FIGHTING 20 CELSIUS: THE QUEST FOR CLIMATE JUSTICE

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Abstract

Climate change is the defining human development challenge for the 21st century and the greatest existential threat for humankind and non-human nature. The five assessment reports of the Intergovernmental Panel on Climate Change (IPCC) released so far have confirmed our worst fears that human activities are the dominant cause of observed global warming. The negotiating process for the climate change regime has proved to be one of the most contentious in the history of multilateral environmental agreements due to shifting boundaries between developed and certain cohorts of developing countries and the rapidly changing geopolitical reality that affects and is simultaneously shaped by climate change. The dynamics of climate change presents varied dilemmas of justice and the postures advocated by different states have drawn the contours of a wider equity debate between the developed and developing countries in the climate journey from Rio to Paris.

I Introduction

THE PLANET earth appears restive. Human activities motivated by an attitude of rampant consumerism and unsustainable patterns of production and consumption have never been as inhumane and callous towards environment as in the modern era of scientific and technological innovations.

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See Klaus Bosselmann, World at a tipping point Earth Governance 1-22 (2013) for an excellent exposition of democratic and ecological deficit caused by prevailing state-centered structure of international governance; see also, W. Steffen et al., Global Change and the Earth System: A Planet under Pressure (IGBP Secretariat, Stockholm 2004); Vandana Shiva, The Greening of the Global Reach in Wolfgang Sachs (ed.), Global Ecology: A New Arena of Political Conflict (Zed Books, London, 1993); World Wide Fund (WWF), Living Planet Report, 2010, available at: http://assets.wwf.org./ uk.downloads/wwf_lpr 2010_lr_1_pdf (last visited on Dec. 10, 2015); IUCN Red List, available at: http://www.iu:, cn.org/?14964/IUCN (last visited on Dec. 20, 2015) The IUCN Red List in the year 2014 includes 73, 686 assessed species of which 22,103 are threatened with extinction; David T. Suzuki, et.al., The Sacred Balance: Rediscovering Our Place in Nature (Allen and Unwin, Crown Nest, NSW, 1997) author notes that for the first time in 3.8 billion years that life has existed on earth, one species-humanity is altering the biological, physical and chemical features of the planet on a geological scale.

² See Human Impact Report, Climate Change The Anatomy of a Silent Crisis 19 (Global Humanitarian Forum, 2009); Terry Root *et al*, Fingerprints of a Global Warming on Wild Animals and Plants 57 *Nature* 421 (2005).

The foundations of global security are threatened.³ These trends are perilous, but not inevitable. The global concern was aptly echoed in the preamble recital of the 1992 United Nations Conference on Environment and Development:⁴

Humanity stands at a defining moment in history. We are confronted with a perpetuation of disparities between and within nations, a worsening of poverty, hunger, ill health and illiteracy, and the continuing deterioration of the ecosystems on which we depend for our well-being.

Humankind's greed attacks nature and the wounded nature backlashes on the human future. Climate change, the defining human development challenge for the 21st century represents the greatest existential threat for the present and future generations, as well as for non-human nature. Being profoundly different from other environmental problems, climate change represents an urgent and potentially irreversible threat to human societies and the planet. Since the causes of climate change transcend geographical boundaries and actions to combat climate change involve huge economic costs, the crafting of a global agreement has been painstakingly laborious and difficult. Besides, climate change raises many dilemmas for justice that play an imperative role as unifying principles facilitating collective action. As it is evident, the more climate change negotiations are informed by principles

David Suzuki, The Legacy 20 (Allen & Unwin, Cross Nest, NSW, 2010), the author narrates that it has taken 100,000 years to reach a billion and a mere 200 years to multiply that figure by 6.9; see also, R.E. Kim & K. Bosselmann, International Environmental Law in the Anthropocene: Towards a Purposive System of Multilateral Environmental Agreements 2(2) Transnational Environmental Law 285-309 (2013). The article discusses the concept of planetary boundaries and makes a case of earth-centered governance as the epitome of people taking responsibility for the lives of all beings; W. Steffen, Katherine Richardson, et al., Planetary Boundaries: Guiding Human Development on a Changing Planet (2015) Science, advance online: doi:10.1126/science.1259855(last visited on Dec. 22, 2015).

⁴ United Nations Conference on Environment and Development (UNCED), preamble, para 1.1, AGENDA-21, 1992.

⁵ See generally, World Disasters Report (2015), available at: http://www.ifrc.org (last visited on Dec.22, 2015); Klaus Bosselmann, supra note 1- the author notes that world production of GHGs is on the increase notwithstanding availability of renewable energy options, the motive behind such behavior resembles hysteria and paranoia.

⁶ United Nations Development Programme (UNDP), Fighting Climate Change: Human Solidarity in a Divided World, Human Development Report, 2007, available at: http://hdr.undp.org/en/reports/global/hdr2007-2008/(last visited on Nov 30, 2015)

of justice, the more numerous the adherents will be, and the more will be the possibility of a global climate solution, and hence a safe climate future.⁷ The issue of climate change has produced such a high degree of common discourse amongst the global communities that the narratives of justice are inextricably woven into such developments.⁸ The postures advocated by different states representing varied interests have brought justice narratives in the climate change landscape, thereby drawing the contours of a wider equity debate between the developing and developed states for an effective global solution to the problem of climate change. Climate change, *inter alia*, presents the largest (re)distributive dilemma of human history. What is each nations fair share of safe global emissions is a classic problem of distributive justice. An adequate theory of justice must explain in what ways climate change affects persons entitlements at a global level, (such as, their ability to enjoy their lives, access to food, water and the ability to pursue their conceptions of the good) and explore its intergenerational dimensions.⁹

Against this backdrop, the United Nations Framework Convention on Climate Change (UNFCCC),¹⁰ the Kyoto Protocol¹¹ and the related legal instruments constitute the legal architecture that has been established by the states to address this issue. The negotiating process for the climate change regime has proved to be one of the most contentious in the history of multilateral environmental agreements.¹² Most developing countries have been

⁷ See Brian Barry, Why Social Justice Matters (Cambridge, Polity, 2005); W. Nordhaus, A Question of Balance: Weighing the Options on Global Warming (Yale University Press, 2008); D. Miller, Global Justice and Climate Change: How Should Responsibilities be distributed Tanner Lectures, available at http://www.tannerlectures.utah.edu. Miller_08 (last visited on Dec. 30, 2015)

⁸ Paul Baer et al., (eds), The Right to Development in a Climate Constrained World (Heinrich Boll Foundation, Berlin, 2000).

⁹ E.B. Weiss, Responsibilities to Future Generations: International Law, Common Patrimony and Intergenerational Equity (Transnational Publications, New York, 1989).

¹⁰ United Nations Framework Convention on Climate Change, 9 May 1992, in force Mar. 21, 1994, *available at*: http://unfccc.int.(last visited on Jan 20, 2016).

¹¹ Kyoto Protocol to the United Nations Framework Convention on Climate Change, Kyoto (Japan), Dec. 11, 1997, in force Feb.16, 2005, *available at.* http://unfccc.int/kyoto_protocol/items/2830.php. (last visited on Jan 10, 2016).

¹² See, for example, G. Prins & S. Rayner, Time to Ditch Kyoto 449 Nature 973 75 (2007); Lavanaya Rajamani, The Making and Unmaking of the Copenhagen Accord 59 International and Comparative Law Quarterly 824 43 (2010) and The Cancun Climate Change Agreements: Reading the Text, Subtext and Tealeaves 60(2) International and Comparative Law Quarterly 499 519 (2011); C. Okereke et al., Conceptualising Climate Governance Beyond the International Regime 9(1) Global Environmental Politics 58 78 (2009).

unwilling to take on emission reduction commitments, arguing that it was mainly the developed states which had contributed to the increase in global warming as part of their economic growth.¹³ The states most threatened by the effects of global warming, such as least developed states and small island developing states, have argued for arduous commitments.¹⁴ However, several developed states were concerned about the impact of firm emission reduction commitments on their economies.¹⁵ One of the key principles of UNFCCC which is yet to be operationalized is the common but differentiated responsibility and respective capabilities (CBDR-RC). This paper aims to present the narrative of competing theories in quest of justice in a climate constrained world and provide a snapshot of the climate change discourse from Rio to Paris whereby CBDR-RC shines as a golden thread that runs through the climate change regime arguably guiding the process of apportionment.

