

E-ISSN: 2469-4339

Management and Economics Research Journal, Vol. 5, Iss. S3, Pgs. 10, 2019

Review

Climate Change and Right to Development

Mukherjee and Mustafa

Special Issue S3: "Global Warming and Climate Change: Part 2"

HATASO, USA

Climate Change and Right to Development

Vivek Mukherjee*, Faizan Mustafa
NALSAR University of Law, Hyderabad, India.

*Correspondence: vivek.mukherjee@outlook.com

Received: Oct 18, 2018; Accepted: Jan 6, 2019

Copyright: Mukherjee and Mustafa. This is an open-access article published under the terms of Creative Commons Attribution License (CC BY). This permits anyone to copy, distribute, transmit and adapt the work provided the original work and source is appropriately cited.

Citation: Mukherjee V, Mustafa F. 2019. Climate change and right to development. Management and Economics Research Journal, Vol. 5, Article ID 735041, 10 pages. <https://doi.org/10.18639/MERJ.2019.735041>

Abstract

The Right to Development is a relatively new right in human rights law. Although its roots may be traced to pre-world war era, Right to Development took concrete shape with the passing of the UN Declaration on the Right to Development in 1986. Some renowned academic institutions in India are making recent efforts to make the "Right to Development" a Fundamental Human Right. Climate change poses a direct threat to human rights of people, especially in tropically situated countries of the south (including India), which are coincidentally home to a large number of vulnerable/marginalized people who are considerably poor to concern themselves with issues such as climate change. Due to mounting pressure from least developed countries (LDCs) and small island developing countries (SIDSs), international community has lately shown greater interest in establishing a direct link between climate change and human rights. This interest may be a reaction to the recurrent failures in reaching a consensus in the climate change negotiations through mechanical Conference of Parties (COPs). Similar to a bottom-up approach that seems to have worked well for the Paris agreement, it was believed by experts that linking human rights to climate change would shake the conscience of the reluctant parties to act expeditiously. The importance of a human rights-based approach to climate change will be highlighted in the light of two recent developments in the climate change discourse: First, the recognition by scientists of several extreme disaster as climate change events directly violating the human rights of the vulnerable; second, the dilution of the differentiation created between developing and developed nations by the Common But Differentiated Responsibilities (CBDR) principle in the recent climate change agreements. This paper seeks to establish the efficacy of the human Right to Development (through tools such as Greenhouse Development Rights) in effectuating the third world approaches to the issue of climate change in the global south.

Keywords: Human right; Right to developments; Climate change; Paris agreement; North-South divide; Greenhouse Development Rights; Right-Based approach.

1. INTRODUCTION

"Poverty anywhere constitutes a danger to prosperity everywhere" (Key Document – ILO Constitution, May 10, 1944).

Generally, one evil leads to another; then, there follows a series of unwanted chain of events. Climate change leads to hunger, poverty, conflict, loss of livelihood, forced displacement, etc. Climate change is caused due to unprecedented increase in green-house gases (GHG) leading to global warming that further is a cause of mega disasters causing outlandish loss to life and property leading to violation of basic human rights such as right to life, food, shelter, livelihood, and health. The chain can only be broken by reducing human-induced GHG emissions, particularly carbon dioxide (CO₂).

Climate change is not just an environmental concern. It has broad economic implications as well. Historically, the developed nations have been the major CO₂ emitters, leading to anthropogenic climate change. The developed nations developed at the cost of the environment. Developing countries are demanding their rightful development space. Developing countries have expressed their discomfort toward the greater

liability imposed on them under the common but differentiated responsibility principle of United Nations Framework Convention on Climate Change (UNFCCC). The term “applicable to all” was intensely debated at Durban, because it signals a political expectation that the climate regime must contain greater “symmetry” in the commitments in contrast to “differentiation” (Winkler and Rajamani, 2014).

If freedom is to be ensured to the large majority of the poor population of the world who reside in the developing “global south,” economic development is a prerequisite. Economists such as Amartya Sen argue that economic development leads to better human rights conditions.¹ Human rights and economic development is so inextricably interrelated that the pursuit of one without the other would be incomplete and ineffective. Moreover, the study of the interrelationship between political and civil rights (usually associated with traditional western democracies) and socioeconomic rights make it clear that the realization of social and economic right is dependent not merely on socioeconomic development, but also on respect for political and civil liberties (Sen, 1999). Articles 55 and 56 of the UN Charter highlight the legal obligations accepted by state members to promote economic development, without which the citizens cannot realize their economic rights.

