26] But, with re-flagging so easily done, shipowners found a way around this. In a nutshell, this is how they do it: When a ship reaches the end of its commercial life, the owner sells it to what is known as a cash-buyer. Cash-buyers are companies specialized in the buying and selling of end-of-life vessels. They pay the owner up front, who from thereon has nothing to do with the ship anymore. The cash-buyer sells it to whichever shipbreaker offers him the most for the vessel. Such an end-of-life sale usually includes a change of flag to one of the typical 'last voyage flags', flags of states that are not very concerned with basic environmental and human rights standards for ship-breaking, enabling the owner to beach his ships at one of the notorious ship-breaking yards in South East Asia.[27] This re-flagging is legal.[28]

The cash-buyer furthermore registers the vessel under a new name and a new (PO box) company. By using cash-buyers, the

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enforced.

26 EU Commission Implementing Decision 2020/95.

27 These yards are notorious for deplorable environmental and workers' health and safety conditions, see www.shipbreakingplatform.org.

28 Judith Spiegel, 'The Notion of Sovereignty in Relation to Flag States: Regulating Flags of Convenience', (2021) 10 Kuwait International Law School Journal 39-62.

original ship owners avoid legal, financial and other risks related to selling a ship for breaking to a beaching yard. They can claim not to be responsible for the demolition of the ship if criticised for the poor standards under which their vessel is broken.[29]

The Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships 2009 covers the design, construction, operation and maintenance of ships, as well as preparation for ship recycling. It aims to ensure that ships when being recycled at the end of their operational lives do not pose any unnecessary risks to human health and safety and to the environment. The responsibility will be on the member states under which flag a ship is sailing and the ship recycling facilities operating in member states. The problem is: the convention has not entered into force yet.

3.3 INTERNATIONAL CIRCULAR ECONOMY LAW IS WASTE LAW

All in all, there is a rather extensive patchwork of waste-laws, all of which in one way or another regulate a global multi-billion-dollar waste trading business. As such they do support recycling. Existing international law thus facilitates the narrow circular economy narrative of recycling. It "purifies and expiates waste's corrupted nature by transforming it into a valuable commodity."[30] Again, this is not negative per se, recycling waste is still better than dumping it in the ocean, but waste flows are only desirable if the products are

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29 www.shipbreakingplatform.org

30 Olivier Barsalou and Michael Hennesy Picard, 'International Environmental Law in an Era of Globalized Waste', (2018) Chinese Journal of Environmental Law 889.

shipped, processed and recovered in an environmentally and socially sound manner, which they often are not.

The processing of waste causes systematic environmental and human rights violations. Besides that, as we have seen before, it is not just the legal and social impact of recycling that is questionable, its technological value is increasingly criticized as well. And finally, even if all recycling would be done in an environmentally and socially sound manner, there is simply a limit to the amount of waste that can be recycled. By retaining a narrative - and consequently law - that focuses on circular resource and waste capture, the circular economy will continue to recycle materials and consumption will be treated as a sustainable and thus unproblematic activity, creating more waste.

Ideally, there will be no more waste and thus no more waste law. That, however, is still wishful thinking.[31] Until then, a re-shift to what happens before things turn into waste is needed. For example, some products are designed to be difficult or impossible to repair when they break, either because they are glued together or contain parts that require a special tool to make repairs. These constraints mean that when the product breaks, it is almost always destined for a landfill. How can we stop that from happening? Part of this can be achieved on the production side: less packaging, smart design etc. Another part by reducing and reusing the amount of products we buy. Do we have (international) law for that?

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31 Chris Backes, 'Law for a Circular Economy', Utrecht Center for Water, Oceans and Sustainability Law, Inaugural Address, 12 April 2017, available at <https://www.uu.nl/sites/default/files/rgl-ucowsl-backes-law_for_a_circular_economy.pdf>.

3.4 (INTERNATIONAL) LAW AIMED AT REDUCING WASTE

Consumption, or rather sustainable consumption, garnered very little legal attention so far. Sustainable consumption – which covers both *better* and *less* consumption[32] - has not been translated into any international instrument. Thus far, in circular economy terms: the first 2R's are largely neglected by international environmental law, which is – as we have just seen - essentially international waste management law. Perhaps inspiration can be found on the national and regional (mainly EU) level, with an ever-growing number of policies and laws. Most of them are sectoral; they deal with a specific topic such as the pollution of water, eco-design requirements for specific products or the management of waste.[33]

EPR, Extended Producer Responsibility laws for example, are trying to extend the producer's responsibility to the post-consumer stage of the life cycle of a product. Countries with EPR legislation in place, often have waste-responsibility schemes in place for specific product groups, such as packaging waste or end-of-life vehicles. The assumption under EPR is that producers would consider environmental considerations when designing their products. Who is responsible for what is not always clear in these schemes and not every country has the (practical and regulatory) facilities to effectively

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32 Ipishta Chaturvedi, 'Sustainable Consumption: Scope and Applicability of Principles of International Law', (2018) 2 Chinese Journal of Environmental Law 5-27.

33 For example: Directive 2000/53/EC of the European Parliament and of the Council of 18 September 2000 (as amended by Decisions 2002/525/EC, 2005/437/EC and 2005/438/EC) on end-of-life vehicles; Directive 2002/ 96/EC of the European Parliament and of the Council of 27 January 2003 on waste electronic and electrical equipment; and European Parliament and Council Directive 94/62/EC of 20 December 1994 on packaging waste.

implement these schemes.[34] Furthermore, these schemes mainly focus on waste and fail to look at the entire lifecycle of a product.

Recently a new more integrated life cycle approach is emerging. It deals horizontally with products, regulating them before they are produced. Such an approach, which one of its pioneers, calls *codex rerum* - the law of things - would regulate all aspects in the life of a product.[35] What would such a *codex rerum* look like? In short: it would only permit the marketing of sustainable products which have been licensed following a product impact assessment. This assessment takes place before market launch and throughout the ongoing marketing of the product. No license means no sale and a breach of license would entail administrative or criminal proceedings. The product impact assessment would take into account issues such as eco-design requirements, as for example laid down in the EU Eco-design Directive[36], complemented with voluntary European standards. The *codex rerum* procedure would cover: development of the product; application for licence; product impact assessment (by a regulatory body with stakeholders' and scientific or technical committees); issuing of licence (with or without conditions) dependent on satisfactory outcome of product impact assessment; marketing of product; and, finally monitoring.[37]

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34 Katrien Steenmans, 'Extended Producer Responibility: An Assessment of Recent Amendments to the European Waste Frameweork Directive', (2019) 15(0) L. Environment & Development J. 1-16.

35 Rosalind Malcolm, 'Life cycle thinking as a legal tool: a codex rerum', 15(2) L. Environment & Development J. 210-223.

36 Directive 2009/125/EC of the European Parliament and of the Council of 21 October 2009 establishing a framework for the setting of eco-design requirements for energy-related products.

37 Malcolm (n 35) at [223].

The end-goal of this approach is "to achieve better products". It is not to curb consumption of products as "such a result would be politically and economically unacceptable". [38] As realistic as this observation may be, it is still a rather conservative approach as buying something, even if that something is green, is still worse for the environment than buying nothing. If policies and laws mainly address how well we consume rather than how much we consume, the effect is still marginal at best. "Our cars may have catalytic converters and we may choose more fuel-efficient cars, but we still may each have three or more cars," is how Salzman put it three decades ago. It is not hard to extrapolate this to the electric cars of today.[39]

The same applies to circular economy: the things we buy might be more recyclable or more efficiently packaged, we still buy too many of them. It might even stimulate consumption: "When the feeling of an iPhone turning 'old and slow' is combined with the feeling of an iPhone being circular or 'green by design', any critical, politicising impulse in the environment-wary consumer gets repressed by the intense want for the newest iProduct".[40]

A more far-reaching approach is therefore that of those who advocate legislation to promote sustainable consumption, thereby not just making consumers buy better products – products that would

38 Malcolm (n 35) at [214].
39 Salzman (n 9) at [1267].
40 Francisco Valenzuela & Steffen Böhm, 'Against wasted politics, a critique of the circular economy', (2017) 17(1) Ephemera 23-60.

pass the product impact assessment of *codex rerum* – but to make them buy less products. Do we have (international) law for that?

3.5 (INTERNATIONAL) LAW AIMED AT REDUCING CONSUMPTION

Here too, there is no international law dealing with curbing consumption, and there are very few domestic and regional laws for *less* consumption (as opposed to *better* consumption). What we do have, are interesting proposals. One of the most far-reaching is that of the 'hierarchy of consumption behaviour'. Maitre-Ekern and Dalhammar have elevated the concept of regulating consumption behaviour by the introduction of a binding hierarchy. The purpose of this hierarchy is to mandate policy and lawmakers to prioritise action areas. The hierarchy looks as follows, from top (highest priority) to bottom (lowest priority): 1) avoiding purchase of low-quality short-lived products, 2) maintain and repair, 3) share, 4) lease, 5) buy second-hand, 6) buy quality, 7) recirculate or (in the worst case) recycle. It is worth noticing that recycling is at the very bottom of the hierarchy, which shows how far behind international environmental law is with its one-dimensional focus on recycling.[41]

Where possible, the hierarchy is supported by specific legislative measures. For example, low-quality short-lived environmentally burdensome products could be banned, such as already existing single-used plastic bans.[42] There could also be a ban on advertising certain products. Manufacturers could be required to

41 Eléonore Maitre-Ekern & Carl Dalhammar, 'Towards a hierarchy of consumption behaviour in the circular economy', (2019) 26(3) Maastricht J. European & Comparative L. 394-420.

42 Directive (EU) 2019/904; see also Plastic Waste Management Amendment Rules, 2021, section 3(i).

make durable quality products that are easy to repair and disassemble. Repair and maintenance could be supported by mandatory consumer guarantees, mandatory information about/availability of spare parts, VAT reduction for the repair sector and tax deductions for consumers who choose to repair rather than replace their products.[43]

Beyond all this, more direct economic incentives and tax policies might be needed as well, such as internalizing the social and environmental costs of products and reflecting them in their price. This might not only slow down consumption but would also function as an awareness system, as currently people rarely know what the real costs of a product are, nor has much attention been paid to it by international law. Chaturvedi points out that "this is the reason why many can purchase a T-shirt from a resource that is harvested, sown, sewn and transported for a price less than what one might pay for a sandwich and never even question the transaction."[44]

4. WHY IS IT SO HARD TO MAKE INTERNATIONAL LAWS FOR REDUCE AND REUSE?

It is clear that international law that deals with circular economy only deals with just one R: recycle. It has also become clear that of the three Rs - while still better than dumping waste or mining for non-renewables - recycle is the least desirable when it comes to sustainability. It is also the easiest to achieve on the international

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43 Sweden has introduced tax breaks on repairs for consumers goods, bringing the VAT down from 25% to 12%. For big items such as refrigerators consumers can claim half of the labour costs back on their income tax. The European parliament is working on right to repair legislation that would, among other things, give consumers the right to repair within the guarantee period.

44 Chaturvedi (n 32) at [20].

level, as it primarily comes down to upgrading waste to business. And where trade interests are aligned with circularity, it is relatively easy to reach international consensus. Making money by being circular is a policymakers' win-win scenario. Making less money by being circular not so much. Perhaps this is best illustrated by a television interview by CNN 's Carol Costello with environmentalist Kalle Lasn, who tries to plug "Buy Nothing Day" on Black Friday:

"Black Friday is like a tradition," said Costello. "People love to go out on this day and shop. We absolutely love it. Why do you want them to quit shopping? "But, but think about it," said Lasn. "…Those millions of people who went shopping today, I think what they're missing is, they don't quite understand the consequences of their consumption. Because overconsumption has ecological consequences. You know that, uh, overconsumption is in some sense the mother of all our environmental problems." "O come on! Environmental problems?" "Yes, environmental problems! Every single purchase that you make has some kind of impact on the planet. …I believe that overconsumption in the rich countries of the world is one of the root causes of terrorism. I believe that this huge inequity…" "O come on, come on," Costello interrupted him with a smile, "if someone wants to buy their kid an Elmo doll, what's the harm in that?"[45]

Besides probably being an accurate account of the mindset of the majority of consumers in (parts of) the developed world, it also

45 CNN, 'Stop Shopping Kalle Lasn Interview by Carol Costello, on Anderson Cooper 360 degrees', (26 November 26 2004) <https://www.youtube.com/watch?v=PPQY_Cb4IlI> accessed 8 March 2023.

shows why it is relatively easy to make recycle laws (no one has problems with recycling Elmo into cleaning cloth) and very hard to make reuse (many might have problems with reusing a pre-owned Elmo) and reduce laws (even more might have problems with somehow being barred from buying Elmo or Elmo being very expensive).

Consumption is driven by many different factors, which makes changing patterns difficult. There are social and cultural factors (consumer society versus a more environmentally conscious society), environmental factors (cold versus hot climate), geographical factors (agricultural land versus industries, long or short distances) technological factors, wealth factors and population factors. As we have seen in proposals such as the *codex rerum* and the hierarchy of consumption behaviour, the proposed measures to change consumption patterns are mainly technical; eco-design, tax measures, pricing measures, labelling. The question is, are these enough to change what seems to have become the human nature of over-consumption?

Many think that this is especially a hot topic when it comes down to developing and underdeveloped countries, as one can demand to buy nothing or buy good but expensive quality from the billions of people in developing countries, whose alleged dream it is to possess all that their peers in the developed world have? A dream that was fed by years of promoting globalization, supported by WTO laws. In reality it is at least as questionable whether those of the developed world are ready to buy less. It is also an underestimation

of consumers in developing countries. India for one, has a high level of sustainable consumption (and a low consumption rate per capita).[46]

Furthermore, this finger pointing is moot. Already in 1997, the United Nations Environment Programme Regional Office for Europe wrote in a report: "Much more is at stake than environmental quality or social equity – what is a at stake here is the very long-term survival of the global ecosystem as a provider of human needs for human society as we know it. […] We know that nothing less than a revolution in the way we think and act will suffice. We must not only point at what we are doing better – we must do it differently. [47]

But we still don't do it differently. Not only don't we have any significant international laws to do it differently; we might even have international trade law that gives headwind if we want to do it differently. Just have a look at how the WTO legal system 'behaves' when it comes to circular economy.

4.1 WTO AND CIRCULAR ECONOMY

When China decided to ban certain types of solid waste, it notified the WTO, and not the Basel Secretariat. This is no surprise as waste has by now turned from something useless into a valuable commodity, of which the free trade flow is protected by rules of the WTO. Upon announcing the solid waste-import ban, the United

46 Shivi Chhaberiya, 'Green Consumerism and Sustainable Consumption' (2020) 19 Supremo Amicus 493.

47 'Understanding consumption patterns: a better way towards action' (*Economic Commission for Europe*, 2 February 1998) <https://unece.org/fileadmin/DAM/env/europe/workshop/unepppap1.e.pdf> accessed 8 March 2023.

States, the EU, Canada, Australia and Korea questioned it at WTO levels. The ban, they said, was creating issues for traders and the issue was "of great interest to their business sectors".[48] And indeed, the ban led to a massive disruption and rerouting of the western waste management system.

No state eventually challenged China. Perhaps because this would have been diplomatically and morally awkward as it would come down to: 'you must open your borders for our waste'. And perhaps also because it might not have been easy, legally. Firstly, they would have to argue that China violates the national treatment requirement of GATT by treating 'like' foreign recyclables different from Chinese recyclables. Secondly, that the Basel Convention does not prevail over WTO law. And thirdly that, even if China indeed can be deemed to have violated its GATT obligations, it cannot rely on the exception of art. XX (b) GATT which allows countries to take certain measures of these protect human, animal or plant life and are necessary to achieve that policy goal.