II The science of climate change

Climate change is the greatest threat for the present and future generations as well as for the planet earth. This challenge has been portrayed variously as an inconvenient truth, ¹⁶ a tragedy in the making, ¹⁷ a common concern of humankind, ¹⁸ and thus, a civilizational challenging moral problem. ¹⁹ The Fifth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC-AR5), which is progressively stronger than the previous IPCC reports, ²⁰

¹³ K. A. Baumert, Participation of Developing Countries in the International Climate Change Regime: Lessons for the Future *George Washington International Law Review* 371-85 (2006).

¹⁴ See, for example, Proposal put forth by Alliance of Small Island States (AOSIS) for survival of Kyoto Protocol and a Copenhagen Accord to enhance the implementation of UNFCCC, *available at:* http://www.indiaenvironmental portal.org.in/files/aosis20proposal-dec09.pdf. (last visited on Jan. 10, 2016.).

¹⁵ See P. Dauvergne (ed.), Handbook of Global Environmental Politics (Edward Elgar, Cheltenham, 2nd edn. 2012); Paul G. Harris, Common but Differentiated Responsibility: The Kyoto Protocol and United States Policy (77) NYU Environmental Law Journal 27-48 (1997).

¹⁶ Al Gore, An Inconvenient Truth (Rodale Books, 2006).

¹⁷ Supra note 6.

¹⁸ See, United Nations General Assembly Resolution 43/53.

¹⁹ Donald Brown, Ethics and Climate, available at: http://blogs.law.winder.edu/climate/(last visited on Jan.31, 2016).

²⁰ IPCC gave its First Assessment Report in 1990, describing the likely threats of climate change, and subsequently produced its Second, Third, Fourth and Fifth Assessment

attributes climate change to anthropogenic activities.²¹ IPCC AR- 5 says that warming of the climate system is unequivocal and it is extremely likely that human activities are the dominant cause of observed warming since the 1950s. Many of the observed changes (warming of the atmosphere and ocean, sea level rise and melting ice) are unprecedented over decades to millennia. ²² To illustrate further, IPCC AR-5 shows an estimated warming of 0.85 degree celsius since 1880 with the fastest rate of warming in the Arctic; an increase in sea-level rise by 0.26-0.55 meters by 2100 under a low emissions scenario and 0.52-0.98 meters under the high emissions scenario; and further predicts that it is likely that Arctic Ocean will be ice-free during a part of the summer before 2050 under a high emission scenario. The continued high emissions would further lead to negative impacts for biodiversity, ecosystem services, and economic development and amplify risks for livelihoods and for food and human security thereby affecting the basic elements of life for people around the world access to water, food production, health, and the environment. Millions of people could suffer hunger, water shortages, severity of droughts, land degradation, desertification, intensity of floods, tropical cyclones, incidence of malaria and heat-related mortality, and decreased crop yield and food in security.²³

Reports in 1995, 2001, 2007 and 2013 respectively. All reports are consistently stronger in attributing climate change to anthropogenic activities and its disastrous impacts on the world's poor, marginalized and vulnerable; All IPCC Reports are, *available at*: http://visit www.ipcc.ch (last visited on Feb. 20, 2015).

- 21 See IPCC AR5 Synthesis Report, available at: http://www.ipcc.ch/pdf/assessment-report/ar5/syr/SYR_AR5_LONGERREPORT.pdf.(last visited on Jan. 20, 2015).
- 22 *Ibid.* extremely likely is greater than 95 percent; In AR-4, the causation was very likely that is, greater than 90 percent; in AR-3 there was 66 percent certainty. When dealing with the uncertainty of occurrence, outcomes or results the IPCC uses the following scale of likelihood: virtually certain >99%; extremely likely >95%; very likely >90%; likely >66%; more likely than not > 50%; about as likely as not 33% to 66%; unlikely <33%; very unlikely <10%; extremely unlikely <5%; exceptionally unlikely <1%. When dealing with the uncertainty of whether a result is correct the IPCC uses the following scale of confidence: very high confidence at least 9 out of 10; high confidence about 8 out of 10; medium confidence about 5 out of 10; low confidence about 2 out of 10; and very low confidence less than 1 out of 10 see, IPCC, Guidance Note on Uncertainty, 2010, *available at*: http://www.ipcc.ch. (last visited on Jan 10, 2015).
- 23 *Ibid.* A recent World Bank Report based on climate science also predicts that the world is on course to warm as much as 4 degree celsius by 2100, prompting extreme heat waves, severe drought and major floods as sea level rises. All regions would suffer, but the tropics and sub-tropics are amongst the most vulnerable hitting the planet's poorest people. The report warns that the planet could reach 4 degree

In 2014, UNEP's Emissions Gap Report, the total global Kyoto green house gases (GHG) emissions amounted to about 52.7 GTCO₂²⁴ and global carbon-dioxide (CO₂) emissions from fossil-fuel and industry were estimated at 35.5 GTCO₂.25 The IPCC AR5 concluded that to limit global warming to below 2° celsius, the remaining cumulative CO₂ emissions (the so-called, carbon budget) are in the order of 1000 GTCO2. This remaining budget can be utilized in different ways, but given the most recent assessment of current trends, net global carbon emissions will eventually need to be reduced to zero between 2060 and 2075. Another study in line with IPCC-AR5 states that actual global carbon budget depends on the probability that the given quantum of cumulative emissions from the year 1870 would not cross the guardrail of 2° celsius. For a probability ranging from 67 to 50 percent of not exceeding 2° celsius guardrail, the global carbon budget ranges between 992 GTCO2 to 1212 GTCO₂ which is the physical limit on the emission for the world as a whole.²⁶ More recently, the 2015 UNEP's Emissions Gap Report calculated the possible pathway for the emission level in 2030 in scenarios that have a less than 66 percent chance of keeping temperature increase to below 20 celsius by the end of the century at 42 GTCO₂e.²⁷

Atmosphere as a global common

The sheer planetary scale and ambit of atmosphere makes it a public good prone to overexploitation and under-regulation. Way back in 1968, Garrett Hardin in his classical work, The Tragedy of the Commons ²⁸ dealt

- celsius as early as 2060 if governments don't meet their promises to fighting climate change. See, World Bank Report, Turn down the Heat: Why a 4 C Warmer World Must Be Avoided (International Bank for Reconstruction and Development, Washington DC, 2012)
- 24 Range: 47.9-57.7; see United Nations Environment Programme (UNEP), The Emission Gap Report, 2014, available at: http://www.unep.org/publications/ebooks/emissionsgapreport (last visited on Jan. 25, 2015); 1 Gigatonne is equivalent to 10° tonnes.
- 25 Range: 32.5-38.5, Ibid.
- 26 D.J. Frame, Adrian H. Macey et al., Cumulative Emissions and Climate Policy 7 Nature Geoscience 692-93 (2014); see also, K.T. Jayaraman, T D souza, et al., Carbon Budgets for Climate Change Mitigation A GAMS-based Emissions Model 104(9) Current Science 1200-06 (2013).
- 27 Range: 31-44; The similar level for a 1.5° C pathway is 39 GTCO₂e. See United Nations Environment Programme (UNEP), The Emission Gap Report, 2015, available at: http://www.unep.org/publications/ebooks/emissionsgapreport (last visited on Dec. 30, 2015); see also, Marco Grasso, Sharing the Emission Budget Political Studies 1-14 (2011).
- 28 G. Hardin, The Tragedy of the Commons 162 Science 1243-48 (1968); see also, A. Leopold, A Sand County Almanac (Oxford University Press, 1949).

with the general problem of utilizing resources that are public and common property. He argued that if no plan for the utilisation of such resources is accepted by all involved, the common will not be optimally utilized and will give lower return than investment in private property. The lack of care that the common receives *vis--vis* private property and the problem of free-riding are the primary reasons for the tragedy of commons. Expanding the definition of the commons, he explains:²⁹

In a reverse way, the tragedy of the commons reappears in problems of pollution. Here it is not a question of taking something out of the commons, but of putting something in sewage, or chemical, radioactive, and heat wastes into water; noxious and dangerous fumes into the air. The rational man finds that his share of the cost of the wastes he discharges into the commons is less than the cost of purifying his wastes before releasing them. Since this is true for everyone, we are locked into a system of fouling our own nest, so long as we behave only as independent, rational, free enterprisers.