The integration of Right to Development argument in a climate stressed world has ethical as well as practical advantage. Ethically, it offers a vision similar to sustainable development goals (which has found broad consensus through the transformation of Millennium Development Goals (MDGs) to sustainable development goals) but with a much serious appeal to it, as it invokes a pressing obligation on the part of international community to ensure equity by allowing the developing nations to claim their equitable share of development. Practically, the Right to Development discourse will help the climate change project to work on something tangible, that is, rights involving individuals. It is expected that this will help the advocates of climate change action to gather more consensus. Unfortunately, gathering consensus on a wicked problem like climate change is an uphill task.

One of the biggest shortcomings of the problem of climate change has been its over-reliance on predictions of events that are yet to take place. Most of the climate change actions mandated in the climate change treaties are based on the principle of intergenerational equity, that is, directed toward protecting the interest of future generations. This takes our attention away from the urgency of the matter. Recent studies show that in the very youth of our millennium the violent face of climate change in the shape of extreme weather events are already occurring and thus the problem persists here and now (Stern, 2014). A meta-analysis of 59 studies that looked at climate change and extreme weather after the coming into force of Paris agreement concluded that climate change has aggravated extreme weather events. Moreover, 41 of the 59 studies demonstrated that climate change had made extreme weather events more intense and more long-lived. These included droughts in Syria to Storm Desmond, which battered the UK in 2015. “This is a real-world analysis of what is actually happening, rather than a projection of what might happen in the future,” says Richard Black, director of the Energy and Climate Intelligence Unit.²

In addition, co-ordination among states with varied vested interests is a complex task. Especially, co-ordination in any act that affects the developmental goals of nations is even more complex (Sandler, 1997). This makes climate change a wicked problem—a problem that is extremely difficult to solve (Gardiner, 2017).

All the above facts call for urgent action to deal with climate change. As the global north is historically responsible for climate change, it has the moral and legal obligation (under the principle of Common But Differentiated Responsibilities (CBDR) in UNFCCC) to take concrete steps to deal with the impact of climate change. However, the recent developments in the evolution of the principle of CBDR shows that the global north is unhappy with the intelligible differentia created between the developed and developing nations (Winkler and Rajamani, 2014). In fact, the Paris agreement signed by most of the nations in the world today does not make any clear distinction between the developed and developing nations (different from the clear distinctions made in Kyoto protocol). It is argued that this dilution of the differentiated responsibility between developed and developing nations is a violation of the Right to Development enjoyed by developing nations. However, the urgency of the problem demands that the international community does not shy away from its responsibility toward developing and underdeveloped nations. It is suggested that the time is ripe for the international community to formulate development models that ensure sustainable development without violating human rights of the vulnerable. An assessment of such a development model for climate change, that is, Greenhouse Development Rights (GDRs), is intended to be done in this paper.

¹ See generally Sen (1999).

² The report is available at: https://eciu.net/assets/Reports/ECIU_Climate_Attribution-report-Dec-2017.pdf.

PART I

HUMAN RIGHTS TO DEVELOPMENT AND CLIMATE CHANGE

2. A RIGHT-BASED APPROACH TO CLIMATE CHANGE

It is evident from introduction that a major course correction is required to synchronize development (in development and underdeveloped countries) and climate change action on the same track. It is also clear that the blunt impact of climate change disasters is directly faced by poor citizens of the south, leading to human rights violations. Consensus building that may have worked for international law making in other branches of International Law (such as maritime law and humanitarian law) has simply fallen apart in the area of dealing with climate change. This may be because of a range of factors including lack of customary laws in the field because it is a rather recent challenge faced by humanity or disproportionate GHG emissions and vulnerabilities/preparedness of nations to adapt to climate change. This brings us to the issue of finding logical alternatives to the status quo that deals with climate change action. One such alternative is a Right-Based Approach to Climate Change.

A Right-Based Approach (RBA) to climate change action has many advantages. First, it ensures enhanced stakeholder participation. It provides for special attention to integrating the views of the poor and marginalized. It attempts to strike a balance between the winners and losers in the climate change discourse (Sinden, forthcoming).