It is true that WTO case law sets the bar high to meet the art. XX (b) GATT exception, but especially the *Brazil – Retreaded Tyres Case* gives reason to believe that China might successfully invoke the exception. In short, Brazil imposed an import ban of retreaded tyres, for environmental and health concerns. The EC (now EU) complained that the ban was against GATT rules. Brazil did not deny

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48 'China's import ban on solid waste queried at import licensing meeting' (*World Trade Organization*, 3 October 2017) <https://www.wto.org/english/news_e/news17_e/impl_03oct17_e.htm> accessed 8 March 2023.

this, but argued it was justified as a necessary measure as provided for in art. XX (b). The Appellate Body agreed with Brazil and allowed considerable flexibility as to the necessity-requirement by stating that a measure does not have to be indispensable and that its effect does not have to be immediately observable, thus opening the door for other cases related to global warming and climate change.[49]

Another example: When the EU notified its Eco-design Directive to WTO – as it is required to do under the Technical Barriers to Trade Agreement (TBT)[50] – China commented that the requirements deviated from international standards, which made it hard for manufacturers to comply with them.[51] Notably, China did not choose to institute the complaint in the WTO dispute settlement system. There has never been a case brought before WTO dealing with eco-design requirements and WTO-compliance, so again we cannot rely on existing case-law.

China would need to argue that these are non-tariff barriers that fall under the Technical Barriers to Trade agreement, a *specialis* under GATT and that requirements regarding the process and production method (PPM) whereby a product is made is not covered – and thus not allowed – by the TBT agreement when such PPM does not affect the characteristics of such a product. In other words, whether a toy is produced in a factory with enormous carbon

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49 'Brazil — Measures Affecting Imports of Retreaded Tyres' (*World Trade Organization*, 25 September 2009) <https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds332_e.htm> accessed 8 March 2023.

50 Agreement on Technical Barriers to Trade, 1868 U.N.T.S. 120, art 2.9.

51 Directive 2009/125/EC establishing the framework for the setting of eco-design requirements.

emissions or in a clean factory, does not matter, it is still a toy and trade restrictive requirements about clean production methods are not allowed.

It is by no means unthinkable that such an argument would be succesful as "rules prescribing that the production process of a product comply with minimum labour conditions, maximum carbon emission levels or animal welfare requirements" are considered PPM's and "there is some debate" on whether such requirements are allowed by the TBT.[52] WTO itself writes on its website: "[…] trade restrictions cannot be imposed on a product purely because of the way it has been produced". And also: "One area where the Trade and Environment Committee needs further discussion is how to handle — under the rules of the WTO Technical Barriers to Trade Agreement — labelling used to describe whether for the way a product is produced (as distinct from the product itself) is environmentally-friendly."

However, what might - and should - be argued that eco-PPM's *do* affect the characteristics of a product, that these products are by definition not 'like' if their production process and environmental impact is so different. Furthermore, according to established WTO case law, to determine the 'likeness' of a product, consumer preferences, perception and behaviour can also be taken into account. Consumers might find eco-PPMs so relevant that they would find an otherwise perfectly substitutable product 'unlike'. This

52 Peter van den Bossche & Denise Prévost, Essentials of WTO Law, (2nd edn CUP) at 174.

will differ from market to market and "must be examined on a case-by-case basis".[53]

Similar debates are to be expected for border tax adjustment initiatives, such as the upcoming EU Carbon Border Adjustment Mechanism (CBAM). The mechanism aims to prevent 'carbon leakage', the situation when companies based in the EU move carbon-intensive production abroad to countries where less stringent climate policies are in place, or when EU products get replaced by more carbon-intensive imports. The CBAM would put a fair price on the carbon emitted during the production of carbon intensive goods that are entering the EU, and to encourage cleaner industrial production in non-EU countries. The introduction will be gradual, starting with some carbon intensive sectors such as cement, steel, aluminium and fertilizer. The CBAM will ensure the carbon price of imports is equivalent to the carbon price of domestic production, and that the EU's climate objectives are not undermined. The CBAM is supposed to be compatible with WTO-rules.[54] But not everyone is convinced it is, and disputes might follow.[55]

Now, these are all disputes that did not take place (yet) and predicting outcomes is not necessarily easy, nor does it matter that much for our purpose. What matters is that the WTO is still firmly

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53 Mitsuo Matsushita, Thomas J. Schoenbaum, Petros C. Mavroidis & Michael Hahn, *The World Trade Organization, Law, Practice and Policy* (3rd edn OUP 2015) at 191.

54 'Carbon Border Adjustment Mechanism: Questions and Answers' (*European Commission*, 14 July 2021) <https://ec.europa.eu/commission/presscorner/detail/en/qanda_21_3661> accessed 8 March 2023.

55 Emily Benson, 'CBAM Precedents: Experts Weigh In' (*Center for Strategic & International Studies*, 8 September 2022) <https://www.csis.org/analysis/cbam-precedents-experts-weigh> accessed 9 March 2023.

on the side of free (waste) trade and much less so on the side of measures that might curb trade and consumerism. Disruptions of free trade are only exceptionally allowed and the WTO is still far from adopting an '*in dubio pro natura*' approach. It thus plays a suboptimal role in sustainability, including circular economy. This, Matsushita cs say is "the *conditio sine qua non* for a legal regime that covers economic intercourse between […] states with wildly different value systems and political priorities."[56] Some argue that environmental PPMs seek to force changes in production and other practices in foreign countries. That might be true, but doesn't the same go for, for example, safety regulations for cars? It is also true that some exporting developing countries might not be able to comply with the requirements. The application of eco-design regulations and standards products can create difficulties for countries where these standards are more difficult or expensive to meet. Environmental PPMs would thus create more inequality, and support should possibly be provided. But all this might be moot if – to put it dramatically – the planet no longer exists.

5. CONCLUSION

We have established that the circular economy suffers from definition-volatility, a lack of proven operational efficiency and a one-dimensional waste approach, largely ignoring the part of (over)consumption. We have also briefly noted that the international law that sees to circular economy is merely reactive; innovative thinking precedes the law and not vice versa. This is reflected by the

56 Matsushita et. al (n 53) at [190].

fact that international environmental law is mainly concerned with the recycle-part of the circular economy, and only accidentally so. Instruments such as the Basel Convention deal with hazardous waste management, which happens to be part of the recycling process. They do *not* cap or stop the endless trade flows of waste across the planet. On the contrary, they help turn waste into a valuable commodity where rules of free trade apply. As to national or regional (especially EU) legislation that attempts to curb the production of waste, either by better or less consumption; these might even find barriers in international trade law. It is therefore safe to say that international law is by no means a frontrunner in the struggle for a greener world.

Of course, international law is not a living organism but a reflection of the will of nations. And thus far the will of most nations, and consequently international law, is still defined by the paradigm of growth: "The proposition that economic growth is *good*, *imperative*, essentially *limitless*, and the *principal remedy* for a litany of social problems."[57] Policy- and thus law making in the field of sustainable development in general and circular economy in particular focuses on better production rather than less production, and to an even lesser extent on better consumption leave alone less consumption. Cutting back on the paradigm of economic growth is still a no-go area.

Even a long-term attempt such as the UN plastic pollution agreement might at best only aim at using less plastic. But plastic will then be replaced by something else, say bamboo, which is not

57 Gareth Dale, 'The growth paradigm: a critique', (2012) 134 International Socialism.

necessarily better. There is therefore a growing belief that only if the paradigm (and with it the law) changes from growth to un-growth there is hope for "junkyard planet."[58] Environmental law – whether national or international - will have to change too. It should address forces that drive consumption and devise policies and laws to radically change those patterns. It should focus on sobriety rather than abundance.[59] A new direction towards less consumption should be addressed more seriously and more urgently. Policies and laws directed at consumption should encompass environmental impacts throughout the entire lifecycle of a product: extraction, production, transport, distribution, use and disposal.[60] Laws regarding building materials, green procurement, eco-design of all products (and not just energy-related products) are needed.[61]

This is obviously a herculean task and to leave it to individual states, countless NGOs and international organizations, might not be (efficient) enough. Perhaps it is time to consider a world environmental organization, equipped with strong enforcing mechanisms. The WTO – which is clearly not managed to reduce trade barriers substantially, now it is time for a WEO to increase barriers for uncircular production and consumption.

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58 Adam Minter, *Junkyard Planet, Travels in the Billion-Dollar Trash Trade* (Bloomsbury 2013); Francisco Valenzuela & Steffen Böhm, 'Against Wasted Politics, A critique of the circular economy, organizing for the post-growth economy', 17(1) Ephemera J. 23-60; Swati Agarwal and Mihir Mathur, 'Curbing Consumption is the Only Way Out to Avoid Climate Change' (*The Wire*, 5 October 2015) <https://thewire.in/environment/curbing-consumption-is-the-only-way-out-to-avoid-climate-change> accessed 10 March 2023.

59 Backes (n 31) at [61].

60 Salzman (n 9) at [1256].

61 O.V. Mikichurova & I.V. Vlialko, 'Circular law as a legal basis for a circular economy', (2021) IOP Conference Series: Earth & Enviromental Science 915.

A LEGAL ANALYSIS OF TRANSFER AND COMPULSORY LICENSING OF GREEN TECHNOLOGY IN INDIA TO MITIGATE CLIMATE CHANGE

*Rohan Cherian Thomas**

Abstract

Amid devastating climatic events across the world, there is a chilling acknowledgment that these are consequences of climate change. Mitigation efforts to reduce the anthropological footprint are underway. Having set ambitious targets under the Paris Agreement, States are scrambling available resources to various sectors. There is little doubt that novel technological intervention can speed-up mitigation efforts. Intellectual property, though, forms a tough barrier in accessing these new technologies. Specifically, rights of the patentee to control such access coupled with generative-dominance of the trading-North over green technology. For a developing country like India, this conundrum presents a mighty challenge. On the one hand it must honor its international intellectual property protection obligations and on the other, build its own technological capacity. This paper looks to assess and analyze the manner in which the latter would result through transfer of green technology by patent holders in India. Where the patentee poses persistent transfer barriers, the paper highlights the law enabling non-voluntary access in India. Where such transfer has an urgency, the paper analyzes the scope of non-voluntary access within the international intellectual

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property law framework and its implementation in India. It also examines Indian policy initiatives in enabling wide-scale absorption of green technologies.

INTRODUCTION

The 3rd of July 2023 was the hottest day recorded, ever.[1] In the same month, Yamuna River overflowed in New Delhi, submerging many areas and forcing displacement of thousands – again, an all-time record.[2] Recent research at the highest glacier on Mount Everest – South Col Glacier has found that in just the last 25 years, it has lost thickness of up to 54 meters.[3] Back in 2019, a headline had caught my attention – Delhi's garbage monument: Ghazipur landfill's mountain of waste to be taller than Taj Mahal by next year.[4]

Scientists and climate change activists have foretold the effects of unsustainable anthropogenic activities on the earth's climate. The events cited above are incredibly worrying. Such is the case that States cannot outrun these warnings by living in denial

1 'World Registers Hottest Day Ever Recorded on July 3' *The Hindu* (4 July 2023) <https://www.thehindu.com/sci-tech/world-registers-hottest-day-ever-recorded-on-july-3/article67044106.ece> accessed 25 July 2023

2 Sanskriti Falor, 'Yamuna Water Levels Cross Record High amid Floods in Delhi. What Happened?' *Hindustan Times* (New Delhi, 12 July 2023) <https://www.hindustantimes.com/cities/delhi-news/delhi-floods-yamuna-river-water-level-record-heavy-rainfall-monsoon-101689145521379.html> accessed 25 July 2023

3 Binaj Gurubacharya, 'Mount Everest Was First Scaled 70 Years Ago. Climbers Celebrate the Milestone as Climate Change Concerns Grow' *PBS* (26 May 2023) <https://www.pbs.org/newshour/world/mount-everest-was-first-scaled-70-years-ago-climbers-celebrate-the-milestone-as-climate-change-concerns-grow> accessed 25 July 2023.

4 'Delhi's Garbage Monument: Ghazipur Landfill's Mountain of Waste to Be Taller than Taj Mahal by next Year' *OpIndia* (2 November 2019) <https://www.opindia.com/2019/11/delhi-pollution-air-quality-ghazipur-landfill-garbage-mountain/> accessed 25 July 2023.

anymore. Climate change is upon us and unless urgent actions are deployed, we are soon to face catastrophe.[5] International efforts in this direction have been ongoing for several decades, especially with the establishment of the United Nations Framework Convention on Climate Change (UNFCCC) in 1992. Under the Paris Agreement of the UNFCCC, States are working towards achieving their Nationally Determined Contributions (NDC). NDC is an ambitious target to tackle climate change set by individual States by themselves under the framework of the Paris Agreement.[6] Biotechnology and Environmentally Sound Technologies (EST)/Green Technologies are playing and will play a tremendous role in mitigation efforts. Agenda 21 provides a detailed understanding of environmentally sound management of biotechnology.[7] Whereas UNFCCC speaks of EST, and the commitment of developed countries to facilitate access and promote sharing of its know-how with other States.[8]

The Green Future Index is a report prepared by the Massachusetts Institute of Technology (MIT), the third edition of which has been published in 2023.[9] It makes a comparison of 70 States in their move towards developing a sustainable model of green governance, inclusive of investments in green technology, agricultural processes, etc. India languishes at the 50th rank in this list. India's

5 'UN Says Climate Change "out of Control" after Likely Hottest Week on Record' *TheGuardian* (7 July 2023) <https://www.theguardian.com/environment/2023/jul/07/un-climate-change-hottest-week-world> accessed 25 July 2023.

6 Paris Agreement, opened for signature 22 April 2016, 46 ILM 993 (2017) (entered into force 4 November 2016) art 3.

7 Agenda 21, UN Doc A/CONF.151/26/Rev.1 (Vol. I), 1992, chapter 16.

8 United Nations Framework Convention on Climate Change, opened for signature 9 May 1992, 1771 UNTS 107 (entered into force 21 March 1994), art 3.

9 'The Green Future Index' (Massachusetts Institute of Technology 2023) 3 <https://mittrinsights.s3.amazonaws.com/GFI23report.pdf> accessed 29 July 2023.

commitment to improve its status can be seen from its issuance of sovereign green bonds in January and February 2023 which was a major success.[10] INR 16000 crores (USD 160 billion) received from these proceeds will be used exclusively for green investments.[11]

As per a report prepared by the Climate Policy Initiative, in order for India to meet its NDCs for the period 2015-2033, it requires INR 162.5 lakh crores (USD 2.5 trillion).[12] Seen from this data, as of now, India's capital generation falls considerably short of the projected estimate.

Climate change is caused by several factors. Targeted actions against each factor will holistically lead to a marked change. It goes without saying that every State must contribute significantly. Positive efforts in one part of the world faced against complacency in another, brings us all back to square one.

In the case of medical urgencies, intellectual property law seems to provide sufficient clarity. It is less unclear, whether a compulsory license can be issued in case of an environmental urgency. For instance, a patented technology's use to lower the temperature in a wide area. If yes, it could mean the difference between life and death.

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10 Navdeep Singh, 'India's Sovereign Green Bonds May Enhance Financing Capacity: Fitch' *The Economic Times* (10 February 2023) <https://economictimes.indiatimes.com/markets/bonds/indias-sovereign-green-bonds-may-enhance-financing-capacity-fitch/articleshow/97797068.cms?from=mdr> accessed 26 July 2023.

11 ibid.