The Stern Report³⁰ that provided authoritative guidance on the likely impacts of climate change warned against proceeding under business-as-usual scenario and suggested an imperative shift towards a low-carbon economy as the benefits of stabilising the climate far outweigh the costs. The continued emissions of greenhouse gases are causing fundamental changes to earth s climate. Since long, the atmosphere has been regarded as having an infinite capacity for absorbing GHGs, therefore, the problem of getting restrictions or costs associated with the emissions did not surface until recently. Now, it is evident that the atmosphere indeed has limited GHGs absorption capacity. Since nature by itself does not set a guardrail for our emitting greenhouse gases, there has to be a maximum limit on emissions which determined normatively it cannot be taken as given.³¹ By setting a limit, a resource

²⁹ Hardin, id. at 1245.

³⁰ Stern Report on the Economics of Climate Change, available at: http://www.hmtreasury.gov.uk/independent_reviews/stern_review_ economics_ climate_change/st ernreview_index.cfm (last visited on Jan. 31, 2016); see also, F. Harvey, F. 2012. Lord Stern: Developing countries Must Make Deeper Emission cuts The Guardian, Dec. 3, 2015, available at: http://www.guardian.co.uk/environment/2012/dec/04/lordd-stern-developing-countries-deeper-emission-cuts. (last visited on Jan.27, 2016).

^{31.} Lukas H. Meyer & Dominic Roser, Distributive Justice and Climate Change: The Allocation of Emissions Rights 28 Analyse & Kritik 223-249 (2006).

that was available earlier in limitless extent has been turned into scarce one and now the issue is fair distribution of this constrained resource. Thus, there is a paramount need to arrive at a fair way of distribution of the right to emit greenhouse gases as well as the burden of combating climate change. Since the largest share of historical and current global emissions of greenhouse gases is from developed countries, the inherent inequity between the countries producing climate change and the countries vulnerable to the effects of climate change needs to be addressed.

Climate change violates human rights

Climate change is one of the greatest challenges of our generation with consequences that transform life on earth and adversely impact the livelihood of millions of people. It poses great risks and threats to environment, human health, and access to water, sanitation, food security and social and economic development. These consequences interfere with the effective enjoyment of human rights. Thus, thinking about climate change from a human rights perspective is not only a fundamental necessity in terms of guiding our international development policy framework, but also offers us an invaluable opportunity to reappraise the most pressing needs of a highly inequitable global society, with greatly differing social, environmental and economic levels of development. The interests harmed by climate change provide substantive basis for holding a state responsible for the impacts of its greenhouse gas emissions on the global environment and on the environment of other state.³²

The human rights framework reminds us that climate change is about suffering, and human misery that results directly from the damage mankind is doing to nature and help us build human rights criteria into our future planning and perspectives. The existing body of human rights norms and principles offers a solid foundation for responsible and effective thinking

^{32.} Rio Declaration, 1992, pri. 2 as well as preamble recital to the UNFCCC reiterates the principle of state responsibility thus: States have, the sovereign right to exploit their own resources pursuant to their own environmental and developmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction; see also, Advisory Opinion on the Legality of the Threat or Use of Nuclear Weapons, 241 *ICJ Reports* 29 (1996); R.S.J. Tol and R. Verheyen, State Responsibility and Compensation for Climate Change Damages- A Legal and Economic Assessment 32 *Energy Policy* 1109-30 (2004).

and action in this regard.³³Climate change compromises peoples abilities to enjoy capabilities and to function.³⁴ The IPCC AR5 warns that warming of the climate system will affect the basic elements of life for people around the world: access to water, food production, health, and the environment. Hundreds of millions of people could suffer hunger, water shortages and coastal flooding as the world warms. Considering that, 60 percent of the world's population lives within 40 miles of the coastline, such tragic events are projected to increase in number. As a result, the pattern of severe weather linked to climate change will have consequences for the whole international community because the demands for assistance from environmental refugees will increase in number.35 Human rights provide a framework within which to think through the risks of climate change and the policy structures and mechanisms required to provide effective responses to those that most need them. Human rights approach also gives us guidance about adaptation since adaptation policies should be conceived as those policies that enable people to live in a world characterised by climate change and still be able to enjoy their core human rights.36

The most far-reaching claim for environmental rights comes in the form of claims to a decent, healthy or viable environment — to a substantive environmental right which involves the promotion of a certain level of environmental quality. Principle 1 of the Stockholm Declaration and principle 1 of the Rio Declaration proclaims, *inter alia*, that All persons have a right to a secure, healthy and ecologically sound environment and to an environment adequate to meet the needs of the present generations without impairing the rights of future generations to meet equitably their needs. ³⁷ The Universal Declaration of Human Rights (UDHR) proclaims that everybody is entitled to a social and international order in which their rights and freedoms can be fully realised. ³⁸ Climate change disrupts that order. States have a responsibility

³³ S. McInerney, Climate Change and Human Rights: A Review of International Legal Dimensions (The World Bank, Washington, D.C., 2009); L. Macinnis, Climate change threatens human rights of millions , UN Reuters (Feb. 19, 2008).

³⁴ See E. Brandstedt, An Interview with Professor Simon Caney 1(1) De Ethica 71-84 (2014).

³⁵ See especially, the projections made by Synthesis Report of the IPCC Fifth Assessment Report, *available at* http://www.ipcc.ch. (last visited on Dec.31, 2015).

³⁶ Supra note 34.

³⁷ International Council on Human Rights Policy, Climate Change and Human Rights 2008, available at. http://www.ichrp.org (last visited Jan. 14, 2014); See also, Wolfgang Sachs, Climate Change and Human Rights in M. Mascia & L. Mariana (ed.) Ethics and Climate Change 43-51 (CLEUP SC, 2010).

³⁸ Universal Declaration of Human Rights (UDHR), art. 28.

under these human rights instruments to take action to remedy the direct and indirect threats to these rights posed by climate change.³⁹ For instance, the right to life is protected in the UDHR, the International Covenant on Civil and Political Rights, 1966 (ICCPR) and International Covenant on Economic, Social and Cultural Rights, 1966 (ICESCR). 40 The right to adequate food is a human right, inherent in all people, to have regular, stable and unhampered access, either directly or by means of financial purchases, to quantitatively and qualitatively adequate and sufficient food corresponding to the cultural traditions of people and which ensures a physical and mental, individual and collective fulfilling and dignified life free of fear.41 There is little doubt that climate change will detrimentally affect the right to food in a significant way. Climate change also poses significant risks to the human health through a wide range of diseases - vector-borne, water-borne and respiratory. 42 Thus, human rights supply not only legal imperatives, but also a set of globally accepted ethical values around which common action can be negotiated and motivated.⁴³ Human rights approach to climate change also entails duties of compensation to those whose rights have been violated.44

³⁹ Human Development Report - UNDP , 2007, available at: http://www.undp.org. (last visited on Jan. 31, 2015).