Second, implementing RBA has the potential to overcome policy paralysis at both national and international levels. RBA seeks to harmoniously address both individual and community rights (which are often in conflict with each other). Community rights are of utmost importance in most of the climate change adaptation action. Often climate change mitigation is prioritized over adaptation action that is of more immediate need to the underprivileged in the global south (Pielke *et al.*, 2007). Adaptation projects mainly seeks to enhance good governance in southern nations by reducing poverty and meeting the sustainable development goals of developing countries at the same time.³ This compromise leads to compromises at the level of human rights of the underprivileged. Of course, this is not to undermine the role played by mitigation action in dealing with climate change. Less expensive and cleaner energy technology that broadly falls under mitigation technology is a perfect example where mitigation has the potential to address Third World problems. Nevertheless, RBA seeks to address this issue by harmonizing mitigation and adaptation action with the rights of individuals and communities at its Center.

Third, RBA recognizes that development is more than freedom from poverty. This line of logic recognizes that the global south does not have the will to focus on rapid emission reduction; rather it prioritizes poverty alleviation over emission reduction. RBA seeks to establish a global burden-sharing regime.

Under the RBA, the right to fundamental human development is supported by two arguments:

First, there are political benefits of integrating human development in the larger rights discourse. In the greenhouse transition that we seek to achieve there is a high possibility of the global south seeking to protect the imperative of human development. The southern nations will prioritize human development over low-cost mitigation technologies. Thus, human development will be a nodal point as far as climate change negotiation from a southern perspective is concerned.

Second, the practical advantage of engaging with human development as an essential factor of negotiation of the global north with global south is that it ultimately pushes the southern nations toward prosperity, leading to "parity" instead of "differentiation" to which most northern nations oppose.

As both the political and practical arguments are deeply imbedded in ethical basis, RBA is essentially an appeal to morality. Its justification is however a practical one. Ultimately, in the present context where nations lack consensus on the issue of climate change, it is a necessity more than anything else.

³ Another adaptation-oriented example of the enhancement of good governance is in the area of land use and watershed management. Improvements in natural resource management can lower risks, reduce loss of human life, and thus facilitate adaptation to the heavy rains, floods, and severe storms that are associated with climate change, while simultaneously enabling populations to use their resources with minimal or no impact.

3. ESTIMATING THE COST OF CLIMATE CHANGE IN A DEVELOPING ECONOMY

The impact of climate change on development patterns of developing and underdeveloped nations will be many folds. Due to sudden increase in the frequency of droughts, floods, storms, and heat waves, caused by climate change, both individuals and governments will be heavily taxed, and expenditures will have to be diverted from poverty alleviation initiatives to damage control ad hoc measures to deal with disasters. According to a path-breaking study by Lord Stern in 2006, 2% increase in global temperature may cost 1% to the world GDP (Stern, 2008). As 80% of the world population resides in the developing world, if environmental cost of climate change is borne by everyone equally, 80% of the share will have to be borne by the third world.

It is not easy to calculate the exact cost of climate change; nevertheless, an indication may be drawn from the drastic increase in the number of people affected by natural disasters. The proportion of low-income countries affected as compared to high-income countries also has a story to tell. The situation is worse for least developed and developing nations according to 2010 World Bank Development Report. Africa will have to bear a cost of 4% and India 5% (World Bank, 2010). Moreover, 5% is almost the share of expenditure that goes into health in India and some points less than double the education expenditure.⁴ Going beyond economic loss, the lives lost due to climate change disasters is shocking. Countries such as Bangladesh are ill equipped to deal with frequent floods. Estimates by the Global Humanitarian Forum, a Swiss think-tank, in a study in *Comparative Quantification of Health Risks*, a scientific journal, put the number of additional deaths attributable to climate change every year at 150,000. The indirect harm, through its impact on water supplies, crop yields, and disease are much greater (The Economist, 2009). This should come as a warning bell to Indian government, as this clearly will lower the prospects of effective governance. Moreover, the issue is spread across rural as well as urban belts. Ten out of 15 largest cities (including Shanghai, Mumbai, and Cairo) of the developing world is situated in low-lying coastal areas vulnerable to increasing sea levels.

The issue of climate change overlaps with the third world issue of poverty that aggravates the problem further. Third world nations are continuously struggling with issues such as high infant mortality rates, deaths by preventable diseases, malnutrition, AIDS, starvation, and a range of other issues in a growing world of inequality.