12 Neha Khanna, Dhruba Purkayatha and Shreyans Jain, 'Landscape of Green Finance in India 2022' (Climate Policy. Initiative 2022) <https://www.climatepolicyinitiative.org/publication/landscape-of-green-finance-in-india-2022/> accessed 29 July 2023.

TECHNOLOGY TRANSFER AND BASIS OF COMPULSORY LICENSING

Patent rights are certain exclusive rights granted by the State to an inventor. In accordance with these rights, broadly, the patentee can prevent unauthorized making, selling and importing of the invention by another. In other words, a person would require a license from the patentee for such purposes unless there is an exception to the same created by the statute.

Because of exclusive marketing rights available with the patentee, he will engage in pricing which will help him recoup his investment along with profits. Pricing would also be influenced by the non-availability of possible alternatives. An exact alternative would no doubt be unavailable, as it would defeat the purpose of a patent, but nonetheless, it is possible that a workable alternative may be found in the market. Pricing is also influenced by the market appeal for the invention. A wide utility would mean that units could be priced at lesser rates. Similarly, a smaller utility would mean higher prices. Thus, with respect to pricing it is important to note that the consideration is one of 'reasonability'. If an unreasonable price were to be levied from the public, it could become a ground for non-voluntary licensing by the State. Certain States like India, require that apart from reasonable pricing and availability, a patented invention should be worked in the country.

Section 146(2) of Indian Patents Act 1970 (The Act) provides for periodical submissions pertaining to working of patents in India.[13] Rule 131 of the Patent Rules provides that the statement of working under Form 27 must be submitted for every financial year, within 6 months from the end of such financial year.[14] Working of Patents means that patentees ensure production activities on a commercial scale for the invention in India and not resort purely to imports.[15] Working is directly connected to the issues at hand, of technology transfer and compulsory licenses. I proceed to elaborate on the same.

Technology transfer is inherent within the structure of The Act. Our legislators knew that merely granting patent protection would not lead to any technological development for the country. It has not been an addition made to The Act after adopting TRIPS, but has been present since its original enactment. For a country whose governance works on a social-welfare model, it is imperative to ensure that grant of a patent is such that it does not defeat the purpose for which it was granted. Incentivizing creativity is only one aspect of grant of patent. The real test is one of utility.

The test of utility in this sense has two roles – one which is linear, based on the individual's personal use and the second is social utility. Both are matters of complex policy considerations for the State. It is not enough that an individual is getting access to the latest technology. Rather, it must be absorbed within the State's technological prowess.

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13 The Patents Act, 1970 s 146(2).
14 The Patent Rules 2003, r 131.
15 The Patents Act 1970, s 83(a) and 83(b).

Technology transfer is an important aspect of the UNFCCC. Without proper transfer of ESTs, climate change is a monster which States cannot control. Such transfers are extremely difficult to practically implement. Private entities which spend huge amounts of capital into research and development of ESTs would no doubt want to reap its commercial benefits through patent protection. Susan K Sell in her landmark text – Private Power Public Law points out how the CEOs of 12 companies heavily lobbied with their governments to bring in force a uniform global minimum standard of intellectual property.[16] While these were IT, agro-chemical and Pharma companies then, they were all part of the knowledge-industries. The EST sector is at par with these industries now, with IT companies like Google itself investing heavily in it.[17]

The argument in favor of strong intellectual property protection by these companies has been that it would enable dynamic efficiency.[18] Not only does the market support the existing endeavor, but also future intellectual creativity. A common example cited is that of the pharma industry, where blockbuster drugs enable the producer to use its rewards to further research and offset losses from other non-popular products. The severe effects of climate change mean that technological development in the EST-sphere has to happen now on a war-footing.

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16 Susan K Sell, 'Private Power, Public Law: The Globalization of Intellectual Property Rights' [2003] Cambridge University Press 1.

17 Jillian Ambrose, 'Google Signs up to $2bn Wind and Solar Investment' *TheGuardian* (20 September 2019) <https://www.theguardian.com/technology/2019/sep/20/google-says-its-energy-deals-will-lead-to-2bn-wind-and-solar-investment> accessed 31 July 2023.

18 Janusz A Ordover, 'A Patent System for Both Diffusion and Exclusion' (1995) 5 Journal of Economic Perspectives 43.

The UNFCCC emphasizes on the duty of developed countries to provide assistance to developing countries in terms of technology transfer but much is left to interpretation. Assistance could refer to the improvement of technological infrastructure within a State through funding and technical assistance. It could also be to work with their home-grown producers and incentivize them to progressively engage with developing countries in this context. The second dimension is more clearly expressed within the TRIPS Agreement, but is restricted in scope to least-developed countries.[19] And here too, the term 'mandatory' is conspicuously absent.

ENABLEMENT AND WORKING REQUIREMENTS

The enablement requirement in Patent Law is linked to this goal of utility. Enablement is one of the criteria for grant of patent by a State. Through the written description in the specification, the patentee must present the making of his invention in such a way that a person having average skill in the art (PASITA) is able to replicate that invention.[20] The Indian law on this point is quite clear. The notional person in the Indian law has been selected very carefully. Although this person for the purpose of inventive step consideration is a person skilled in the art,[21] for enablement, India has chosen a lower standard.

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19 Agreement on Trade-Related Aspects of Intellectual Property Rights, opened for signature 15 April 1994, 1869 UNTS 299 (entered into force 1 January 1995), art 66(2).

20 Chapter 5.03, Manual of Patent Office Practice and Procedure, Office of the Controller General of Patents, Designs and Trademarks, India (2019).

21 The Patents Act 1970, s 2(ja).

I will explain this difference. Inventive step is a very important criterion to be met for the purpose of grant of patent. The TRIPS Agreement provides that inventive step and non-obviousness can be used synonymously.[22] According to it, an inventor's solution to a problem must not be obvious to a person skilled in the art (PSITA). In the USA, this notional person is a person having ordinary skill in the art (PHOSITA). The difference between these terms is quite literal. Skill may be determined on the basis of experience, which may be industrial/practical or educational. If measured in terms of education, for e.g., in the engineering space, PHOSITA would be a person having a Bachelor's degree and a PSITA would mean a person with a specialization. In terms of obviousness then, a given invention would be more obvious to a person specialized in a specific art. Therefore, the threshold of inventive step for grant of patent in India is higher than that of USA. Data suggests that statistically this is true as well. The number of patents granted in USA for inventions is substantially higher than it is in India.[23] Not only that, it is also common in USA for drug manufacturers to receive patent grants for modifications of their existing patented formulations.[24] This leads to the problem of evergreening. The high threshold in India solves this problem of evergreening. For Pharmaceutical drugs, this is countered further

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22 Agreement on Trade-Related Aspects of Intellectual Property Rights, opened for signature 15 April 1994, 1869 UNTS 299 (entered into force 1 January 1995), art 27(1).

23 'IP Facts and Figures' (WIPO Statistics Database 2023) <https://www.wipo.int/en/ipfactsandfigures/patents> accessed 2 August 2023.

24 Berkeley Lovelace Jr., "'Gaming" of U.S. Patent System Is Keeping Drug Prices Sky High, Report Says' *NBC News* (15 September 2022) <https://www.nbcnews.com/health/health-news/gaming-us-patent-system-keeping-drug-prices-sky-high-report-says-rcna47507> accessed 2 August 2023.

with the help of Section 3(d) which prevents the grant of patent to formulations which do not result in an enhanced efficacy over and above what was patented earlier.[25]

The disclosure requirement in TRIPS provides that disclosure must be sufficient to meet the needs of a person skilled in the art.[26] By providing a more liberal standard, i.e., one of average skill, India requires a high degree of disclosure. While a PASITA may be hypothetically enabled by the specification, there is a core problem that would actually affect recreation – available technology.

Patented inventions in a highly technology intensive domain are very expensive and without the right kind of know-how, difficult to recreate. This is the reason why working on an invention in a country is so necessary.

'Working' in this context means production. To sell an invention in the market does not by itself meet the State's policy need for technological development, as mentioned before in this paper. If it were so, a patentee could simply import the invention into India and engage in its sale. By working it in India, the technological infrastructure becomes better, leading to better economic returns for the state and helping in technology transfer. Theoretically the PASITA would now be enabled technically through available technological infrastructure. Practically there are ways in which further dissemination can be restricted, i.e., through non-disclosure

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25 Section 3(d), Patents Act, 1970.

26 Agreement on Trade-Related Aspects of Intellectual Property Rights, opened for signature 15 April 1994, 1869 UNTS 299 (entered into force 1 January 1995), art 29(1).

agreements with the employees and trade secrets. Even if that is the case, it does increase the skill of workers in the State.

Non-working in India is a serious issue, capable of affecting the subsistence of patents. If within three years of grant of patent, the patent is not worked within the territory of India, the Government can issue a compulsory license.[27] If two years after grant of the compulsory license, it is still not worked by the patentee, it can be revoked by the Controller.[28] There are some safeguards which are offered within the statute, such as considerations which are beyond the control of the patentee.[29] This could be on account of restrictive border regulations imposed by the country, which has substantially affected the patentee's ability to work the patent in the country. This has to be decided on a case-to-case basis by courts. Non-working has faced its own issues in the recent past, with late Professor Shamnad Basheer filing a public interest litigation on the tardy process being followed in India in keeping track of inventions that were not worked in its territory.[30] Such was the scenario that the mandatory submission of information by patentees on working of their inventions was improperly filed. There was no way to know whether the invention was in fact being worked within India or not.

Interestingly, non-working and punitive action by States is not a standard provided within the TRIPS Agreement. It is through the application of the Paris Convention that India implements this

27 The Patents Act, 1970, s 84(1)(c).
28 The Patents Act, 1970, s 85(1).
29 The Patents Act, 1970, s 86(1).
30 *Shamnad Basheer v Union of India* MANU/DE/0752/2018.

standard.[31] Meaning thereby that action against non-working is not an international minimum standard that international corporations wanted as part of the TRIPS deal.

NON-VOLUNTARY LICENSING UNDER TRIPS

Article 30 of the TRIPS Agreement provides for a limited exception that may be granted by a State. Bolar exception is an important exception that comes under this head.[32] Eponymous to the case in which this exception was created, the Bolar exception is extremely important from the perspective of research in the industry. It allows for use of the patented invention in experiments, such as to allow competitors to timely file for marketing approvals of their products. Exceptions under Article 30 apply on a basis to the public at large, while Article 31 applies in an individual context.

It is in this sense that compulsory licenses fall under Article 31 though the term itself has not been specifically used. Article 31 provides an exhaustive list of conditions that must be in place wherein a Member allows 'other use' without authorization of the patentee. It is within this provision that an EST may be compulsorily licensed in case of a national emergency, extreme public urgency or public non-commercial use. The Doha Declaration on the TRIPS Agreement and Public Health, 2001, clarifies that these considerations apply to accessing essential medicines.[33] Paragraph

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31 Paris Convention for the Protection of Industrial Property, signed 20 March 1883, 320 UNTS 190 (entered into force 7 July 1884), art 5(4).

32 Roche Products Inc. v. Bolar Pharmaceutical Co., 733 F.2(d) 858 (1984).

33 Anders Karlsson, 'Green Technology Patents' (Stockholm University 2014) <https://www.diva-portal.org/smash/get/diva2:764784/FULLTEXT01.pdf> accessed 26 July 2023.

5(c) of this Declaration leaves it to the discretion of the Member State to interpret what is a national emergency and matters of extreme urgency.

India and China in the Beijing International Conference on carbon abatement technology transfers in November 2008, proposed that the compulsory licensing provisions in TRIPS covering pharmaceutical products should be extended to ESTs as well.[34] The premise for this extension, they stated that just like heath, climate too is a public good.[35] The Brazilian Foreign Minister at the UNFCCC Bali Conference in May 2009 suggested that a similar declaration on climate change, as that of the Doha Declaration on public health, would be beneficial for exercising TRIPS flexibilities for this specific concern.[36] The World Bank in its report on green growth for States, suggests that compulsory licenses should be considered for affordable access in low-income States.[37]

A fundamentally opposite argument is posed by the EU, Japan and WIPO – that unlike medicines for which the patentee is one entity, in climate technology market power is spread out over

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34 Copenhagen Economics and The IPR Company, 'Are IPR a Barrier to the Transfer of Climate Change Technology?' (European Commission (DG Trade) 2009) <https://www.copenhageneconomics.com/dyn/resources/Publication/publicationPDF/7/27/0/Are_IPR_a_barrier_to_the_transfer_of_climate_change_technology.pdf> accessed 28 July 2023.

35 ibid.

36 Lawrence A Kogan, 'Climate Change: Technology Transfer or Compulsory License?' (The American National Standards Institute Monthly Caucus, Washington DC, 15 January 2010) <https://nebula.wsimg.com/ca97555d1e891856a629c7089655e054?AccessKeyId=39A2DC689E4CA87C906D&disposition=0&alloworigin=1> accessed 29 July 2023.

37 'Inclusive Green Growth: The Pathway to Sustainable Development' (World Bank 2012) 78 <https://documents1.worldbank.org/curated/en/368361468313515918/pdf/691250PUB0Publ067902B09780821395516.pdf> accessed 30 July 2023.

several entities, thereby making compulsory licenses difficult.[38] Multiple industrial components come together to create a working green technology.

QUALIFYING THRESHOLD FOR COMPULSORY LICENSING

There are patent trolls in the international energy sector, who obtain patents over new energy solutions and shelve them.[39] This places an obstacle in the advancement of technology in the clean energy space and can be used for unfair commercial negotiations.[40] Air Pollution Prevention and Control of the US Code provides for a mandate in issuance of mandatory licensing, where the premise is such that an entity is unable to carry out activities due to barriers placed by the patentee.[41] This provision has never been used.[42]

While the conditions elaborated under Article 31 of TRIPS would have to be followed, a simplified three-step test to determine grant of compulsory license according to one author is as follows:[43]

1. Whether the green patent's entry through such a license is irreplaceable;
2. Weighing the losses and potential interests of the patentee from issuance of a compulsory license; and

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38 The IPR Company (n 34).

39 Pradeep S Mehta, 'Green Implications of Compulsory Licensing' *Financial Express* (10 September 2012) <https://www.financialexpress.com/india-news/green-implications-of-compulsory-licensing/1000252/> accessed 27 July 2023.

40 ibid.

41 Title 42 United States Code Chapter 85 Section 7608.

42 Mehta (n 39).

43 Qin Qian and Ren Yanying, 'Research on the Construction of Compulsory License System for Green Technology Patent in China' (2023) 24 Higher Education of Social Science.

3. If no compulsory license is granted, whether it would harm public interest.

This test establishes an objective qualifying standard for the award of a compulsory license. Its basis is the Preventive Principle in Environmental Law, wherein data on the risk posed by the environmental hazard is ascertained/ascertainable.

Issuance of compulsory license could also be done keeping in line with the Precautionary Principle. An author suggests that in order to do so, the following factors would have to be followed:[44]

1. Whether the threat is grave;
2. The threat poses uncertain risks;
3. Assessment of such risks in good faith; and
4. Objective necessity of measures deployed.

ISSUES WITH COMPULSORY LICENSING OF GREEN TECHNOLOGY

Common but Differentiated Responsibilities (CDR) is used as a firm grounding to refuse accelerated efforts in curbing developmental activities in favor of reduction of pollution. Developing countries like India cite the historical advantages gained by developed countries, during which period, they had no consideration for environmental protection. This period should fairly also be provided to developing countries. It is argued that it is technically possible to jump this divide, by adopting new technologies which are environment-

44 Jennifer R Andrew, 'Swine Flu, Bird Flu, Sars, Oh My - Applying the Precautionary Principle to Compulsory Licensing of Pharmaceuticals under Article 31 of Trips' (2011) 2 Michigan State Law Review 405, 440.

friendly.[45] In doing so, these countries will work in tandem with the world's sustainable development goals and aid in mitigation of climate change.