⁴⁰ Supra note 38, art. 3: Everyone has the right to life, liberty and security of person; International Covenant on Civil and Political Rights, 1966 (ICCPR), art. 6(1): Every human being has the inherent right to life. This right shall be protected by law. No one shall be arbitrarily deprived of his life; Convention on the Rights of the Child, 1989 (CRC), art. 6: Right to life of children by requiring the State to take positive measures to reduce infant mortality and to increase life expectancy; International Covenant on Economic, Social and Cultural Rights, 1966, art. 11(1): The right of everyone to an adequate standard of living for himself and his family, including adequate food, clothing and housing, and to the continuous improvement of living conditions; art. 12: The right of everyone to the enjoyment of the highest attainable standard of physical and mental health; See also, Human Rights and Equal Opportunity Commission, available at: :http://www.humanrights.gov.au (last visited on Jan. 27, 2016).

⁴¹ J. Ziegler, The Right to Food UN Doc E/CN.4/2001/53, available at: http://daccessdds.un.org/doc/UNDOC/GEN/G01/110/35/PDF/G0111035.pdf? (last visited on Jan. 17, 2015).

⁴² Ibid.

⁴³ Oxfam Briefing Paper, Climate Wrongs and Human Rights, available at: http://www.oxfam.org/en/policy/bp117-climate-wrongs-human-rights-0809(last visited on Feb. 22, 2016); see also, W. Sachs and T. Santarius (eds.), Fair Future: Resource Conflicts, Security and Global Justice (Zed Books, London, 2007).

⁴⁴ See United Nations High Commission for Human Rights (UNHCR), The Effects of Climate Change on the Full Enjoyment of Human Rights April 30, 2015, available at: http://www.unhcr.org (last visited on Dec.31, 2015).

III The quest for climate justice

Climate change, inter alia, is a problem of global (in) justice as it casts an asymmetrical impact on the worlds poor, marginalized and vulnerable and places a disproportionate burden on the developing countries. 45 Thus, its remedy must be guided by relevant principles of justice if it is to address the problem appropriately and wield power legitimately.46 Climate change deliberations have become an important forum for discussions on distributive justice so that considerations of fairness are incorporated into efforts to protect global climate and to prevent socio-economic policies that contribute to its destruction. Therefore, quest for climate justice is part of an unfolding process towards greater degree of unity amongst nations as they endeavour to build a sustainable, just and peaceful society. The basic ethical principles for guiding each country and the world towards a climate that is tolerable and at the same time fair for everybody involved can be answered only by taking into account traditional policy and ethical issues.⁴⁷ On what basis should national climate change mitigation burden or resource shares be assigned, if justice in their assignment is the goal and operational constraint?

Justice is a vital concept in the context of climate change that presents the largest (re)distributive dilemma of human history. There has been a traditional assumption amongst political theorists that ideals of distributive justice should operate within countries that require the redistribution of wealth from the

⁴⁵ Simon Caney, Climate Change, Human Rights, and Moral Thresholds in Gardner, et al., Climate Ethics 163-177 (Oxford, 2010); see also, Arvind Jasrotia, Ethical Dimensions of Climate Change: A Perspective in M. Mascia and Lucia (ed.) Ethics and Climate Change: Scenarios for Justice and Sustainability 131-150 (CLEUP, 2010) and Justice in the Context of Climate Change: Search for a Morally Relevant Criterion XVIII-XIX Religion and Law Review 65-74(2009-10).

⁴⁶ Steve Vanderheiden, What Justice Theory and Climate Change Politics Learn from Each Other Symposium, *available at*: http://sciencepolicy.colaado.edu/admin/publication-files/2013.41pd (last visited on Dec.23, 2015).

⁴⁷ IPCC note that a variety of moral principles might be equally legitimate and justified claims. Therefore it is very difficult to achieve a worldwide consensus on just one justice principle. 670 (IPCC, 2001), available at: http://www.ipcc.ch. (last visited on Dec. 20, 2015)

⁴⁸ Stephen M. Gardiner, Ethics and Global Climate Change 114 Ethics 555 600 (2004).

⁴⁹ The eminent philosopher, Immanuel Kant uses the word distributive justice in the context of enforcement of laws, i.e., how justice is distributed. This is in sharp contrast to the modern definition of the term, i.e., how distributions are just or fair; see, Immanuel Kant, Fundamental Principles of Morals in T. K Abbott (ed.), Basic Writings of Kant (A.W. Wood, New York Modern Library, 1785).

wealthy within the state or nation to the less advantaged members of that society.⁵⁰ But with the advent of globalization and consequent stress upon fair and equitable sharing of global commons, serious reflection is given to the idea that the demands of distributive justice should be addressed primarily at the global level, at the level of mankind as a whole.⁵¹ In other words, principles of distributive justice should have a global scope.⁵²

The conventional theories of distributive justice comprise normative principles designed to guide the allocation of benefits and burdens of economic activity. Distributive principles may vary in numerous dimensions. They can vary in what is subject to distribution (income, wealth, opportunities, jobs, welfare, utility, etc.); in the nature of the subjects of distribution (natural persons, groups of persons, reference classes, etc.); and on what basis distribution should be made (equality, maximisation, individual characteristics, free transactions, etc.). One of the modern attempts to defend principles of distributive justice is found in John Rawls s A Theory of Justice: 55

⁵⁰ See Thomas Nagel, The Problem of Global Justice 33(2) Philosophy and Public Affairs 113-147 (2005); see also, Brian Barry, Humanity and Justice in Global Perspective in Democracy, Power and Justice 434-62 (Oxford, 1989).

⁵¹ P.V. Parijis, International Distributive Justice in R. E. Goodin, P. Pettit et al., A Companion to Contemporary Political Philosophy (2) 638-52 (Oxford Blackwell, 2007); see also, Thomas Pogge, Realizing Rawls (Ithaca NY: Cornell University Press, 1989) and Rawls and Global Justice 18(2) Canadian Journal of Philosophy 227 56 (1988).

⁵² Simon Caney, International Distributive Justice 49 Political Studies, 974-997 (2001); and Cosmopolitan Justice, Responsibility, and Global Climate Change 18 Leiden Journal of International Law 747-775 (2005).

⁵³ There are many dimensions to the problem of climate justice, but primarily two can be underpinned, namely, mitigation and adaptation. Mitigation refers to the anthropogenic intervention to reduce the anthropogenic forcing of the climate system, it includes strategies to reduce GHG sources and enhance GHG sinks, Adaptation refers to the adjustments in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities. Both mitigation and adaptation are costly strategies, and both raise questions of how to distribute the responsibilities for taking on the ensuing costs. IPCC-AR5 underpins mitigation and adaptation responses by common enabling factors such as effective institutions and governance, innovation and investments in environmentally sound technologies and infrastructure, sustainable livelihoods, and behavioural and lifestyle choices; see IPCC Fifth Assesment Report, Synthesis Report, available at: http://www.ipcc.ch/pdf/assessment-report/ar5/syr/SYR_AR5_LONG ERREPORT.pdf. (last visited on Dec. 20, 2015).

⁵⁴ S. Fleischacker, A Short History of Distributive Justice, (MA Harvard University Press, Cambridge, 2004).

⁵⁵ See John Rawls, A Theory of Justice 60 (Oxford University Press, 1971); see also, Political Liberalism (New York: Columbia University Press, 1993); Justice as Fairness (Cambridge MA: Harvard University Press, 2001).

First: each person has an equal right to a fully adequate scheme of equal basic liberties which is compatible with a similar scheme of liberties for all;

Second: social and economic inequalities are to satisfy two conditions. First, they must be attached to offices and positions open to all under conditions of fair equality of opportunity; and second, they must be to the greatest benefit of the least advantaged members of society.