4. HUMAN RIGHTS AND CLIMATE CHANGE

Marcos Orellana, a frequent commenter on the connection between development, human rights, and climate change, identifies three reasons why the link between human rights and climate change is important (Greiber, Janki, and Orellana, 2009):

- (a) The linkage encourages the states to use UN Human Rights Council (HRC) procedure to take account of human rights violations from climate-induced disasters. For example, in an annual report submitted to the HRC, the Special Rapporteur on the Right to Food has addressed the negative climate impacts on the Right to Food, referring to environmental degradation, desertification, and global climate change as contributing factors to poverty and noted the concomitant challenges for development programs (UN General Assembly, 2015).
- (b) The linkage can help states to achieve the goals set out under their international obligations. It can also establish a framework for international development aid that can be used by developed countries to help developing countries.
- (c) The link helps to identify climate threats to vulnerable groups such as tribal and indigenous people. This is in line with Principle 22 of the Rio Declaration that recognizes the role played by indigenous communities in protecting common property and development related to their traditional knowledge. Research on the impact of climate change on these vulnerable groups has been sparse. It can thus be reoriented by linking climate change with human rights. The precious knowledge of these communities may help to find innovative ways to mitigate and adapt to climate change, logically leading to realization of their human rights.

⁴ World Bank Data. Available at: <http://data.worldbank.org/indicator/SH.XPD.TOTL.ZS>.

The synthesis report published immediately after most nations signed and ratified the Paris agreement suggests that even if all parties perform their obligation set under their own pledges, a 2-degree goal seems unachievable. Nonachievement of the 2-degree goal set out in the Paris agreement will push between 100 and 400 million people into hunger, and between 1 and 2 billion more people may not have access to portable water, leading to mass violation of human rights (World Bank, 2010).

The Conference of Parties to UNFCCC has recognized the important role of human rights in climate change.⁵The detailed report released by Office of the High Commissioner for Human Rights (OHCHR) linking climate change and human right in 2009⁶ comprehensively explains the link as follows: “looking at climate change vulnerability and adaptive capacity in human rights terms highlights the importance of analyzing power relationships, addressing underlying causes of inequality and discrimination, and gives particular attention to marginalized and vulnerable members of society.” It concludes that “global warming will potentially have implications for the full range of human rights.” This includes the rights to adequate food, right to life, health, water, housing, and the right to self-determination. According to the report the people who will be affected the most are persons with disabilities, women, indigenous peoples, elderly, minorities, children, and farmers who are highly dependent on the physical environment.

5. RIGHT TO DEVELOPMENT WITHIN THE CLIMATE CHANGE DISCOURSE

The UN Declaration on the Right to Development, 1986 (RTD Declaration) defines development as follows:

Development is a comprehensive economic, social, cultural and political process, which aims at the constant improvement of the well-being of the entire population and of all individuals on the basis of their active, free and meaningful participation in development and in the fair distribution of benefits resulting therefrom (UN General Assembly, 1986).

Clearly, development has been defined in the RTD Declaration with a human right centric approach. With the human being at the center of development, the Right to Development discourse provides that the development process must respect all human rights and fundamental freedoms and contribute to the realization of rights for all.⁷ However, the understanding of development has not always been the same. Violence in the form of Human Rights violation was often seen as a corollary to development. In other words, development has always been viewed to include a painful transition, especially among Lewisian economists. This logic is extended further in economic liberalization, especially post 1991 when Indian economy liberalized under international pressure. This has been explained by eminent left economist Prabhat Patnaik: “The state in a ‘liberalised regime’ acts almost exclusively in the interests of globalised capital and the domestic corporate-financial oligarchy that gets integrated with it, which means inter alia a withdrawal of state support from traditional petty production, including peasant agriculture. This is what underlies the phenomenon of absolute impoverishment of the working people, notably in the form of growing nutritional deprivation...” (Patnaik, 2016). I argue that this is nothing less than structural violence against the peasants of the global south.

Human rights violation in the form of “structural violence” was theorized by Galtung in his celebrated article “A Structural Theory of Imperialism.” Although Galtung did not theorize structural violence from a purely human rights perspective in its modern sense, his theory was further expanded by some authors to extend the logic of structural violence to human rights violations (Ho, 2007). Structural violence theorists define violence as the avoidable disparity between the potential ability to fulfill basic needs and their actual fulfillment. This definition of violence has a queer closeness as a fall-out reverberation to development.

The root cause of this structural violence has been identified by scholars such as Amartya Sen and Pogge, as constraint on agency to such an extent that fundamental human needs cannot be attained by a

⁵ The link between Human Rights and Climate Change was first established in the COPs decision on the outcome of the work of the Ad Hoc Working Group on Long-term Cooperative Action under the Convention, established under the Bali Action Plan.