Economic backlashes may result on account of issuance of compulsory licenses.[46] These may be in the form of trade sanctions by States. An indication of possible trade sanctions for example, is the elevation of a country to the US Special 301 Report's Intellectual Property Priority Watch-list. India has featured on this annual report several times and is also there on the 2023 report.[47] Private corporations too may take action. An example is the action by Abbott Laboratories which refused to bring in its latest patented products into Thailand because of a compulsory license it granted against their patented drug Kaletra.[48]

Even if India were to award a compulsory license for an EST, it might find it difficult to exercise the same, as production capabilities simply aren't at par with tech-giants.[49]

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45 Robert Fair, 'Does Climate Change Justify Compulsory Licensing of Green Technology?' (2010) 6 Brigham Young University International Law & Management Review <https://digitalcommons.law.byu.edu/cgi/viewcontent.cgi?referer=&httpsredir=1&article=1066&context=ilmr> accessed 26 July 2023.

46 Kuei-Jung Ni, 'Legal Aspects (Barriers) of Granting Compulsory Licenses for Clean Technologies in Light of WTO/TRIPS Rules: Promise or Mirage?' (2015) 14 World Trade Review <https://www.cambridge.org/core/journals/world-trade-review/article/legal-aspects-barriers-of-granting-compulsory-licenses-for-clean-technologies-in-light-of-wtotrips-rules-promise-or-mirage/70A5A49BB9BFF252D383007BF18F1B24> accessed 28 July 2023.

47 United States Special 301 Report' (Office of the United States Trade Representative 2023) <https://ustr.gov/sites/default/files/2023-04/2023%20Special%20301%20Report.pdf> accessed 30 July 2023.

48 Fair (n 45).

49 Nitya Nanda, 'Diffusion of Climate Friendly Technologies: Can Compulsory Licensing Help?' (2009) 14 Journal of Intellectual Property Rights 241.

There are no specific studies which demonstrate that the grant of compulsory license will disincentivise creation of ESTs.[50] This is propelled by the fact that there is no clarity of rules and regulations that have been made for the purpose of ESTs particularly.[51] What we have in place is an overly large concept of public health, which can be interpreted by a State in a way that it creates a misbalance between public interest and patent rights.

Some International Investment Agreements (IIA) prohibit such compulsory licenses. For instance, the US Model Bilateral Investment Treaty in 2012 states that States parties would not require such transfer of technology, production process or proprietary knowledge to a person in its territory. [52]

THE COVID EXPERIENCE

COVID has provided an experiential learning on emergency issues and the inflexibility of international intellectual property regime. The devastating impact of COVID was marked parallelly by the reluctance of pharmaceutical companies in providing their formulations in open-source. The kind of benevolence shown by the inventor of penicillin was nowhere to be seen during this period. Had that been the case, many lives could have been saved. Instead, the world witnessed a vaccine war.

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50 Qian and Yanying (n 43).

51 ibid.

52 US Model Bilateral Investment Treaty (2012), Article 8; *See* Ji Ma, 'Moving from the Brown Economy to the Green Economy: The Battle over International Intellectual Property' (2022) 23 The Journal of World Investment and Trade <https://brill.com/view/journals/jwit/23/5-6/article-p947_10.xml> accessed 27 July 2023.

Dilution/Waiver of IP application during this period internationally would have meant that rapid measures could be engaged by States in eliminating barriers in production and distribution of vaccines. Countries with production capabilities such as India, could make mass generic versions and export it to countries in need.

Section 47 of The Act provides the conditions on the basis of which a patent is granted in India.[53] If the Government so requires, it can override patent rights, where the invention is going to be put for the Government's use. This blanket provision could have been used by the Indian government to import, produce and distribute patented technology without any authorization from the patentee. Section 100 sets out a more detailed process such as adequacy of the remuneration, wherein this condition is utilized.[54]

To the representations of India and South Africa at the WTO, much was left to be desired. The initial proposal presented by India and South Africa in 2020 was for a complete waiver of intellectual property on vaccines.[55] The final adopted version in June 2022 is a heavily diluted version of the same.[56] It merely extends to waiver of patent rights. This did bring in relief to an extent, but it lays bare the complex policy battles that have to be fought internationally,

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53 The Patents Act, 1970 s 47

54 The Patents Act, 1970 s 100

55 'Waiver from Certain Provisions of the TRIPS Agreement for the Prevention, Containment and Treatment of COVID-19' <https://docs.wto.org/dol2fe/Pages/SS/directdoc.aspx?filename=q:/IP/C/W669.pdf> accessed 31 July 2023.

56 'Ministerial Decision on the TRIPS Agreement, 17 June 2022' <https://docs.wto.org/dol2fe/Pages/SS/directdoc.aspx?filename=q:/WT/MIN22/30.pdf&Open=True> accessed 30 July 2023.

where intellectual property is involved. This policy entanglement means that countries are highly dependent on international cooperation for meeting their needs. Even if they were to import and force production, without the right technology and know-how, they would face substantial barriers.

INDIAN LAW ON COMPULSORY LICENSE

Grant of compulsory license to an applicant under The Act is based on three independent considerations:[57]

1. Public requirement has not been met reasonably;
2. Unavailability of invention at a price which is reasonably affordable;
3. Non-working.

Nowhere in Chapter XVI of The Act is there a limitation on the subject matter of compulsory licenses. There seem to be references in favor of the subject-matter being of an environmental nature, such as the impact on health posed by climate change. Under Section 83 which concerns general principles on patent working, two provisions point to this:

1. Patent protection should contribute to technology dissemination and transfer;[58] and
2. Patent should not be an impediment to public health protection.[59]

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57 The Patents Act, 1970 s 84(1)
58 The Patents Act, 1970 s 83(c)
59 The Patents Act, 1970 s 83(d)

Within Section 84, applications filed requesting issuance of a compulsory license have to undergo an examination by the Controller as to the capacity of the applicant to carry out responsibilities of the license. This examination is exempted in cases of national emergency or other circumstances of extreme urgency or in case of public non-commercial use.[60] Environmental considerations can very well fit within either a national emergency or other circumstances of extreme urgency. There is no interpretation of the same offered within the Patent Act. Patentees are given an opportunity to object to such a compulsory license.

Compulsory licenses can also result in such situations where there is no applicant. Section 92 of The Act provides with sufficient clarity that in cases of a 'public health crisis', no opportunity for objections needs to be provided. Therefore, it fast-tracks the process.

In cases where a foreign country is facing an emergency on account of an environmental reason, there is only a limited amount of support that India can provide. This is because of the effect of S.92-A. This provision was added in 2005 to The Act and is a direct consequence of the Doha Declaration on public health. The provision though is restricted to patented pharmaceutical products. The explanation to the provision expands on the meaning of pharmaceutical products.

INDIAN POLICY TANGLE

India's National Manufacturing Policy released in 2011 points out its vision to engage compulsory licensing for green technology

[60] The Patents Act, 1970 s 84(6) proviso

wherein the rates demanded by the patentee are unreasonable.[61] This Policy also provided for the creation of a Technology Acquisition and Development Fund (TADF).[62] The primary objective of the TADF was quite extraordinary, i.e., acquisition of appropriate Technologies and the creation of a patent pool of ESTs, which could be accessed by domestic manufacturers.[63] Secondary objectives included supporting the acquisition of green technology by MSMEs by part reimbursement to the extent of 20 lakh Rupees and incentivising use of technologies utilising non-renewable energy sources.[64]

Had the primary objective of TADF been followed in spirit, the following sustainable model would have likely been created:

1. Purchase of patented ESTs essential for India's most concerning issues; and
2. Open up the Patent pool for licensing on a reasonable basis for domestic manufacturers.

Such a model would have been a win-win situation for the Government as it would have promoted domestic manufacturing capabilities in ESTs and mitigated the environmental concern such as air pollution. Purchase of the patent could be solely limited to the territorial domain of India. Thus, the cost of purchase would be feasible. Being a government-initiative, which is pro-industry as well

61 'The National Manufacturing Policy, Government of India' <https://www.meity.gov.in/writereaddata/files/National%20Manufacturing%20Policy%20(2011)%20(167%20KB).pdf> accessed 29 July 2023.
62 ibid.
63 ibid.
64 ibid.

as pro-environment, this would not disincentivise the patentee. Since there is no profit-objective for the Government, they could just focus on retrieving the cost of purchase. The only issue pertaining to the patentee's interest may arise in context to exports. Contractual restrictions and strong border measures could alleviate this concern. This model would also work in a balance between private and public rights, therefore reducing the consideration of compulsory licenses.

Shyam Saran, the then climate change envoy to PM Manmohan Singh at the WIPO General Assembly in October 2007, stated that India wants:[65]

> "A global fund that could buy out IPRs of green technologies, and then distribute these technologies free, in a way that is similar to what is done for HIV/AIDS drugs."

It should thus be noted that the fund was meant to buy out technologies as its basic operation. This TADF model, if implemented, could have brought in a great level of technological development over more than a decade. Unfortunately, the TADF has been restricted to its secondary objectives. So much so, that it has changed hands. The TADF has shifted from the Ministry of Commerce and Industry to the Ministry of Micro, Small and Medium Enterprises.[66] As expressed by the then Minister of State for MSME, TADF is only a means for reimbursement and subsidy.[67]

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65 Kogan (n 36).

66 Technology Acquisition and Development Fund' <https://pib.gov.in/PressReleasePage.aspx?PRID=1485292> accessed 29 July 2023.

67 ibid.

Some commentators have claimed that an overt policy in favor of compulsory licensing of green technology could lead to scaring off investments in India.[68] Perhaps this criticism and warning had its desired effect, as no compulsory license has ever been issued for an EST.

CONCLUSION

India is a fast-growing economy. It's a country with the highest number of young population in the world today. What this also means is not long after, it will have the greatest number of old people. If urgent steps to counter climate change aren't undertaken, the present-day climate change crisis would prove to be extremely deadly.

Indian government's efforts are in the right direction. Some are having immediate impact, such as leveling of the overflowing Ghazipur landfill mentioned in the introduction to this paper. As of 2023, it is heartening to see that the Delhi Government is taking efforts in flattening this site and has set a deadline for December 2024 to bring it within regulatory requirements.[69] Other efforts have a more futuristic impact, like the commendable push by the Government in promoting acquisition and use of green technology by Indian MSMEs. But this is a restrictive application of the

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68 Seher Hussain, 'Indian Compulsory Licences for Green Technology Will Hurt India Most in the Long Run' [2013] *IAM* <https://www.iam-media.com/article/indian-compulsory-licences-green-technology-will-hurt-india-most-in-the-long-run> accessed 30 July 2023.

69 'Height of Delhi's Three Landfills Declines by 15 Metres Each in 7 Months: L-G House' *The Hindu* (24 March 2023) <https://www.thehindu.com/news/cities/Delhi/height-of-delhis-three-landfills-declines-by-15-metres-each-in-7-months-l-g-house/article66653684.ece> accessed 25 July 2023.

proposed policy in 2011. A full application would mean that licensing of EST would become easier. It would cut through unnecessary procedures and ultimately lead to the growth of technological capacity in India.

At a time when climate change is affecting everyone's life in serious ways, States must also take actions towards incentivising EST creativity. One way in which the US Government has propelled this interest is by providing for a faster patent grant process.[70] Another way is to reduce the registration and maintenance fees associated with the grant of patents. Like how for promotion of startups in India, they are charged reduced fees for the patent registration and maintenance processes.[71]

Corporate interests in maintaining strong intellectual property protection have its own merit. Only with the strong will of States to cooperate internationally in balancing these private proprietary interests along with vital issues of public importance such as public health can we see a global transformation. Until then, domestic policy decisions to initiate compulsory licensing or insistence on working of green technology in their domain is an undeniable flexibility.

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70 Jeffrey S Whittle, 'Green Innovation Being Fast Tracked by USPTO' (*Womble Bond Dickinson*, 8 June 2022) <https://www.womblebonddickinson.com/us/insights/alerts/green-innovation-being-fast-tracked-uspto> accessed 31 July 2023.

71 The Patent Rules 2003, first schedule.

CLIMATE CHANGE AND INTERNAL DISPLACEMENT

*Ashirbani Dutta**

Abstract

Climate change and internal displacement is one of the most striking issues in today's world. The impacts are manifested across the globe in the form of various disasters affecting large numbers and displacing millions. Effects of most of these impacts on the environment and human population are largely negative and they are detailed in this paper. They have been termed as 'dangerous' not only based on expert analysis but also on internal perceptions of the people affected. By such conceptualization, the paper demystifies the actual risks and harms suffered by the affected and displaced population on the ground. Particularly, when considering the needs and rights of the IDPs, it is suggested that any analysis should be victim-based, for only by placing the emphasis on the human impacts including the accounts of individuals likely to be affected can they be adequately protected, and possibly compensated, for any harm suffered as a result of climate change. In other words, scientific studies about emissions will have little relevance to the 'needs' of future IDPs other than to predict where and how it might impact on communities. A victim-based approach is the possible way forward for the protection of these displacees.

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1. INTRODUCTION

Climate change is a complex process and the phenomenon has various consequences on the environment as well as on all living species including human beings. However, the impact of climate change varies geographically on different regions and on human populations. Determination of its effect and impact on human beings, in particular with respect to population displacement, is difficult and complex due partly to the speed at which climate change is occurring and resultant displacement that has already occurred or occurring in many parts of the globe, and also due to the lack of an immediate and direct causal link between the carbon emissions and human impact of displacement. In the light of these difficulties and complexities, this paper aims to assess the impact of climate change on the human population, with particular reference to the issue of population displacement. Most of these impacts are harmful and the existing literature broadly defines them, in theories, as the 'dangerous' climate change impacts. The paper will mainly assess the ways of determining 'dangerous' climate change impacts and provide a possible approach towards treating the needs of the displaced population, as a way forward.

2. AN OVERVIEW OF THE IMPACT OF CLIMATE CHANGE AND POPULATION DISPLACEMENT

It has been already discussed that the impacts of climate change on human population across the globe is not uniform. It varies widely in nature and intensity, geographically. In some regions of the world, for example in Northern Russia and Greenland, global

warming may have positive impacts, or in a sense, beneficial effects on local population, for example increasing greening and cultivation, expansion of grassland and pastures. Elsewhere, by contrast, the effects are likely to be largely negative with impacts on human population becoming increasingly harmful, for example, increasing water shortage and drying up of land, leading to loss of food, water, cultivation, livelihood and other basic necessities of life in vast regions of Africa. Climate change disasters are not uncommon in the present time, but the sheer intensity and magnitude of these disasters are mostly unprecedented causing huge impacts on the human population, including displacement. Forced displacement across international borders due to sea level rise and sinking of Pacific Islands is already occurring, leading to situations akin to refugeehood. But a vast majority are internally displaced as people often lack resources, network and willingness to leave their original homeland and cross international borders. Internal displacement is, therefore, one of the most common occurrences in course of these events, that impact the overall life and living of these people. The harm and vulnerability caused not only by the intensity and frequency of these disasters but also by the experiences of displacement, generate the risk or danger threatening the survival of the affected and displaced people. It is the harmfulness or damage to the people that will determine the true human impact of these disasters (and hence often described by the experts as 'dangerous' climate change) and will generate the human needs and concerns on the ground.