Rawl s end-state theory of distributive justice holds that persons in the original position (behind a veil of ignorance, whereby they are ignorant of the abilities or characteristics they possess) would choose the aforementioned two principles for a just society. 56 Rawls s analysis of equity in the distribution of resources is done through an index which he terms primary goods, which are general-purpose means to achieve a variety of ends including such things as rights, liberties and opportunities, income and wealth, and the social bases of self-respect.⁵⁷ However, in Rawlsian sense, distributive justice, so conceived, has been inclined at the domestic level for instance, distribution between the inhabitants of a city, the citizens of a country, the members of a society. The major part of Rawls work is concerned primarily with domestic justice. The principles of justice that Rawls defends in the domestic sphere include the difference principle. However, in the context of climate change, the question of intergenerational (distributive) justice is discussed by some other scholars by stretching Rawls just savings principle and international (distributive) justice through principle (really a duty) of assistance.⁵⁸

Egalitarian approach

The most credible argument put forth by developing countries in the context of allocation of emission rights is based on the egalitarian approach which is premised on the notion that all human beings have equal entitlements to the atmosphere as global commons. This idea finds expression in a work

⁵⁶ Ibid.

⁵⁷ Id. at 60-65.

⁵⁸ John Rawls, *The Law of Peoples* 9 (Cambridge MA: Harvard University Press, 1999)-Rawls describes its application as merely an extension of a liberal conception of justice for domestic regime for a society of peoples, 9; ssee also, Lauren Hartzell, Climate Change and Global Justice: Extending Rawls Law of Peoples in *Environmental Values, available at:* http://www.cep.unt.edu/ISEE2/2006/Hartzell.pdf. (last visited on Dec. 27, 2015).

of seminal importance which states that Earth's ability to absorb greenhouse gases is a global common and this vital global common should be shared equally on a per capita basis. ⁵⁹ From the standpoint of equity, the egalitarian argument has an intrinsic appeal. The idea that no one owns the atmosphere and that there should be equality in its distribution has an appeal to commonsense. Developing countries strongly advocate this view as they have considerably less per capita emissions, both past and present, than most developed countries, and hence their claim of increasing their emissions as part of their economic growth. ⁶⁰ The poor countries which are most vulnerable are least responsible for the current concentrations of greenhouse gases in the atmosphere. ⁶¹

Egalitarian approach is good not only on redistributive grounds but also has plausible appeal to fairness. Any stabilisation target should be achieved on the basis of the principle that each human being has an equal right to the common atmospheric resource accounting and also keeping in mind the historical responsibility of developed countries in building the concentration of greenhouse gases in the atmosphere. Developing countries cannot be denied access to their equitable share of the global atmospheric resource and carbon space. The argument in this approach is connected with a general right to development. ⁶² For poorer countries, rapid development is not

⁵⁹ Anil Agarawal and Sunita Narain, Global Warming in an Unequal world: A Case of Environmental Colonialism (Centre for Science and Environment, New Delhi, 1991; see also, Simon Caney, Just Emissions 40(4), Philosophy and Public Affairs 255-300 (2012); Anil Agarwal, Sunita Narain, et al., The Global Commons and Environmental Justice Climate Change in Environmental Justice: International Discourses in Political Economy Energy and Environmental Policy 173-200 (CSE, New Delhi, 2002).

⁶⁰ Anil Agarwal, Making the Kyoto Protocol Work: Ecological and Economic Effectiveness, and Equity in the Climate Regime, *available at*: http://www.cseindia.org/html/eyou/climate/pdf/cse_stat.pdf. (last visited on Jun. 15, 2015).

⁶¹ For instance, India's emissions per capita were only 1.56 metric when the per capita emissions of many developed countries vary between 7 to 15 metric tonnes; see India's Intended Nationally Determined Contributions (INDCs), available at: http://www.unfccc.int; see also, N. Stern, Climate Change, Internationalism and India in the 21st Century (Policy Paper, July 2009), available at: http://www.lse.ac.uk.grantham (last visited on Dec, 2014); Sven Bode, Equal Emissions Per Capita over Time -A Proposal to Combine Responsibility and Equity of Rights for Post-2012 GHG Emission Entitlement Allocation 14(5) European Environment 300-16 (2004); and Robin Attfield, Environmental Ethics, 179-80 (2003) for the suggested principle that all persons have an equal per capita right to emit carbon-dioxide.

⁶² See, Declaration on the Right to Development, UNGA Res. 41/28 (1986).

only an economic and social imperative but also an essential requirement for building up a coping capacity against the adverse impacts of climate change. In this context, the imperative of development for adaptation is essential even from the point of right to life and basic issues of survival.

A variant of the equal per capita allocation is also affirmed in the proposal known as Contraction and Convergence for guiding the world to a sustainable emission level. 63 The first step in this scheme is to agree on a sustainable emission level, a level that the countries of the world are assumed to share in an equitable way. The contraction of the emission level is supposed to take place linearly from its present state in the country of concern and converge to the same equitable level for all countries. The scheme thus provides no principle of equality on the right to emission in the period until a sustainable emission level is reached. The countries with the higher per capita emissions will, however, lose their privileges gradually during the time of convergence. The equal emission right principle will seem more radical and give the developing countries possibilities to keep up their struggle for economic progress and force the industrialized countries to step up their efforts to reduce emissions.⁶⁴ Keeping in harmony with the per capita approach another argument has been advanced that subsistence emissions should be distributed so as to meet everyone's basic needs and then remaining luxury emissions should be distributed on an equal per capita basis.65 What is important from the point of view of morality is not that everyone should have the same but that each should have enough. 66 The objective is to allow those states below the moral threshold of emissions to carry out freely the carbon-dioxide generating activities necessary for their citizens to pursue a decent life by removing any limits on their emissions.⁶⁷

Status quo approach

Applying status quo distributive criterion, the developed nations subscribe to the approach that takes current emission levels as the status quo, based

⁶³ Global Commons Institute Contraction and Convergence, available at: http://www.gci.org.uk. (last visited on Dec. 10, 2015).

⁶⁴ Aubrey Meyer, Contraction and Convergence: The Global Solution to Climate Change (Foxhole, Devon: Green Books, 2000).

⁶⁵ Steve Vanderheiden, Atmospheric Justice: A Political Theory of Climate Change, (Oxford University Press, 2008); see also, Henry Shue, Substance Emissions and Luxury Emissions 15(1) Law and Policy, 39-59 (1993).

⁶⁶ H. Frankfurt, Equality as a Moral Ideal 98 Ethics 21-43 (1987).

⁶⁷ Marco Grasso, Sharing the Emissions Budget Political Studies 1-14 (2011).

on the notion of historic entitlements. Developed countries, especially major emitters, generally argue on the claim that they have acquired a right to their level of emissions through apportioning their share in the past, which they tend to see as justifiably recognizing the current distribution of emissions. This grandfathered approach stipulates that the fair share of emissions for any nation should be a function of its past share of emissions, *i.e.*, high past emissions can justify a right to high current and future emissions and no reduction can legitimately be demanded from historically acquired levels of emission. The status quo approach might seem to have practical appeal, but it is also somewhat arbitrary, as it ignores historical responsibility for past emissions and raises serious questions from the standpoint of equity.

The status quo rights were an important determining factor for distribution of emission quota amongst industrialized countries under Kyoto Protocol, ⁷⁰ whose core commitment was that annex I parties shall reduce their GHG emissions by at least five percent below 1990 levels in the first commitment period, 2008-2012. By requiring annex I countries to make cuts with respect to 1990 levels, it takes the latter as an appropriate benchmark for the distribution of emissions amongst industrialized countries. Obviously, this approach is insensitive to people s needs and has the tendency to lock members of developing countries into a perpetual state of poverty and underdevelopment. Any adequate principle governing the emission of GHG emissions should take into account other ethical concerns and fundamental human rights. And it is implausible to deny that eradicating vast poverty is an ethical concern of vital importance.⁷¹

Another argument put forth for support of the status quo approach is that high emissions are a necessary part of the life plans of people in the developed countries and a dramatic decrease in emissions would frustrate

⁶⁸ Paul Baer, Equity, Greenhouse Gas Emissions and Global Common Resources in S. H. Schneider, A. Rosen Ganz et al. (eds.) Climate Change Policy 393-400 (Washington, 2002); see also, Robert Nozick, Anarchy, State and Utopia (Basic Books: New York, 1974).

⁶⁹ Eric A. Posner & C.R. Sunstein, Justice and Climate Change, available at: http://ssrn.com/abstract=1008958 (last visited on Dec. 29, 2015); Simon Caney, Just Emissions 40(4) Philosophy and Public Affairs 255-300(2012).

⁷⁰ Kyoto Protocol to the United Nations Framework Convention on Climate Change, 11 Dec. 1997, in force 16, Feb. 2005, *available at:* http://unfccc.int/kyoto_protocol/items/2830.php. (last visited on Dec. 30, 2015).

⁷¹ Simon Caney, Justice and the Distribution of Greenhouse Gases Emissions 5(2) *Journal of Global Ethics* 125-146 (2009).

their legitimate expectations of being able to carry out their important projects in life since these projects are often inextricably embedded in the whole technological and economic surrounding which currently is fossil fuel based.⁷² Arguments have also been advanced for the continuance of status quo distributive criterion by applying the theory of just acquisition of property rights, propounded by John Locke.⁷³ However, these arguments have been rebutted and many scholars have shown that historically high emitters have left neither enough nor good for other countries, and consequently, there is a duty to emit less in the future rather than a right to emit more.⁷⁴

Thus, a right of the historically large emitters to the status quo cannot be justified on the ground of its moral appeal. Developing countries, including India and China, have generally argued strenuously against a status quo approach to climate change as this approach rewards high emitters and penalizes low emitters, thereby, institutionalizing inequality.⁷⁵ However, from the real-world politics, it was necessary to include grandfathering for developed nations as a necessary first step to bring existing power relations on board for an effective climate strategy.⁷⁶

From the aforesaid debates regarding justice narratives informing the discourse of climate change, it becomes amply clear that there is no one theory of justice that can comprehend the dynamics of climate change. And therefore, of late, there have been attempts to develop an approach of hybrid account to climate justice.⁷⁷

Historical responsibility approach

As the climate crisis is worsening, as strong political debate to find an equitable burden-sharing framework is gaining ground.⁷⁸ It is important to

⁷² L. H. Meyer, Cosmopolitan Communities in A. Coates (ed.), *International Justice*, 89-110 (2000).

⁷³ E. Peterson and F. Wesley, The Ethics of Burden-Sharing in the Global Greenhouse 11 Journal of Agricultural and Environmental Ethics 167 196 (1999).

⁷⁴ See Peter Singer, One World, (New Haven, Yale University Press, 2002).

⁷⁵ See, for instance, India s submissions to UNFCCC, available at: http://unfccc.int. (last visited on Dec. 22, 2015).

⁷⁶ Supra note 70.

⁷⁷ Supra note 34; See also, Eric A. Posner & D Weisbach, Climate Change Justice (Princeton University Press, 2010); Amratya Sen, Rights and Agency 11(1) Philosophy and Public Affairs 3-39 (1982); Martha Nussbaum & Amratya Sen, The Quality of Life (Oxford University Press, Oxford, 1992).

⁷⁸ See generally, Simon Caney, Environmental Degradation, Reparations and the Moral Significance of History 37(3) Journal of Social Philosophy 464-82 (2006); and, Climate

know how climate change stems from historical emissions and how harmful that is going in order to fix responsibility. The complexities of potential approaches to addressing climate change are significant given the global movement and cumulative impact of GHG emissions, as well as the significant economic implications of regulating activities into every aspect of human life. The United Nations Framework Convention on Climate Change (UNFCCC) recognition that the largest share of historical and current global emissions has originated in developed countries, that per capita emissions in developing countries are still relatively low and that share of global emissions originating in developing countries will grow to meet their social and development needs. 79 The UNFCCC affirms that the legitimate priority needs of developing countries for the achievement of sustained economic growth and the eradication of poverty, be given due consideration and in order for developing countries to progress towards sustainable social and economic development, their energy consumption will need to grow. 80 As the ultimate objective of the UNFCCC is to achieve in accordance with the relevant provisions of the convention stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system, 81 this underpins the importance of cumulative emissions and the historical responsibility that goes along with the contribution to the stock of greenhouse gases in the atmosphere, that is, an issue of distributive (and restorative) justice.

Thus, the appropriate distribution of GHGs should reflect the historical fact that industrialized countries have been emitting GHG, since the industrial revolution. Therefore, they should make radical cuts and developing countries may permissibly increase their GHG emissions.⁸² The total stock of greenhouse

Change and the Duties of the Advantaged 13(1) Critical Review of International Social and Political Philosophy 203-28 (2010); Stephen Gardiner, A Perfect Moral Storm (Oxford University Press, New York, 2011); and, Ethics and Global Climate Change 114 Ethics 145-54 (2004); Henry Shue, Subsistence Emissions and Luxury Emissions 15(1) Law and Policy 39-49 (1993); Steve Vanderheiden, Atmospheric Justice (Oxford University Press, 2008).

^{79.} See UNFCCC, Preamble, para 21.

^{80.} Ibid. See also, Lavanaya Rajamani, Differential Treatment in International Environmental Law (Oxford University Press, Oxford, 2006).

^{81.} UNFCCC, art. 2; see also, Daniel Bodansky, The United Nations Framework Convention on Climate Change: A Commentary 18 Yale Journal of International Law) 451-558 (1993).

^{82.} Henry Shue, Global Environment and International Inequality 75(3) *International Affairs* 536-37 (1999).

gases in the atmosphere has a strong effect on climate. This stock is determined by the accumulated emissions of GHGs in the atmosphere. It follows that cumulative emissions have a profound influence on the long term increase of global temperature. The developed countries, responsible for more than three times as many emissions between 1850 and 2002 than developing countries,83 have accumulated a historical emissions debt making them accountable for the amount of GHG emissions locked up in the atmosphere emanating from a country's historical emissions. It demands that the major emitters of the past also undertake the major emission reductions in future as the accumulation of greenhouse gases in the atmosphere is mostly their responsibility and the absorptive capacity of nature is equally allocated to all human beings, no matter when or where they live. 84 A recent study indicates that a simple per capita division of the total carbon budget available between 1870 and 2100 among all countries, results in a carbon budget entitlement of 210 GTCO₂ to annex-I countries, which have already emitted about 380 GTCO₂, that is, 169 GTCO₂ above their entitlements till 2012 itself.85

Thus, it is amply clear that the responsibility of addressing climate change problem should squarely lie on developed industrialized nations since they have caused the problem, *i.e.*, the polluter should pay. This principle has discerning appeal and has been affirmed in a number of international legal agreements. Since the industrialized countries, due to their past cumulative emissions, have caused climate change, they should bear the burdens of climate change due to their historical accountability. TPCC also cites polluter pays principle (PPP) as a possible principle of justice, amongst others. Both

⁸³ Kevin Baumert, Timothy Herzog, et al. (ed.), Navigating the Numbers: Greenhouse Gas Data and International Climate Policy (Washington: World Resources Institute, 2005).

⁸⁴ Eric. Neumayer, In Defence of Historical Accountability for Greenhouse Gas Emissions 33(2) Ecological Economics 185-92 (2000).

⁸⁵ Supra note 26. See also, Climate Wrongs and Human Rights Oxfam Briefing Paper, 117, available at: http://www.oxfam.org/en/policy/bp117-climate-wrongs-human-rights-0809 (last visited on Dec. 20, 2015).

⁸⁶ Patricia Birnie and Allen Boyle, *International Law and the Environment* 92-95 (Oxford University Press, 2002); and P. Sands, *Principles of International Environmental Law* 279-84 (Cambridge University Press, 2003).