Overall, these climate change impacts that are 'dangerous', are distributed in various regions across the globe. In the Arctic, with the melting of the polar ice, several regions are facing devastating consequences, with loss of marine animals and local species.[1] The overall change in the habitat is largely impacting the indigenous people (Inuit) and other resource-dependent communities by affecting their traditional food, clothing, housing, hunting practices and largely their way of life.[2] As a result, communities, like Inuit, are likely to be compelled to give up their traditional lifestyle and learn to adjust in the new habitat or may be forced to leave their land in search of alternate habitation. With such imminent threats, permanent displacement is inevitable sometime in future. Elsewhere in Russia, forest fires are causing devastating impacts on life, safety, property and health of communities,[3] already forcing people to leave their land and dwellings. These people who are displaced temporarily often try to return to their original homeland and rebuild their lives. In other regions such as South and South-East Asia, rising temperature, melting glaciers, change in precipitation and higher rainfall are already resulting in impacts such as glacial lake bursting,[4] landslides,[5] mudslides,[6] and devastating floods[7] causing massive

1 SH Schneider and J Lane, 'An Overview of 'Dangerous' Climate Change' in HJ Schellnhuber and others (eds), *Avoiding Dangerous Climate Change* (CUP, Cambridge 2006) 9, 11.

2 Ibid.

3 "Russia wildfires still spreading – 50 dead" BBC (London, 5 August 2010) <http://www.bbc.com/news/world-europe-10881892> accessed 16 August 2010.

4 Jyotsna Singh, 'What really happened in Uttarakhand' (Down to Earth, 3 July 2013) <http://www.downtoearth.org.in/news/what-really-happened-in-uttarakhand-41550> accessed 3 June 2014.

5 Ibid.

6 ' Death toll from flash flooding in India rises to 185' *BBC South Asia* (London, 11 August 2010) < http://www.bbc.com/news/world-south-asia-10937196> accessed 16 August 2010.

damage, destruction, loss of life, forced displacement and evacuation. Initially, in many cases, displacement is temporary as people try to return home soon after the impact. But depending upon the scale, intensity and frequency of the disaster, many people are, already, forced to leave their home forever due to repeated occurrences of such impact and fragile landscape. In other regions such as large parts of Africa, Asia and Australia, impacts are again likely to be generally different due to rising temperature, rising sea level and ocean warming, reduced precipitation and agricultural decline.[8] Vast tracts of land in Africa are increasingly affected by droughts and progressive desertification making areas increasingly uninhabitable. Potential threats of permanent displacement are increasingly obvious. Local farmers and population on such land are likely to suffer from acute starvation, loss of livelihood, shelter and other basic necessities of life and in extreme cases, they are forced to leave their land permanently. In fact, few places are already experiencing such permanent displacement. Yet again, disasters are likely to be different in low-lying areas, deltas, coastal regions of Asia, Africa and Small Island Nations in the Pacific. Environmental threats in these regions are likely to appear in the form of rising sea levels, inundation, shoreline change, change in precipitation, heavy rainfall, flooding, hurricanes, cyclones and tropical storms.[9] It is not only that people

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7 'South Pakistan floods displace a million in 48 hours' BBC South Asia (London, 27 August 2010) < http://www.bbc.com/news/world-south-asia-11105661> accessed 28 August 2010.

8 NW Arnell, 'Climate Change and Water Resources: A Global Perspective' in HJ Schellnhuber and others (eds), *Avoiding Dangerous Climate Change* (CUP, Cambridge 2006) 167-171.

9 SH Schneider and J Lane (n 2); N Mimura and others, 'Small Islands' in ML Parry and others (eds), *Climate Change 2007: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change* (CUP, Cambridge

are likely to be forced to flee the effects of cyclonic storms, surges and inundation, their miseries are likely to be multiplied by the rising sea level. Small island communities are increasingly facing the threat of complete inundation of their islands due to sea level rise, as vast tracts of land are slowly becoming uninhabitable with salination, inundation and encroachment of sea waters.[10] In worst cases, some of the communities are likely to be forced to relocate permanently in other parts of the country to come Internally Displaced Persons (hereafter IDPs). Occasionally, people are likely to be forced to cross the international border in order to survive in situations akin to refugees.[11] Leaving them aside, overall, it can be summed up saying that IDPs in many parts of the globe are at potential risk of permanent displacement due to various impacts of climate change. In some extreme cases, in fact, risks are imminent and people are already forced to leave their land and home permanently.

On the whole, it can be said that in many regions of the globe, climate change disasters are already causing or are likely to cause internal displacement of the population, affecting their overall life and living. Depending upon the nature, intensity and frequency of the disaster, whereas some regions are experiencing massive displacement, temporarily, especially in the aftermath of floods,

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2007) 690-702; RJ Nicholls and others, 'Coastal Systems and Low-Lying Areas' in ML Parry and others (eds), *Climate Change 2007: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change* (CUP, Cambridge 2007) 324-336.

10 N Mimura and others, 'Small Islands' in ML Parry and others (eds), *Climate Change 2007: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change* (CUP, Cambridge 2007) 690-702.

11 Jane McAdam, *Climate Change, Forced Migration and International Law* (OUP, Oxford 2012) 18-20, 31-36.

storms, cyclones, other regions are undergoing irregular and sporadic movement of the people, fleeing effects of droughts, desertification and sea level rise and who are forced to relocate permanently. Sometimes, people due to frequent occurrences of floods, storms, cyclones in the region and with fragile landscape are also forced to leave their home permanently. In all cases of permanent displacement, whatever is the impact, the harm, damage or human suffering caused not only on account of the impact of the disaster, but also by the experiences of such displacement, generate certain human issues and concerns on the ground. To understand these human needs engendered in these climate change disasters and displacement, it is important to assess the human consequences of these disasters (often described by the experts in terms of 'dangerous' climate change). On that note, the following section tries to evaluate the meaning of 'dangerous' climate change to assess the human needs and concerns on the ground.

3. DEFINING 'DANGEROUS' CLIMATE CHANGE

Experts, in theory, have explained the assessment of 'dangerous' climate change, and the extant research has used various indicators, such as anthropogenic interference, the explosion of uncertainties, vulnerability measurements, thresholds and subjective value judgments, to define it.[12] Overall, the definitions fall into two camps, in that they are either based on scientific risk-assessment[13] or on subjective value judgments. The definition of climate change

12 SH Schneider and J Lane (n 2).

13 Scientists consider 'dangerous' climate change with the element of risk by defining 'dangerous' as the product of probability and consequence.

based on scientific risk analysis conducted by experts and based on the system characteristics of the physical and social world is described as the 'external' definition[14] of 'dangerous' climate change. In other words, the danger or risk is defined on the basis of a threshold or a maximum limit of 'physical and social vulnerability', beyond which climate change consequences are recognized as endangering human existence. In this sense, 'physical vulnerability'[15] has been defined both in terms of (1) changes in the climate system due to greenhouse gas emissions, further multiplied by other uncertainties,[16] and (2) human vulnerabilities arising from a range of environmental impacts. As a result, when certain environmental consequences due to climate change, such as the destruction of coral reefs, the breakdown of the polar ice sheets, the stopping of the thermohaline cycle, have human consequences (such as threats to survival, loss of livelihood, threat to life, health, property etc.)[17] which threaten the existence of local populations, these factors are considered to be indicators of the 'dangerous' impact of climate change. This 'top-down' approach[18] assesses the danger of climate change by looking, not at it globally,[19] but by looking at its impact at the local level, in terms of the human consequences. Social indicators, such as poverty, lack of access to health or other services, determine the socio-economic conditions of

14 Ibid.

15 Ibid.

16 Various uncertainties due to carbon cycle response, global climate sensitivity, regional climate scenarios and the range of possible impacts that are likely to result, add further to the indeterminate character of global warming. Ibid.

17 ML Parry and others (n 10).

18 SH Schneider and J Lane (n 2).

19 Experts have defined limits to such global impact, in technical terms, through measures of 'dangerous anthropogenic interference' (DAI), a product of probability and consequences, at the regional and local level.

the population, their threshold and their adaptive capacity, which ascertains their social vulnerability[20] in the region. Such assessment is supported by a 'bottom-up'[21] account that it is based on the past experiences of the local community, their adaptive behaviour and variability, and constitutes a part of the 'external' definition. Be it a top-down or a bottom-up approach, overall, such assessment of 'dangerous' climate change is 'external' in the sense that it is observed or analysed by experts relying on various existing theories. Once the described thresholds are reached, and human adaptation and/or survival are challenged, the impact of climate change is recognized as being 'dangerous'. Based on this, it can be said that factors such as the nature of disaster, its intensity and frequency, environmental fragility of the location, the demographic weaknesses such as old age, poor health and ailing conditions and low income of the local population and low socio-economic conditions including weak infrastructure such as squatters, slums and settlements in vulnerable flood plains, lack of access to medical and health facilities, poor roads conditions, will determine the danger and risk to local population and once, the limits of human threshold are reached, beyond that impacts will result in harm and suffering of the people. Factors that generate such human consequences will help gauge 'dangerous' climate change.

The 'internal' definition of 'dangerous' climate change, on the other hand, is determined by the perceptions and experiences of

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20 S. Dessai, W. N. Adger, M. Hulme, J. Koehler, J. Turnpenny and R. Warren, 'Defining and experiencing dangerous climate change' (2004) (64) 1-2 Climate Change 11, 25.

21 SH Schneider and J Lane (n 2).

those individuals in danger on the ground, and is influenced by psychological, social, moral, institutional and cultural factors.[22] Here, danger is defined in terms of an individual's feelings, such as insecurity, humiliation, shame and deprivation, prompted by personal experiences in course of displacement such as marginalisation, or social exclusion, as well as individual values and conditions (such as lack of access to sources of information, anticipation and mistrust) associated with various climate change disasters and displacement.[23] Owing to these factors the same disaster may be perceived differently by different communities. Other factors (such as fear and uncertainty over the nature, intensity and frequency of future occurrences, and the adaptive capacity and response of the people dependent upon the environmental fragility of the location, demographic and socio-economic conditions) are also relevant in shaping the human perceptions of disasters. 'Internal' definitions are however likely to be tentative, partly because of the ambiguity in the available data, for instance, with respect to drought, the opinions of those affected and displaced are not widely available. This is because displacement in cases of drought and desertification are likely to be irregular and sporadic. Human perceptions are also fraught with inability to recognize the danger in the course of slow and incremental environmental decline. This means that the assessment of what is 'dangerous' in the given instance will often be incomplete or inaccurate. In many cases the communities or persons affected are often not sufficiently informed or educated enough to express their

22 S. Dessai, W. N. Adger, M. Hulme, J. Koehler, J. Turnpenny and R. Warren (n 21).
23 Ibid.

views about the impact of climate change. For this reason, there may be uncertainty about whether or not the impact of climate change is considered to be 'dangerous'. Furthermore, the opinions of individuals are determined by factors such as the age, bias, values and physical capacity of a particular individual. Thus the 'internal' definition of 'dangerous' climate change, in many instances, is likely to be far from accurate.

Overall, the study of 'dangerous' climate change - both 'external' and 'internal', will possibly give an overview of the threats that exist. Displacement intensifies these situations further. For instance loss of home, land, property and belongings as people flee floods or cyclones, lack of access to food, water, shelter and other basic necessities of life while people are being displaced, will certainly endanger human life and add to their miseries. Moreover, fear and anxiety due to experiences of displacement like looting, marginalisation and deprivation; uncertainty of the prospects of return or relocation and future – all of it shapes the human insight of climate change disasters. Meaning, internal displacement will certainly enhance risks, harm and suffering in these disasters and hence, impacts which are likely to result in population displacement, can certainly be perceived as 'dangerous'. That said, at any given point of time, it is understood that the study is likely to be vague owing to the uncertainties mentioned earlier. A study defining 'dangerous' climate change is likely to be generic. But, a range of factors will be instrumental to decide which of the climatic impacts are 'dangerous': the nature, intensity and frequency of disaster; environmental fragility

of the location, demographic weaknesses, the prospects of displacement, return or relocation and individual understandings.

4. PREFERENCE FOR A VICTIM-BASED APPROACH: A WAY FORWARD

The aim of the paper is to provide an approach for the protection of persons internally displaced by the impact of 'dangerous' climate change. As global warming progresses, most regions are likely to be affected in some way or the other. In most places as people continue to live in difficult conditions, in some regions climate change impacts are likely to be extreme or 'dangerous' resulting in these regions becoming increasingly uninhabitable (e.g. because of inability to grow crops or obtain fresh water). Sooner or later, millions of people will be displaced there. IDPs will also be forced to live in increasingly difficult living conditions even after return or resettlement, as climate change impacts are likely to continue. Extreme cases will entail permanent and continuing displacement. It is obvious that there is likely to be a reasonable amount of vagueness in defining these 'dangerous' climate change situations, and that definition might not fully capture all of those who have suffered or are likely to suffer harm and in need of protection framework. Thus, in the long-drawn and incremental environmental decline, any protection framework for IDPs should not only include protection for those living in a 'dangerous' or extreme situation but also those living in a growing condition of environmental vulnerability, such as those experiencing potential threats of displacement.

When considering the needs and rights of IDPs, it is suggested that any analysis should be victim-based, for only by placing the emphasis on the human impacts including the accounts of individuals likely to be affected can they be adequately protected, and possibly compensated, for any harm suffered as a result of climate change. In other words, it is suggested that scientific studies about emissions will have little relevance to the 'needs' of future IDPs other than to predict where and how it might impact on communities.

Thus, from an overall study of climate change impacts, it is suggested that the following criteria can be used to ascertain whether an impact is particularly 'dangerous': the nature of the disaster; the number of people affected and displaced; the future likelihood of occurrence; the degree of dependence of the people on the affected environment; the so-called tipping points or thresholds related to environmental components (for example what increase in temperature can wheat crops sustain); and factors relating to the people concerned (such as the degree of their exposure, access to resources, the socio-economic conditions, their adaptive capacity, and their internal perceptions). These factors are able, therefore, to help to define the way in which climate change factors have impacted on populations, including those which have been displaced. This approach suggests the mechanism for determining the at-risk populations in climate change disasters and displacement.

EVOLUTION OF THE GLOBAL CLIMATE FINANCE REGIME: SO CLOSE, YET SO FAR

Rahul Mohanty[*]

Abstract

This paper provides an account of the international climate finance regime. It starts by briefly addressing the aspects of justice and fairness attached to climate finance, and goes on to provide a historical overview of how climate finance was included in the climate action agenda and how it has evolved. It then points out some of its shortcomings from the perspective of third world countries. It ends with some reflections on how to break the deadlocks in climate finance negotiations and move forward.

1. INTRODUCTION

Since the awareness of human-caused climate change and the advent of the Anthropocene era, achieving political consensus on the need to cut down anthropogenic emissions has proven extremely tricky despite the scientific consensus on the issue. In spite of the existential nature of the threat posed by climate change, the issues of justice and fairness are central to any action taken to deal with it. Internationally, any action taken to deal with climate change inevitably needs to grapple with concerns of justice and equity and tackle the realities of stark global inequalities. International negotiations on climate action have often been stuck due to deep

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disagreements on how to distribute the burden of tackling climate change. To overcome the North-South divide and create workable plans for climate change, it has been long recognised that differentiation among countries regarding the obligations relating to climate action is required. Climate Finance, whether seen as a method of capability enhancement or as a measure of distributive justice, is a key part of this attempt to bridge the gulf between the Global North and the Global South.

This paper aims to provide an overview of the current state of global climate finance at the conclusion of three decades of the United Nations Framework Convention on Climate Change (UNFCCC). It seeks to look back at the purpose behind climate finance, interrogate its promise, and see to what extent that promise has been fulfilled.

The first part of the paper provides a brief overview of the history of the negotiations concerning climate finance within the larger climate change negotiations and in doing so gives an overview of the current international climate finance framework. The second part of the paper highlights the major inadequacies of the current framework and the insufficiency of the present climate finance flows towards mitigation and adaptation in developing countries.[1] The paper concludes with my thoughts on the possibilities available to the Global South countries to salvage the promise of climate finance.

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1 Note that I have used the words developing countries, Global South and the Third World countries interchangeably. Similarly, I have used developed countries and Global North interchangeably.

2. CLIMATE CHANGE NEGOTIATIONS AND CLIMATE FINANCE

Climate change is perhaps the single biggest problem internationally, having serious consequences for all areas of human activity, as well as for the non-human inhabitants of the planet, altering the geological record sufficiently to be arguably classified as an Epoch.[2] This has serious implications for the global ecosystem,[3] causing a sixth mass extinction event,[4] and even affecting the evolution of various species.[5] It also has a comprehensive impact on human society, affecting the survival of states,[6] human rights,[7]

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2 Jan Zalasiewicz et al., "The Anthropocene: A New Epoch of Geological Time?," (2011) 369 (1938) Philosophical Transactions of the Royal Society A: Mathematical, Physical and Engineering Sciences, https://doi.org/10.1098/rsta.2010.0339; Colin N. Waters and Simon D. Turner, "Defining the Onset of the Anthropocene," (2022) 378 (6621) Science, https://doi.org/10.1126/science.ade2310.

3 See for e.g. Gordon J. MacDonald and Luigi Sertorio, eds., Global Climate and Ecosystem Change, vol. 240, NATO ASI Series (Boston, MA: Springer US, 1990), https://doi.org/10.1007/978-1-4899-2483-4; Lindsey E. Rustad, 'The Response of Terrestrial Ecosystems to Global Climate Change: Towards an Integrated Approach', *Science of The Total Environment*, BIOGEOCHEMISTRY OF FORESTED ECOSYSTEM (BIOGEOMON, the 5th International Symposium on Ecosystem Behaviour, June 2006); Yadvinder Malhi et al., "Climate Change and Ecosystems: Threats, Opportunities and Solutions," (2020) 375 (1794) Philosophical Transactions of the Royal Society B: Biological Sciences, https://doi.org/10.1098/rstb.2019.0104.

4 See generally: Thomas J. Crowley and Gerald R. North, "Abrupt Climate Change and Extinction Events in Earth History," (1988) 240 (4855) Science, https://doi.org/10.1126/science.240.4855.996;John Harte et al., "Climate Change and Extinction Risk," (2004) 430(6995), Nature, https://doi.org/10.1038/nature02718; Telmo Pievani, "The Sixth Mass Extinction: Anthropocene and the Human Impact on Biodiversity," (2014) 25 (1) Rendiconti Lincei, https://doi.org/10.1007/s12210-013-0258-9.

5 Robert D. Holt, "The Microevolutionary Consequences of Climate Change," (1990) 5 (9) Trends in Ecology & Evolution, https://doi.org/10.1016/0169-5347(90)90088-U.

6 Ori Sharon, "To Be or Not to Be: State Extinction Through Climate Change," (2021) 51 (4) Environmental Law 1041–83.

7 For various resolutions of the Human Rights Council, 'Human Rights Council Resolutions on Human Rights and Climate Change', (United Nations) https://www.ohchr.org/en/climate-change/human-rights-council-resolutions-human-rights-and-climate-change accessed August 21, 2023, https://www.ohchr.org/en/climate-change/human-rights-council-resolutions-human-rights-and-climate-change; See also: "General Assembly Adopts Resolution Requesting International Court of Justice Provide Advisory Opinion on States' Obligations Concerning Climate Change | UN Press," (United

demographics,[8] international politics and security,[9] economy,[10] geographies,[11] race,[12] and gender,[13] to name but a few.

2.1. Inequal Causes and Effects of Climate Change: Justice Concerns

It is also clear that climate change does not affect everyone equally and often has a disproportionate impact on countries of the Global South and the marginalised, poorer, and disadvantaged peoples. Climate change, if not tackled properly, perpetuates and deepens the existing inequalities and oppressions. This gives rise to

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Nations, 29 March 2023) https://press.un.org/en/2023/ga12497.doc.htm accessed April 20, 2023.

8 See for e.g. Katherine J. Curtis and Annemarie Schneider, "Understanding the Demographic Implications of Climate Change: Estimates of Localized Population Predictions under Future Scenarios of Sea-Level Rise," (2011) 33 (1) Population and Environment https://doi.org/10.1007/s11111-011-0136-2.

9 See for e.g. Alan Dupont, "The Strategic Implications of Climate Change," (2008) 50 (3) Survival https://doi.org/10.1080/00396330802173107; John C. Pernetta, "Impacts of Climate Change and Sea-Level Rise on Small Island States: National and International Responses," (1992) 2 (1) Global Environmental Change https://doi.org/10.1016/0959-3780(92)90033-4; Sanjay Chaturvedi and Timothy Doyle, *Climate Terror* (London: Palgrave Macmillan UK, 2015), https://doi.org/10.1057/9781137318954.

10 Francesco Bosello et al., "Economic Impacts of Climate Change in Europe: Sea-Level Rise," (2012) 112(1) Climatic Change, https://doi.org/10.1007/s10584-011-0340-1; Benjamin H. Strauss et al., "Economic Damages from Hurricane Sandy Attributable to Sea Level Rise Caused by Anthropogenic Climate Change," (2021) 12 (1) Nature Communications 2720, https://doi.org/10.1038/s41467-021-22838-1.; Richard S. J. Tol, "The Economic Impacts of Climate Change," (2018) 12 (1) Review of Environmental Economics and Policy, https://doi.org/10.1093/reep/rex027.

11 Morey Burnham et al., "Extending a Geographic Lens Towards Climate Justice, Part 1: Climate Change Characterization and Impacts," (2013) 7 (3) Geography Compass, https://doi.org/10.1111/gec3.12034.; J. Samson et al., "Geographic Disparities and Moral Hazards in the Predicted Impacts of Climate Change on Human Populations," (2011) 20 (4) Global Ecology and Biogeography, https://doi.org/10.1111/j.1466-8238.2010.00632.x.;

12 Nancy Tuana, "Climate Apartheid: The Forgetting of Race in the Anthropocene," (2019) 7 (1) Critical Philosophy of Race 1–31, https://doi.org/10.5325/critphilrace.7.1.0001..

13 Irene Dankelman, *Gender and Climate Change: An Introduction* (Routledge, 2010); Sherilyn MacGregor, "'Gender and Climate Change': From Impacts to Discourses," (2010) 6 (2) Journal of the Indian Ocean Region 223–38, https://doi.org/10.1080/19480881.2010.536669.; Farhana Sultana, "Gendering Climate Change: Geographical Insights," (2014) 66 (3) The Professional Geographer, https://doi.org/10.1080/00330124.2013.821730.

serious justice and fairness implications.[14] Many scholars have approached climate change from the lenses of distributive justice,[15] historical justice,[16] earth justice (or multi-species justice),[17] and ethics,[18] leading to various theoretical frameworks for fairness and climate justice.[19] The scholarly disagreements on the most appropriate form of climate justice are only a small reflection of the practically intractable political disagreements among states while negotiating the climate change regime.

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14 Upendra Baxi, "Towards a Climate Change Justice Theory?," (2016) 7 (1) Journal of Human Rights and the Environment, https://doi.org/10.4337/jhre.2016.01.01; Sam Adelman and Louis Kotzé, "Introduction: Climate Justice in the Anthropocene," (2021) 11 (1) Oñati Socio-Legal Series.

15 Benito Müller, "Varieties of Distributive Justice in Climate Change," (2001) 48(2) Climatic Change, https://doi.org/10.1023/A:1010775501271; Lukas H. Meyer and Dominic Roser, "Distributive Justice and Climate Change. The Allocation of Emission Rights," (2006) 28(2) Analyse & Kritik, https://doi.org/10.1515/auk-2006-0207; Elkanah O. Babatunde, "Distributive Justice in the Age of Climate Change," (2020) 33(2) Canadian Journal of Law & Jurisprudence, https://doi.org/10.1017/cjlj.2020.13.

16 See generally: Derek Bell, "Global Climate Justice, Historic Emissions, and Excusable Ignorance," (2011) 94(3) The Monist 391–411; Lukas H. Meyera Roserb Dominic, "Climate Justice and Historical Emissions," in *Intergenerational Justice* (Routledge, 2012); Janna Thompson, "Historical Responsibility and Climate Change," in *Climate Justice and Historical Emissions*, ed. Lukas H. Meyer and Pranay Sanklecha (Cambridge: Cambridge University Press, 2017), 46–60, https://doi.org/10.1017/9781107706835.003.

17 Petra Tschakert et al., "Multispecies Justice: Climate-Just Futures with, for and beyond Humans," (2021) 12(2) WIREs Climate Change, https://doi.org/10.1002/wcc.699; Danielle Celermajer, Winter David Schlosberg, Lauren Rickards, Makere Stewart-Harawira, Mathias Thaler, Petra Tschakert, Blanche Verlie, Christine, "Multispecies Justice: Theories, Challenges, and a Research Agenda for Environmental Politics," in *Trajectories in Environmental Politics* (Routledge, 2022); Helen Kopnina, "Anthropocentrism and Post-Humanism," in *The International Encyclopedia of Anthropology*, ed. Hilary Callan, 1st ed. (Wiley, 2019), 1–8, https://doi.org/10.1002/9781118924396.wbiea2387; Ximena Sierra Camargo, "The Ecocentric Turn of Environmental Justice in Colombia," (2019) 30 (2) King's Law Journal, https://doi.org/10.1080/09615768.2019.1645433;

18 Stephen M. Gardiner, "Ethics and Climate Change: An Introduction," (2010) 1(1) WIREs Climate Change 54–66, https://doi.org/10.1002/wcc.16.; David Heyd, "Climaate Ethics, Affirmative Action, and Unjust Enrichment," in *Climate Justice and Historical Emissions*, ed. Lukas H. Meyer and Pranay Sanklecha (Cambridge: Cambridge University Press, 2017), 22–45, https://doi.org/10.1017/9781107706835.002.

19 Darrell Moellendorf, "Climate Change and Global Justice," (2012) 3(2) WIREs Climate Change 131–43, https://doi.org/10.1002/wcc.158; Baxi, "Towards a Climate Change Justice Theory?"; Paul Clements, "Rawlsian Ethics of Climate Change," (2015) 23(4) Critical Criminology 461–71, https://doi.org/10.1007/s10612-015-9293-4; Tahseen Jafry, *Routledge Handbook of Climate Justice* (Routledge, 2018).

Many developed countries often highlight the global nature and the urgency of climate change to highlight the need for urgent action by all countries. Some states, like the United States, have opposed any binding international obligation regarding emission reduction, especially if it puts a higher responsibility on them. On the other hand, Third World countries have often been skeptical of any environmental and climate action which does not consider their historical oppression as well as present disadvantages. They are also opposed to any binding emission cuts, which they feel will constraint their developmental goals and ossify their present inequalities, making their people remain eternally poor and backward compared to the First World. For instance, former Prime Minister of India Indira Gandhi criticized the approach of blaming an increasing population for environmental problems.[20] She highlighted the colonial history of many developed countries, their economic progress being fuelled by environmental destruction and colonial domination, and described poverty as the greatest polluter. This argument, representative of a similar feeling in most of the recently decolonised developing states, exposed a North-South divide in their respective approaches to environment and climate change.[21] Scholars from the Global South, such as Anil Agarwal and Sunita Narain, writing in 1991, exposed the unstated biases in scientific studies

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20 Malavika Rao, "A TWAIL Perspective on Loss and Damage from Climate Change: Reflections from Indira Gandhi's Speech at Stockholm," (2022) 12 (1) Asian Journal of International Law 63–81, https://doi.org/10.1017/S2044251322000066.

21 See generally: Karin Mickelson, "South, North, International Environmental Law, and International Environmental Lawyers," (2000) 11(1) Yearbook of International Environmental Law 52–81, https://doi.org/10.1093/yiel/11.1.52; Sumudu Atapattu, "Climate Change, International Environmental Law Principles, and the North-South Divide," (2017) 26(2) Transnational Law and Contemporary Problems 247–62.

which sought to share the blame for climate change with developing countries and restrict their developmental aspirations.[22]

Ever since the inception of global efforts to deal with environmental and climate issues, developing countries have highlighted the historical responsibility of the developed countries and current issues of distributive justice to require different standards for the First and Third Worlds. This ensures that climate action is not delinked from the issues of development and poverty alleviation, and does not become another method of neocolonialism and carbon-colonialism. In fact, attempts to restrict developmental goals of Third World countries to deal with climate change were seen as 'environmental colonialism'.[23] The Global South saw this as an attempt to whitewash the role and responsibility of Western countries in causing climate change, while showing them as champions of a cause to save the peoples of the planet—a modern avatar of the colonial era 'white man's burden'.[24]

2.2. BRIDGING THE NORTH-SOUTH DIVIDE

The economic power of the Global North countries and the fact that larger developed countries like the US are some of the biggest emitters of greenhouse gases ensures that they have a virtual veto in climate change negotiations.[25] Any agreement on climate

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22 Anil Agarwal and Sunita Narain, *Global Warming in an Unequal World: A Case of Environmental Colonialism* (Centre for Science and Environment, 1991), https://doi.org/10.1093/oso/9780199498734.003.0005.

23 ibid.

24 Robert H. Nelson, "Environmental Colonialism: 'Saving' Africa from Africans," (2003) 8(1) The Independent Review 65–86.

25 Daniel Bodansky, "The History of the Global Climate Change Regime," in *Global Climate Policy: Actors, Concepts, and Enduring Challenges*, ed. Urs Luterbacher and Detlef F. Sprinz, 1st

change action without their cooperation is doomed to fail, or at least achieve little success, as amply demonstrated by the fate of the Kyoto Protocol.[26]

At the same time, the relative number and the population of the Global South require them to be taken on board as well. Despite the heterogeneity and differences among the developing states of the Global South (emerging powers like the BRICS, the island states, the least developed countries, etc.), these countries have often negotiated as a bloc to ensure fairer outcomes.[27]

Deadlocks have resulted due to the unwillingness of developed countries like the United State to commit to any binding obligations till 'meaningful action' is taken by developing countries as well, who refuse to accept 'new commitments under any guise'.[28] This has resulted in blame games, with developed countries accusing the developing countries of preventing ambitious climate actions, while

ed. (MIT Press, 2001), 23–40; Hugh Ward, Frank Grundig, and Ethan R. Zorick, "Marching at the Pace of the Slowest: A Model of International Climate-Change Negotiations," (2001) 49 (3) Political Studies 438–61, https://doi.org/10.1111/1467-9248.00320.

26 David G. Victor, "The Collapse of the Kyoto Protocol and the Struggle to Slow Global Warming," in *The Collapse of the Kyoto Protocol and the Struggle to Slow Global Warming* (Princeton University Press, 2011), https://doi.org/10.1515/9781400824069; Robert Falkner, "American Hegemony and the Global Environment," (2005) 7 (4) International Studies Review 585–99, https://doi.org/10.1111/j.1468-2486.2005.00534.x.

27 Sumudu Atapattu and Carmen G. Gonzalez, "The North–South Divide in International Environmental Law: Framing the Issues," in *International Environmental Law and the Global South*, ed. Carmen G. Gonzalez et al. (Cambridge: Cambridge University Press, 2015), 1–20, https://doi.org/10.1017/CBO9781107295414.002; Atapattu, "Climate Change, International Environmental Law Principles, and the North-South Divide."