⁸⁷ Simon Caney, Cosmopolitan Justice, Responsibility and Global Climate Change 18 Leiden Journal of International Law 747-775 (2005); and Survey Article: Cosmopolitanism and The Law of Peoples 10 The Journal of Political Philosophy 95-123 (2002).

^{88.} Supra note 20.

the UNFCCC and Kyoto Protocol provide an answer, albeit partially, to the issue of responsibility for damage.⁸⁹ The Brazilian proposal was most prominent which took account of historical responsibility.⁹⁰

The arguments pressed against the historical responsibility view advocate that people were excusably ignorant of the effects of their actions and it is therefore wrong to hold them morally responsible for those emissions. To make people liable for their emissions when they could not have known of the consequences of their actions is deeply unfair to them. However, this objection has little force against the GHG emission since mid 1980s or 1990s, when the IPCC issued its first assessment report, as a consequence of which they should have acted in a precautionary manner rather than choosing the business as usual path. Thus, the claim that developed nations should not be made liable to bear the burdens of climate change loses its force due to their incessant engagement in the harmful behaviour even after learning about the effects of their actions. Also their claim of excusable ignorance does not hold much ground, particularly because of the fact that they have gained much because of their energy intensive lifestyle. Bordering on the

⁸⁹ See, in particular, UNFCCC, art. 4.1(b) that lays substantive obligations by obliging all parties to formulate and implement national or regional programmes containing measures to mitigate climate change and measures to facilitate adequate adaptation to climate change. Further, annex II countries have accepted a general obligation to assist developing countries in meeting the costs of adaptation under certain circumstances and providing new and additional resources to meet the agreed full incremental costs of implementing measures as well as assisting developing county Parties that are particularly vulnerable to the adverse effects of climate change in meeting costs of adaptation to those adverse effects. (See, in particular, UNFCCC, art. 4.3 & 4.4).

⁹⁰ UNFCCC/AGBM/1997/Misc.1/Add.3, Paper no.1; see also, La Rovere, Lhaura Volente deMacedo, et.al., The Brazilian Proposal on Relative Responsibility for Global Warming in K. Baumert, Odile Blanchard, et al.(eds.), Building on the Kyoto Protocol: Options for Protection the Climate 157-73 (Washington, 2002).

⁹¹ Axel Gossiers, Historical Emissions and Free Riding 11(1) Ethical Perspectives 36-60 (2004); see also, Derek Parfit, Reasons and Persons (Oxford University Press, 1984)

Parfit suggests non-identity problem arguing that present rich people cannot be made accountable for historical injustices; G.A. Cohen, On the Currency of Egalitarian Justice 99(4) Ethics 906-44 (1989).

⁹² IPCC gave five consistent reports, each with increased certainty, holding anthropogenic activities as cause of increased global warming. All reports are available at: http://www.ipcc.ch. (last visited on Dec. 20, 2015); see also, Paul Baer, Adaptation: Who Pays Whom? in W. Neil, Jouni Paavola, et al., (eds), Fairness in Adaptation to Climate Change 13-27(2006); see also, UNFCCC, art 3.3 that provides for a precautionary approach to combat climate change.

same analogy, some scholars have argued that present generations should be duty-bound to pay for the high emissions caused by their previous generations since their current holdings have arisen on accounts of these past emissions and thus, they may be liable to contribute to the cost of combating climate change.⁹³ The historical responsibility has also been reflected in the principle of common but differentiated responsibilities and respective capabilities (CBDR-RC) that guides the future development of the climate change regime.⁹⁴

IV Changing contours of differentiation: A snapshot from Rio to Paris

Amartya Sen in *Idea of Justice*⁹⁵ talks about two fundamental concepts taken from Sanskrit literature on ethics and justice, niti and nyaya. Whereas, nyaya stands for a comprehensive concept of realized justice into whose line of vision the role of institutions, rules and organization have to be assessed, niti stands for organizational propriety and behavioural correctness. The concept of common but differentiated responsibility and respective capabilities (CBDR-RC) which is a pivotal principle of international environmental law assumes the role of a niti that has the capacity to arguably address and lead the world community towards the cherished ideal of nyaya, that is, justice in the context of climate change. CBDR-RC by promoting equity or fairness helps to bridge the distance between the formal equality of states under international law and deep inequalities in wealth, power and historical responsibility that divide them. CBDR-RC promotes equity wherein a regime is sought where differences among participants are accounted for in the relevant rules and obligations.⁹⁷ CBDR-RC is the golden thread that runs through the UNFCCC guiding the process of apportionment.98

The differential treatment in international environmental agreements can be divided into three broad categories, such as, provisions that differentiate

⁹³ Supra note 59; see also, Paul Baer, John Harte, et al. Equity and Greenhouse Gas Responsibility 289 Science 22-87 (2000).

⁹⁴ See, UNFCCC, art. 3.1; UNCED, Rio Declaration, pri. 7.

⁹⁵ Amartya Sen, The Idea of Justice 20 (Penguin Books, Allen Lane, 2009).

⁹⁶ H. Tuula, The Common But Differentiated Responsibilities Principle in Multilateral Environmental Agreements (Frederick, MD: Aspen Publishers, Inc., 2009).

⁹⁷ F. D. Hackett, Fairness and Freedom (New York, NY: Oxford University Press, 2012).

⁹⁸ P. Joffe, David Was Row, et al, Equity Lessons from Multilateral Regime for the New Climate Agreement, Working Paper. Washington, DC: World Resources Institute, available at: http://www.climatejusticedialogue.org (last visited on Dec. 29, 2015)

between developed and developing countries with respect to the central obligations; differentiation with respect to implementation such as phased-in compliance and delayed reporting schedules; and the granting of assistance in the form of capacity building, financial resources, and transfer of technology.⁹⁹

The UNFCCC set as its ultimate objective the stabilization of atmo-spheric concentration of greenhouse gases at a level that would prevent dangerous anthropogenic interference with the climate system. Such a level should be achieved within a time-frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner. ¹⁰⁰ In tune with UNFCCCs objective, the international community agreed to limit global temperature increase below 2° celsius above pre-industrial levels. ¹⁰¹ The recently concluded Paris Agreement also affirms the same goal. ¹⁰²

The principle of CBDR has its genesis in the 1992 United Nations Conference on Environment and Development (UNCED) as follows:¹⁰³

States shall co-operate in a spirit of global partnership to conserve, protect and restore the health and integrity of the Earth's ecosystem. In view of the different contributions to global environmental degradation, States have common but differentiated responsibilities. The developed countries acknowledge the responsibility that they bear in the international pursuit of sustainable development in view of the pressures their societies place on the global environment and of the technologies and financial resources they command.

⁹⁹ Lavanya Rajamani, Differential Treatment in International Environmental Law 129-75 (Oxford University Press, 2006).

¹⁰⁰ UNFCCC, art. 2 The UNFCCC establishes an evolving framework with more than 500 decisions by 21 Conferences of the Parties (COPs) and eleven meetings of the Kyoto Protocol parties.

¹⁰¹ See Copenhagen Accord, U.N. Doc. FCCC/CP/2009/L.7 (last visited on Dec. 18, 2015).

¹⁰² See Paris Agreement, art. 2, UN Doc. FCCC/CP/2015/L.9 (last visited on Dec. 25, 2015); The agreement also enjoins upon countries to pursue efforts to limit the temperature increase to 1.5° celsius above pre-industrial levels.

¹⁰³ UNCED, pri. 7.

This concept of CBDR has direct linkages with the contributions to global environmental degradation.¹⁰⁴ However, this concept of CBDR was stretched to CBDR & RC in the UNFCCC covering respective capabilities. The rephrasing of CBDR to CBDR-RC in the UNFCCC is as follows:¹⁰⁵

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

Evolving from the notion of the common heritage of mankind and having its genesis in fairness, CBDR-RC establishes unequivocally the common responsibility of states for the protection of global environment but builds on the acknowledgment by industrial countries that they bear the primary responsibility for creating the global environmental problem by taking into account the contributions of states to environmental degradation in determining their levels of responsibility under the regime. In doing so, it recognizes broad distinctions between states, whether on the basis of economic development or consumption levels. Further, the extent to which developing country parties will effectively implement their commitments under the convention will depend on the effective implementation by developed country Parties of their commitments under the convention related to financial resources and transfer of technology and will take fully into account that economic and social development and poverty eradication are the first and overriding priorities of the developing country Parties .¹⁰⁶

CBDR-RC is reflected in the structure of article 4 of the UNFCCC pertaining to commitments of developed countries and other parties included in annex I. However, the words, respective capabilities, as delineated in article 3.1, has been replaced by and their specific national and regional development priorities, objectives and circumstances. Further differentiation is evident through additional commitments to provide finance, 107 assistance with costs

¹⁰⁴ Harald Winkler & Lavanya Rajamani, CBDR&RC in a Regime Applicable to All Climate Policy, 2013, available at: http://dx.org/10.1080/14693062.2013.791184 (last visited on Dec. 22, 2014).

¹⁰⁵ UNFCCC, art. 3.1.

¹⁰⁶ Id., art. 4.7.

¹⁰⁷ Id., art. 4.3.

of adaptation¹⁰⁸ and technology. ¹⁰⁹ The UNFCCC delineates specific commitments on adaptation to be taken by various categories of countries in tune with CBDR-RC. 110 The differentiation between countries based on CBDR-RC involves two markers of differentiation: contribution to environmental degradation and capacity/resources to take response measures. 111 Although CBDR-RC is referred generally to mitigation, the UNFCCC envisages differentiation in relation to the provision of support as well and annex II countries are required to provide support to developing countries. Differentiation is less frequently applied to adaptation notwithstanding the fact that the most vulnerable countries and communities have contributed least to the problem. 112 Article 3.1 introduces CBDR & RC as a principle in the context of protecting the climate system, but not explicitly as a principle for adaptation. The UNFCCC includes adaptation in article 3.3, which enjoins all parties to take precautionary measures against the adverse effects of climate change taking into account different socio-economic contexts. However, article 4.4 uses mandatory language by requiring developed countries to assist the developing country parties that are particularly vulnerable to the adverse effects of climate change in meeting costs of adaptation.

The stark differentiation in CBDR-RC is further reflected in the Kyoto Protocol whereby developed countries agreed to an average emission reduction of 5 percent below 1990 levels by 2008-2012, the first commitment period. The Kyoto Protocol adopted a simple two-tiered system for assigning responsibility, largely in the form of mitigation targets. The protocol assigned targets to some countries and none for others. Specifically, it defined targets for both countries that were members of the OECD in 1990 and countries that were in transition to a market economy at the time. However, no targets

¹⁰⁸ Id., art. 4.4.

¹⁰⁹ Id., art. 4.5.

¹¹⁰ Id., art. 4.8 and 4.9.

¹¹¹ Supra note 104.

¹¹² Ibid.

¹¹³ Supra note 11; since US refused to join Kyoto Protocol and some countries set no targets beyond 2012, the Kyoto Protocol now covers less than 15 percent of global emissions; see also, Lavanya Rajamani, Differentiation in a 2015 Agreement, available at: http://www.c2es.org/publications/differentiation-in-a-2015-agreement(last visited on Dec. 28, 2015).



of the emerging agreement. INDCs represented each country's self-defined mitigation goals for the period beginning in 2020. Developing countries offered a range of approaches, including absolute economy-wide targets, reductions in emissions intensity (emissions per unit of GDP), reductions from projected business as usual emissions and reductions in per-capita emissions.

The recently concluded Paris Agreement¹²⁰ reflects a hybrid approach to achieve broad participation, blending bottom-up flexibility, with top-down rules, to promote accountability and ambition. The Paris Agreement strikes a delicate balance between collective ambition of global efforts to lower GHG emission, differentiation between developing and developed countries and mobilization of financial resources needed for support. It is a deal of collective intelligence. It provides a timetable for increasing the ambition of countries emission pledges as technology improves and experience accumulates. The agreement ends the strict differentiation between developed and developing countries that characterized earlier efforts, replacing it with a common framework that commits all countries to put forward their best efforts and to strengthen them in the years ahead. This includes, for the first time, requirements that all parties report regularly on their emissions and implementation efforts, and undergo international review. There is a fundamental shift away from the binary approach of the Kyoto Protocol towards a more nuanced forms of differentiation, reflected differently in different provisions. For example, there is no mention of the annex I (developed) and non-annex I (developing) categories which were originally there in the UNFCCC. Many provisions establish common commitments while allowing flexibility to accommodate different national capacities and circumstances, either through self-differentiation, as implicit in the concept of nationally determined contributions, or through more detailed operational rules still to be developed. The Paris Agreement articulates two long-term emission goals: first, a peaking of emissions as soon as possible, with a recognition that it will take longer for developing countries, and second, a

¹²⁰ Paris Agreement, UN Doc FCCC/CP/2015/L.9.; available at: http://www.unfccc.int (last visited on Dec. 28, 2015); see also, Essential Elements of a Paris Agreement, available at: http://www.c2es.org/publications/essential-elements-of-a-Paris-Agreement (last visited on Dec. 29, 2015); Shyam Saran, A long way from Rio, Indian Express Dec. 15, 2015; Lavanya Rajamani, Paris triumph Indian Express Dec. 16, 2015.

goal of net greenhouse gas neutrality in the second half of this century. The agreement also encourages countries to develop and communicate longterm low emission development strategies. The core mitigation commitments are common to all parties, but there is some differentiation in the expectaions set: developed countries should undertake absolute economy-wide reduction targets, while developing countries are encouraged to move toward economywide targets over time. Transparency is the watchword in the Paris Agreement for holding countries accountable. Further, the developed countries are committed to provide finance for mitigation and adaptation in developing countries in continuation of their existing obligations under the convention whereas other parties are encouraged to provide such support voluntarily. The COP decision extends the \$100 billion-a-year goal through 2025, and beyond that, a new collective quantified goal. Further, for small island countries and those vulnerable to climate impacts, there is a provision that extends Warsaw International Mechanism for Loss and Damage, 2013 which, however, does not involve or provide a basis for any liability or compensation.

V Conclusion

The UNFCCC is likely to remain the focal point for our response to climate change in the foreseeable future. The triumph of the multilateral process at Paris has arguably the potential to see the world community succeed in laying the foundations for a safe climate future. At Paris there has been candid endeavour for alert differentiation between parties in multilateral negotiating process and resulting agreements. The Paris Agreement ties together nationally determined contributions (NDCs) with international rules and procedure to ensure transparency and promote rising ambition. As of now, approximately 187 countries have showcased their NDCs, presenting various 2020-2030 target reduction dates. These contributions come in various forms ranging from absolute economy-wide targets to peaking years, carbon intensity reductions and so on. The guardrail of 2° celsius can be combated only if nations of the world, in particular, developed and developing countries equitably reduce their greenhouse gas emissions. In order to strengthen UNFCCC over time, it is imperative to build trust and confidence that others are acting and to ensure that burdens and benefits are fairly shared. In order to take the next step after Paris, parties need to encourage greater ambition for all by vetting the offers and commitments, and to showcase willingness to go further faster. In its quest for climate justice, CBDR-RC has reflected a lasting political consensus that the widest possible co-operation by all countries is needed to combat climate change with shared responsibility to act.

Common destiny beckons us to seek a new beginning. This requires a new sense of global interdependence and universal responsibility that flows naturally from the recognition of the oneness of humanity and is best sustained by a unifying vision of a peaceful, prosperous world society. Humanity must imaginatively develop and apply this grand vision of a sustainable way of life.