28 Lavanya Rajamani, "The Principle of Common but Differentiated Responsibility and the Balance of Commitments under the Climate Regime," (2000) 9 Review of European, Comparative & International Environmental Law 120.

developing countries continue to blame developed countries' for their insistence on attempting to impose unfair obligations.[29]

At the inception of climate change negotiations, it was hoped that these differences could be gradually resolved. In the initial 'agenda-setting era' of climate change negotiations, as Bodansky calls it, it was mostly the developed countries which were interested in dealing with climate change, and most of the scientific research on climate change were from these countries.[30] Most of the initial climate conferences were held in developed countries with most participants being interested scientists, academics, and officials from developed countries.

While Third World countries did participate in the intergovernmental conferences, there was an insistence upon principles such as 'differentiation' which would safeguard their interests. For instance, the Hague Declaration on the Environment noted that "*the international community and especially the industrialised nations have special obligations to assist developing countries which will be very negatively affected by changes in the atmosphere although the responsibility of many of them for the process may only be marginal today.*"[31] As Rajamani notes, the principle of differentiation, in the form of common but differentiated responsibility (CBDR), was introduced to introduce a

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29 T Jayaraman, Tejal Kanitkar, and Mario D'Souza, "Deconstructing the Climate Blame Game," (2010) 45(1) Economic and Political Weekly 13–15.

30 Bodansky, "The History of the Global Climate Change Regime."

31 "Hague Declaration on the Environment," *International Legal Materials* 28, no. 5 (1989): 1308–10. The conference was initiated by France, the Netherlands and Norway and the declaration was signed by 24 states: Australia, Brazil, Canada, Cote d'Ivoire, Egypt, France, Federal Republic of Germany, Hungary, India, Indonesia, Italy, Japan, Jordan, Kenya, Malta, Norway, New Zealand, the Netherlands, Senegal, Spain, Sweden, Tunisia, Venezuela, and Zimbabwe.

'balance of commitments' between the Global North and the Global South.[32] It was hoped that the application of differentiation would meaningfully integrate developing countries within the climate regime, while achieving necessary cooperation from developed countries to meet the climate action goals effectively. Climate Finance, provided by the Global North countries to the Global South, was seen as a key component of this differentiation.

However, more than three decades of climate change negotiations have only shown that these differences between the Global North and the Global South have not been meaningfully resolved.[33] Rather, it has been papered over, through deliberately ambiguous formulations which could potentially be interpreted by states differently, continuously deferring actual agreement.[34]

2.3. CLIMATE FINANCE AND UNFCCC

As noted earlier, the need for ensuring availability of financing for building the capacity of developing countries to adapt to climate change and transition to low carbon-footprint economies was felt since the inception of climate negotiations. The Ministerial Declaration at the Second World Climate Conference (1990) in the run to negotiating UNFCCC noted that "*[a]dditional financial resources will have to be channelled to developing countries for those activities which*

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32 Rajamani, "The Principle of Common but Differentiated Responsibility and the Balance of Commitments under the Climate Regime."

33 Daniel Bodansky, Jutta Brunnée, and Lavanya Rajamani, *International Climate Change Law* (Oxford, New York: Oxford University Press, 2017).

34 Daniel Bodansky and Lavanya Rajamani, "The Issues That Never Die," (2018) 12 (3) Carbon & Climate Law Review 184–90.

contribute both to limiting greenhouse gas emissions and/ or adapting to any adverse effects of climate change, and promoting economic development."[35]

Initially, climate finance was seen as an extension of the official development assistance being provided by some developed countries to Third World countries. However, the purpose of development assistance was different from climate finance, which was aimed to help developing countries mitigate and adapt to the effects of climate change. Counting development assistance as climate finance was therefore seen as 'double counting' and the need for 'new and additional' specifically for climate action was recognised.[36]

The UNFCCC, which introduced differentiated obligations between developed countries and developing countries (included in Annex I and II), provides that "*the developed country Parties and other developed Parties included in Annex II shall take all practicable steps to promote, facilitate and finance, as appropriate, the transfer of or access to environmentally sound technologies and knowhow to other Parties, particularly developing country Parties, to enable them to implement the provisions of the Convention*".[37] It also sought to create a financial mechanism to ensure "provision of financial resources on a grant or a concessional basis", and was required to have a balanced and equitable representation of parties

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35 World Meteorological Organization (WMO) et al., *Second World Climate Conference : Conference Statement* (Geneva: WMO, 1990), paragraph 2.8.

36 Katharina Michaelowa and Chandreyee Namhata, "Climate Finance as Development Aid," in *Handbook of International Climate Finance* (Edward Elgar Publishing, 2022), 62–82, https://www.elgaronline.com/edcollchap/book/9781784715656/book-part-9781784715656-9.xml.

37 United Nations Framework Convention on Climate Change, May 9, 1992 (entered into force March 21, 1994) 1771 U.N.T.S. 107 [hereinafter 'UNFCCC'], Article 4.5.

and a transparent system of governance.[38] The Global Environment Facility ('GEF') was entrusted with the operation of the financial mechanism in the interim till specific rules were made by the first conference of parties.

In essence, the UNFCCC did little more than recognise the need for climate finance, and put in place a financial mechanism framework without actually defining such 'climate finance', requiring any binding obligations on individual developing states, or creating a detailed institutional procedure regarding climate finance. Decisions on it were postponed, to be subjected to further negotiations at the various Conference of Parties ('COPs'). In the first COP, held at Bonn, Germany in 1995, the parties were only able to agree to formalise the role of GEF in operating the financial mechanism.[39] No progress was made on negotiating any further targets or commitments for climate finance.

In the meantime, the Kyoto Protocol had established international carbon markets through the 'flexibility mechanisms' of Joint Implementation, Clean Development Mechanism (CDM), and International Emissions Trading.[40] These were seen as an important way of incentivising climate finance flows towards developing countries through market-based methods. Joint Implementation allowed for North-North cooperation, allowing an Annex I party to

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38 UNFCCC, Article 11.

39 "Summary Report 28 March – 7 April 1995," IISD Earth Negotiations Bulletin, accessed August 12, 2023, http://enb.iisd.org/events/unfccc-cop-1/summary-report-28-march-7-april-1995.

40 Kyoto Protocol to the United Nations Framework Convention on Climate Change, Dec. 10, 1997, 2303 U.N.T.S. 162, Articles 6 (Joint Implementation), 12 (Clean Development Mechanism) and 17 (emissions trading).

acquire "emission reduction units" resulting from certain mitigation projects located in another Annex I state.[41] CDM allowed developed countries to obtain 'carbon offset credits' from their funded projects in developing countries (non-Annex I countries) if the emission reductions from such project show "real, measurable and long-term benefits related to the mitigation of climate change" which was "additional to any that would occur in the absence of the certified project activity".[42] In essence, the Kyoto Protocol system introduced binding emission reduction targets for developed countries, fulfilment of which could be partially 'outsourced' to developing countries (which do not have emission reduction obligations) by funding and implementing projects which mitigate climate change in those countries. It is also important to note that while the Kyoto Protocol introduced binding emission cuts for developed countries, it kept climate financing through the aforesaid mechanisms entirely voluntary. It sought to nudge developed countries through the market rather than legally requiring the provisioning of climate finance. It further failed to raise climate finance in any concerted, systematic, or measurable manner.

The introduction of voluntary market-based mechanisms for climate finance was seen by many scholars as a detraction from the developed countries' responsibility and a backdoor for carbon colonialism.[43] Julia Dehm, for instance, highlights the criticism that

41 Kyoto Protocol, Article 6.

42 Kyoto Protocol, Article 12.

43 Heidi Bachram, "Climate Fraud and Carbon Colonialism: The New Trade in Greenhouse Gases," (2004) 15 (4) Capitalism Nature Socialism 5–20, https://doi.org/10.1080/1045575042000287299; Julia Dehm, "Carbon Colonialism or

these market mechanisms could further marginalise those who are already most vulnerable to the adverse effects of climate change.[44] There have been fears that such CDM projects (like afforestation or renewable energy projects) could in practice mean land grabbing and 'green grabbing' at the expense of indigenous people and accelerate the destruction of local ecosystems, and increase poverty.[45]

Subsequent COP decisions continued to incrementally make rules to improve the reporting and transparency regarding climate finance. For instance, the parties in the COP 4 (1998) decided to review the financial mechanism every four years.[46] COP 7 at Marrakech (2001) created a separate Special Climate Change Fund (SCCF) and Least Developed Countries Fund (LDCF) to finance project adaptation, technology transfer and capacity building, and to assist least developed countries prepare and implement their national adaptation programmes of action, respectively.[47] It also created an Adaptation Fund under the Kyoto Protocol to "finance concrete adaptation projects and programmes in developing country Parties".[48]

Climate Justice: Interrogating the International Climate Regime from a TWAIL Perspective," (2016) 33 (3) Windsor Yearbook of Access to Justice 129–61, https://doi.org/10.22329/wyaj.v33i3.4893.

44 ibid.

45 See for e.g. Julia Dehm, "Indigenous Peoples and REDD+ Safeguards: Rights as Resistance or as Disciplinary Inclusion in the Green Economy," (2016) 7(2) Journal of Human Rights and the Environment 170–217; Marie Blévin, "The Clean Development Mechanism and the Poverty Issue," (2011) 41(3) Environmental Law 777–803.

46 UNFCCC, "Report of the Conference of the Parties on Its Fourth Session, Held at Buenos Aires from 2 to 14 November 1998. Part One: Proceedings.," FCCC/CP/1998/16.

47 See Decision 7/CP. 7: Funding under the Convention, Report of the Conference of the Parties on its seventh session, held at Marrakesh from 29 October to 10 November 2001. Addendum. Part two: Action taken by the Conference of the Parties. Volume I, FCCC/CP/2001/13/Add.1.

48 Decision 10/CP. 7: Funding under the Kyoto Protocol, Report of the Conference of the Parties on its seventh session, held at Marrakesh from 29 October to 10 November 2001. Addendum. Part two: Action taken by the Conference of the Parties. Volume I,

2.3.1. THE COPENHAGEN TURN IN CLIMATE FINANCE

COP15 at Copenhagen (2009) was a watershed as for the first time, developed countries pledged a specific (non-binding) numerical target of raising a minimum of US$ 100 billion annually as climate finance for developing countries by 2020, through the 'Copenhagen Accord'.[49] However, it is interesting to note that the Copenhagen Accord (adopted by 29 countries) was seen as a face-saving measure. This is because for the first time, the COP (which takes decisions as per consensus between all parties) could not come to any agreement, and merely "took note" of the Accord, rather than approving it.[50] While it was billed as the conference to 'seal the deal' and provide definitive clarity on the status of climate change regime after 2012 (when the emission reduction targets under the Kyoto Protocol were due to expire), it failed to achieve those goals,[51] and only exposed the continuing fault lines that divided the Global North and the Global South. Compared to the negotiations prior to the UNFCCC and Kyoto Protocol, developed countries seemed determined to reverse the Kyoto Protocol position of binding emission cuts on them, and the Annex-based differentiation model of the UNFCCC.[52]

FCCC/CP/2001/13/Add.1.

49 Report of the Conference of the Parties on its fifteenth session, held in Copenhagen from 7 to 19 December 2009. Addendum. Part Two: Action taken by the Conference of the Parties at its fifteenth session. FCCC/CP/2009/11/Add.1.

50 See generally: Daniel Bodansky, "The Copenhagen Climate Change Conference - A Post-Mortem," *American Journal of International Law* 104 (February 12, 2010), https://doi.org/10.5305/amerjintelaw.104.2.0230; Ian M. McGregor, "Disenfranchisement of Countries and Civil Society at COP-15 in Copenhagen," (2011) 11(1) *Global Environmental Politics* 1–7, https://doi.org/10.1162/GLEP_a_00039; Peter Christoff, "Cold Climate in Copenhagen: China and the United States at COP15," (2010) 19 (4) Environmental Politics 637–56, https://doi.org/10.1080/09644016.2010.489718.

51 Bodansky, "The Copenhagen Climate Change Conference - A Post-Mortem."

52 "Copenhagen According to USA," accessed August 21, 2023,

Developing countries saw this as a major dilution of the principle of common but differentiated responsibilities (CBDR) and a reversal of the hard-earned progress achieved under UNFCCC and Kyoto Protocol.[53] The Copenhagen Accord was presented as a *fait accompli* to the developing countries, most of whom had no role in drafting it, and were told to accept it or else they would not receive the promised financing.[54] Some developing countries walked out of the conference, dissatisfied with the procedural irregularities in negotiations, and the perceived high-handedness of the Chair in not taking the developing countries into confidence. The 'outcome' in the form of the Copenhagen Accord was therefore incomplete, and despite the promises made concerning climate finance, there were no methods to implement those promises.[55]

The 'Copenhagen turn' in Climate governance moved away from the previous model of 'redistributive multilateralism', as noted by McGee and Steffek, and instead towards a model of voluntary pledges, achieved through weakening the previously agreed UNFCCC model of differentiation.[56] Despite the general dissatisfaction with the Copenhagen COP, it has had a lasting impact. The dilution done to principles of differentiation and CBDR has

https://www.downtoearth.org.in/coverage/copenhagen-according-to-usa-696.

53 See for a commentary on the changes in the principle of differentiation after Copenhagen: Lavanya Rajamani, "The Changing Fortunes of Differential Treatment in the Evolution of International Environmental Law," *International Affairs* 88, no. 3 (May 1, 2012): 605–23, https://doi.org/10.1111/j.1468-2346.2012.01091.x.

54 "Copenhagen According to USA."

55 Lavanya Rajamani, "Copenhagen Accord: Neither Fish nor Fowl," *CPR* (blog), https://cprindia.org/journalarticles/copenhagen-accord-neither-fish-nor-fowl/ accessed August 22, 2023.

56 Jeffrey McGee and Jens Steffek, "The Copenhagen Turn in Global Climate Governance and the Contentious History of Differentiation in International Law," (2016) 28 (1) Journal of Environmental Law 37–63.

proven enduring, leading to an approach of 'self-differentiation' in the Paris Agreement'.[57] This led to essentially re-setting the climate change framework in the run-up to the Paris agreement negotiations.[58]

In a way, the developing countries were presented with a choice between sticking to the previous model of binding emission targets on developed countries (through the application of CBDR) or accepting genuine offers (rather what were said to be 'genuine offers') of climate finance from the developed countries. Developing countries, most of whom were disproportionately adversely impacted by climate change, and needed immense funding to even be able to adapt to climate change (let alone mitigate),[59] had little real choice but to accept the latter.

Implications of this Copenhagen turn on Climate Finance have also been immense. Developments in COPs following Copenhagen initially showed some promise, for instance, the establishment of the Green Climate Fund at COP 16 (Cancun,

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57 See: Lavanya Rajamani, "Ambition and Differentiation in The 2015 Paris Agreement: Interpretative Possibilities And Underlying Politics," (2016) 65 (2) International & Comparative Law Quarterly 493–514, https://doi.org/10.1017/S0020589316000130; Christina Voigt and Felipe Ferreira, "Differentiation in the Paris Agreement," (2016) 6 (1–2) Climate Law 58–74, https://doi.org/10.1163/18786561-00601004.

58 For a discussion on evolution of climate change negotiations, see generally: Daniel Bodansky, Jutta Brunnée, and Lavanya Rajamani, "Evolution of the United Nations Climate Regime," in *International Climate Change Law*, 1st ed. (Oxford University Press, 2017), 96–116.

59 Regarding the gross shortfall of adaptation finance and the urgent need of the developing countries, see: U. N. Environment, "Adaptation Gap Report 2021," UNEP - UN Environment Programme, October 31, 2021, http://www.unep.org/resources/adaptation-gap-report-2021; "Climate Finance and the Urgency for Adaptation in the Developing World," Global Environment Facility, May 12, 2021, https://www.thegef.org/newsroom/blog/climate-finance-and-urgency-adaptation-developing-world.

2010).[60] However, as developments later showed, these promises did not materialise into reality.[61]

2.3.2. Developments in Climate Finance after the Paris Agreement

The Paris Agreement included several references to climate finance.[62] The preamble referred to the special need of least developed countries for 'funding and transfer of technology'.[63] For instance, the relevant portion of Article 9 of the Agreement,[64] stipulates:

> 1. *Developed country Parties shall provide financial resources to assist developing country Parties with respect to both mitigation and adaptation in continuation of their existing obligations under the Convention.*
>
> 2. *Other Parties are encouraged to provide or continue to provide such support voluntarily.*
>
> 3. *As part of a global effort, developed country Parties should continue to take the lead in mobilising climate finance from a wide variety of sources, instruments and channels, noting the significant role of public funds, through a variety of actions,*

60 Report of the Conference of the Parties on its sixteenth session, held in Cancun from 29 November to 10 December 2010, Part Two: Action taken by the Conference of the Parties at its sixteenth session, Decisions adopted by the Conference of the Parties, FCCC/CP/2010/7/Add.1.

61 Jocelyn Timperley, "The Broken $100-Billion Promise of Climate Finance — and How to Fix It," (2021) 598 (7881) Nature 400–402, https://doi.org/10.1038/d41586-021-02846-3.

62 Paris Agreement, opened for signature 22 April 2016, 46 ILM 993 (2017) (entered into force 4 November 2016) [hereinafter 'Paris Agreement'].

63 Preamble, Paris Agreement.

64 Article 9, Paris Agreement.

> *including supporting country-driven strategies, and taking into account the needs and priorities of developing country Parties. Such mobilisation of climate finance should represent a progression beyond previous efforts.*

A review of climate finance efforts was also included in the global stocktake.[65] Article 11 also required capacity building of developing countries to *inter alia* facilitate access to climate finance.[66]

However, a deeper analysis of the Paris Agreement reveals that these promises of climate finance do not necessarily include binding obligations. Only Article 9(1) herein creates a hard obligation on conduct on part of the developed states.[67] Even then, the reference to "*in continuation of existing obligations under the Convention*" makes this obligation ambiguous and diluted since under the UNFCCC, there is no binding obligation on each country to provide a specific amount of climate finance; it is a general obligation, moderated by qualifiers like "as appropriate".[68] The words such as "*Parties are encouraged*" in the second paragraph and "*Parties should continue*…" in the third paragraph, are essentially 'soft-obligations', which merely recommend or encourage a particular action without having a binding force.[69] As noted by Rossati and Zahar, these

65 Article 9(6), Paris Agreement.
66 Article 11, Paris Agreement.
67 Lavanya Rajamani, "The 2015 Paris Agreement: Interplay Between Hard, Soft and Non-Obligations," (2016) 28(2) Journal of Environmental Law 337–58, https://doi.org/10.1093/jel/eqw015.
68 Article 11, UNFCCC.
69 Rajamani, "The 2015 Paris Agreement: Interplay Between Hard, Soft and Non-Obligations."

provisions are in the nature of political statements signalling intent, rather than cognisable legal provisions.[70]

The COPs conducted after the Paris Agreement came into force have continued to build upon the existing framework of climate finance. COP26 at Glasgow (2021) for instance, reaffirmed the pledge of developed countries providing $100 billion annually and included specific financial pledges to the Adaptation Fund and the Least Developed Countries Fund.[71] It also agreed to earmark a share of proceeds from market-based mechanisms under the Paris Agreement, specifically to help climate adaptation in developing countries that are particularly vulnerable to the adverse effects.

COP 27 (Sharm El Sheikh, 2022), was hailed as a breakthrough, as Parties emphasised the need for separate funding for "Loss and Damage", separate from adaptation finance, for countries hit particularly hard by climate disasters and agreed to create a separate Loss and Damage Fund.[72] However, there is little clarity on how this fund will be financed or who will be eligible to benefit from it. This has led developing countries to remain cautious, warning against the expansion of the donor base to include developing countries, or fearing that the pledges for loss and damage

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70 David Rossati and Alexander Zahar, "Governing International Climate Finance and Investment: The Role of Law," SSRN Scholarly Paper (Rochester, NY, March 3, 2022), https://papers.ssrn.com/abstract=4049282.

71 Report of the Conference of the Parties on its twenty- sixth session, held in Glasgow from 31 October to 13 November 2021. Addendum Part two: Action taken by the Conference of the Parties at its twenty-sixth session, FCCC/CP/2021/12/Add.1.

72 "Summary Report 6–20 November 2022," IISD Earth Negotiations Bulletin, accessed August 22, 2023, http://enb.iisd.org/sharm-el-sheikh-climate-change-conference-cop27-summary.

will also remain unfulfilled, much like the $100 billion pledge of climate finance.[73]

3. INADEQUACIES OF THE PRESENT CLIMATE FINANCE FRAMEWORK

As the preceding section of the paper shows, despite three decades of negotiations, the current framework for climate finance is beset with problems.

First, there is no binding obligation on individual developed states to contribute to the various climate finance funds. Treaty-based international law (in terms of specific binding obligations on states) on climate finance is almost non-existent.[74] It makes any accountability for failure to provide climate finance (individually or at a collective level) unlikely.[75] The new model of "pledge-and-review" is not just arguably inconsistent with CBDR,[76] but also distracts from the effort to secure finance from developed countries, by also focusing on non-state actors and the expanded donor pool. The gross inadequacy of climate finance for mitigation and adaptation in developing countries is well known.[77] The promise of annual $100 billion climate finance funding has never been fully met. As noted in

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73 *Ibid.*

74 Rossati and Zahar, "Governing International Climate Finance and Investment"; Alexander Zahar, "Legal Obligations of States Relating to Climate Finance," in *Climate Change Finance and International Law* (Routledge, 2016).

75 *Ibid.*

76 Steven Vanderheiden, "Justice and Climate Finance: Differentiating Responsibility in the Green Climate Fund," (2015) 50(1) The International Spectator 31–45, https://doi.org/10.1080/03932729.2015.985523.

77 "Biennial Assessment and Overview of Climate Finance Flows | UNFCCC," accessed August 22, 2023, https://unfccc.int/topics/climate-finance/resources/biennial-assessment-and-overview-of-climate-finance-flows.

an OECD report on the aggregate trends in climate finance, US$ 83.3 billion was provided in 2020 (and even that was accused to be inflated by some developing countries).[78]

Second, while there seems to be a broad conception of what climate finance means, there is no agreed definition of climate finance in the international climate regime. This has led to problems of double counting, creative accounting, using recycled pledges and poor transparency.[79] There are also controversies on whether many of the climate funding are truly 'new and additional' instead of being reallocation of official development assistance, thereby making developing countries lose the aid they would otherwise receive for poverty alleviation education, health and other human development priorities.[80] These problems remain despite continuous improvements in the reporting and transparency frameworks through successive COPs. The lack of definitional clarity also allows for loans and debt instruments being passed-off as climate finance. As per the OECD figures, US$ 83.3 billion was provided in 2020, of which only 58% constituted public climate finance. Within the public climate finance, around 70% of it was in the form of loans (concessional and non-concessional).[81]

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78 Climate Change Finance Unit Department of Economic Affairs Ministry of Finance, Government of India, Climate Change Finance, Analysis of a Recent OECD Report: Some Credible Facts Needed, Steven Vanderheiden, "Justice and Climate Finance: Differentiating Responsibility in the Green Climate Fund," (2015) 50(1) The International Spectator 31–45, https://doi.org/10.1080/03932729.2015.985523. accessed August 22 2023.

79 Anis Chowdhury and Kwame Sundaram Jomo, "The Climate Finance Conundrum," (2022) 65 (1) Development 29–41, https://doi.org/10.1057/s41301-022-00329-0.

80 ibid.

81 OECD, *Aggregate Trends of Climate Finance Provided and Mobilised by Developed Countries in 2013-2020* (Paris: Organisation for Economic Co-operation and Development, 2022), https://www.oecd-ilibrary.org/finance-and-investment/aggregate-trends-of-climate-finance-

Thirdly, voluntariness of climate finance is coupled with lack of a single streamlined and transparent framework for climate finance. This has resulted in a maze of different funds, institutions and regulations that the developing countries wishing to obtain climate finance must navigate. For instance, Philippe Le Houérou notes that in the last thirty years at least 94 different green climate funds (not to be confused with GCF) have been created to finance climate-related projects in emerging and developing countries, of whom as many as 81 were active in 2022.[82] This makes it very difficult to have any common standards of evaluating the climate finance flows in a transparent manner or to ensure accountability of these funds on the basis of any principles of international climate and environment governance. Beyond the climate funds created under the climate treaties (like GCF, LDCF etc.) and supervised by the mechanism created under COPs, an increasingly large amount of money going into climate related projects is being provided from private sources, large pension funds and multilateral development banks.[83] Such climate funding, due to the lack of proper oversight has not always resulted in a better outcome for the most vulnerable peoples. There have been many documented instances of displacement of indigenous peoples, land-grabbing, resource extraction, etc. under the name of climate projects.[84] This exacerbates

provided-and-mobilised-by-developed-countries-in-2013-2020_d28f963c-en.

82 Philippe Le Houérou, "Climate Funds: Time to Clean Up" (Clermont-Ferrand: Fondation pour les études et recherches sur le développement international (FERDI), 2023), https://ferdi.fr/en/publications/climate-funds-time-to-clean-up.

83 OECD, *Aggregate Trends of Climate Finance Provided and Mobilised by Developed Countries in 2013-2020*.

84 See for e.g. Saturnino M. Borras et al., "Land Grabbing in Latin America and the

the fears of climate finance being just another expression of carbon colonialism which only serves the interests of global capital.[85]

4. SO CLOSE YET SO FAR: CONCLUDING REFLECTIONS

In the field of technology, it is an oft-repeated joke that cold fusion is eternally 20 years away,[86] indicating that despite incremental progress, a big breakthrough is needed to achieve the intended outcome. Similar seems to be the case with climate negotiations in general and climate finance in particular. It is one of the issues which is so dynamic that it is never settled and seems to be reopened every few years,[87] contributing to a state of 'forever negotiations'.[88]

While it may sound very pessimistic, there are no easy solutions which can cut the proverbial Gordian Knot of endless negotiations in climate finance. There seems to be no alternative to

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Caribbean," (2012) 39(3–4) The Journal of Peasant Studies 845–72, https://doi.org/10.1080/03066150.2012.679931; Arnim Scheidel and Courtney Work, "Forest Plantations and Climate Change Discourses: New Powers of 'Green' Grabbing in Cambodia," (2018) 77 Land Use Policy 9–18, https://doi.org/10.1016/j.landusepol.2018.04.057; Diana Ojeda, "Green Pretexts: Ecotourism, Neoliberal Conservation and Land Grabbing in Tayrona National Natural Park, Colombia," in *Green Grabbing: A New Appropriation of Nature* (Routledge, 2013); Esteve Corbera, Carol Hunsberger, and Chayan Vaddhanaphuti, "Climate Change Policies, Land Grabbing and Conflict: Perspectives from Southeast Asia," (2017) 38(3) Canadian Journal of Development Studies / Revue Canadienne d'études Du Développement 297–304, https://doi.org/10.1080/02255189.2017.1343413.

85 See generally: Bachram, "Climate Fraud and Carbon Colonialism"; Dehm, "Indigenous Peoples and REDD+ Safeguards"; Dehm, "CARBON COLONIALISM OR CLIMATE JUSTICE?"; Rebecca Navarro, "Climate Finance and Neo-Colonialism: Exposing Hidden Dynamics," in *The Political Economy of Climate Finance: Lessons from International Development*, ed. Corrine Cash and Larry A. Swatuk, International Political Economy Series (Cham: Springer International Publishing, 2022), 179–203, https://doi.org/10.1007/978-3-031-12619-2_8.

86 Michael Brooks, "Forever 20 Years Away: Will We Ever Have a Working Nuclear Fusion Reactor?," *New Statesman* (blog), June 9, 2021, https://www.newstatesman.com/politics/2014/11/forever-20-years-away-will-we-ever-have-working-nuclear-fusion-reactor.

87 Bodansky and Rajamani, "The Issues That Never Die."

88 Daniel Bodansky, "The Forever Negotiations," *EJIL: Talk!* (blog), December 19, 2022, https://www.ejiltalk.org/the-forever-negotiations/.

this negotiation process since it is a by-product of the political complexity of the climate change problem.[89] Attempts to force a settlement may result in a Copenhagen-like fiasco or even entirely fragment the climate regime.

However, relying on the current system of entirely voluntary pledges also seem rather disadvantageous from the perspective of developing countries. Therefore, while incremental negotiations are unavoidable, there need to be consensus of some basic principles of fairness to govern future negotiations. Parties should recognise certain principles of differentiation, transparency, urgency and good faith in their negotiations. This would at least close the door on renegotiating fundamental principles like CBDR and their dilution.

This is of course easier said than done. In fact, the frustration of many Third World countries, particularly the small island states, with these long negotiations, is reflected in the various advisory opinions being sought from international courts and tribunals. One may hope that some legal principles emerge from these adjudications, which can help end these forever negotiations.

Another avenue of these principles which can guide future climate finance is the plethora of climate litigation which has emerged after the famous *Urgenda Foundation* case[90] in the Netherlands, where the Dutch courts have held the Netherlands government accountable for failing to do its 'fair share' of contribution towards the Paris

89 ibid.

90 Urgenda Foundation v. State of the Netherlands, Supreme Court of the Netherlands, ECLI:NL:HR:2019:2007.

agreement goal of keeping the increase in global temperatures to within 2 degrees of pre-industrial levels. After the success of the petitioners in this case, similar litigations have skyrocketed in many jurisdictions, including in Germany, Italy, the Czech Republic, South Korea, Canada, etc. and regional human rights courts like the European Court of Human rights.[91] While these cases have mostly applied a 'fair share' approach to climate mitigation, the principles emerging from them could possibly be applied in the context of climate finance as well. These cases, along with the several pending advisory opinions, may, in the future, provide a legal basis for accountability towards delivering climate finance, beyond the current 'pledge-and-review' system.

Legal clarity may also provide wind in the sails of these negotiations and be a shot in the arm of the Third World countries, who are the biggest victim of delays in climate action. It can at least show a particular direction in which the negotiations can proceed, which can result in fairer outcomes for everyone, while potentially foreclosing certain proposals which would be contrary to international law.

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91 Helen Keller & Corina Heri, "The Future is Now: Climate Cases Before the ECtHR", (2022) 40 (1) Nordic Journal of Human Rights, 153-174, DOI: 10.1080/18918131.2022.2064074; For a discussion on the national fair share approach, see: Lavanya Rajamani, Louise Jeffery, Niklas Höhne, Frederic Hans, Alyssa Glass, Gaurav Ganti & Andreas Geiges, "National 'fair shares' in reducing greenhouse gas emissions within the principled framework of international environmental law", (2021) 21 (8) Climate Policy, 983-1004, DOI: 10.1080/14693062.2021.1970504; See also the climate change litigation tracker developed by the Sabin Centre for Climate Change Law of the Columbia Law School at: https://climate.law.columbia.edu/content/climate-change-litigation.

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