⁶ The report is available at: <https://www.ohchr.org/Documents/Issues/ClimateChange/COP21.pdf>.

⁷ UN General Assembly (1986), Preamble.

person (Ho, 2007). This constraint on agency may find parallels in the case of climate change action. Most of the efforts to deal with the violent face of climate change has gone into mitigation, where adaptation in, and capacity building of the least developed and developing nations have often been pushed back to triviality. Developing and underdeveloped countries need significant resources to strengthen its institutions and capacities.

The relationship between economy and environment needs to be relooked, where environment is seen as a resource of society and not just a source of input in the economic system. As Right to Development promotes respect for human rights of individuals, it provides essential guiding principles for sustainable development and is essential to the success of sustainable economy (OHCHR, 2013).

There are certain misunderstandings regarding the nature of Right to Development in the context of climate change discourse. Right to Development has often been equated with right to pollute. The Right to Development is not a right to pollute; it is instead a clarion call for better and breakthrough technologies that can reduce the side effects of industrialization. The Right to Development may be a key to unlock the puzzle of technology transfer in climate change negotiation. The core argument of the Right to Development is social justice and equal distribution of wealth is the need of the hour in the context of an unequal distribution of bargaining power in climate change negotiations. This may find reflection in the technology transfer aspect of Bali Action Plan, the Clean Development Mechanism under Kyoto protocol, and similar parallels in the Paris agreement. The principle of “common but differentiated responsibility,” which was of central importance in the Kyoto framework, has been diluted with the addition of expressions such as “respective capabilities” and “in the light of different national circumstances.” This may have unwanted impacts on the aspirations of developing and least developed nations. What this really means is that developed nations that are historically responsible for the pollution causing climate change may show the “national circumstances” card to waive the responsibility of helping the developing and least developed countries (LDCs) in realizing their Right to Development.

Thus, the dichotomy within the climate-development crisis is self-evident: The present state of the art technology and economic ideologies of states does not allow development without harming the environment. Development is a quintessential to ending poverty that cannot happen without expanding energy resources. On an international scale, this can be achieved only through the protection of human Right to Development. In conclusion, what is worth recognizing is that any climate regime that neglects the dichotomy mentioned earlier and misplaces the global south’s development aspirations will not succeed.

PART II

GREENHOUSE DEVELOPMENT RIGHTS

Greenhouse Development Rights provides for a framework of Climate Change action that is fairer and more equitable to Third World Nations (Baer, Athanasiou, and Kartha, 2010). It is based on a Right-Based Approach to climate change. GDR may be explained through the following points:

- (a) GDRs are essentially a framework based on precaution. It addresses the existing ambiguities in dealing with catastrophic climate change disasters.
- (b) GDRs have the right to human development for all at its center, with special focus on development in LDCs. It prioritizes adaptation over mitigation by releasing the southern nations of the burden to mitigate climate change.
- (c) On the contrary, GDRs method urges the northern countries to contribute resources for a society to collectively make a shift toward clean, low-carbon, efficient economies, and arrive at a safe emission trajectory. This will certainly be a costly affair for the northern nations; however, as the Stern Review has indicated, any further delay will spike the costs further. In such a situation, GDR ensures that obligation is shared equitably. As southern countries lack capacity, this task cannot be left to political persuasion. Thus, GDR pitches for historical responsibility and higher capacity of developed nations as well-defined legal categories.

- (d) The GDRs method would critically impose parallel obligations on developing nations. Considering the fact that there are enormous disproportions in wealth of nations, GDRs method computes obligation of states in a style that is sensitive to such differences. Furthermore, GDR obliges LDCs to first act toward the “no-regrets” mitigation possibilities in their immediate reach, and second to further human development through enhancing adaptation capacity.

The GDR method has been designed in a manner that makes it compatible with the pre-existing institutions of the climate regime. In particular, it could be executed as a worldwide cap-and-trade system wherein allocations are made on the grounds of “national no regrets trajectories.”

6. THE STRUCTURE OF THE GDRS SYSTEM

6.1. A Precautionary Global Emissions Trajectory

The starting point of the GDR method is based on a scientific precautionary trajectory. Currently, climate science mandates a 420 ppm peak and decline trajectory. This requires frequent revision. The objective of the existing system is to ensure that absolute global emissions peak earlier than usual. It is due to this reason that the proposals herein may seem impractical. The consequences of the GDRs method could be reduced through a more ambitious path. Politically acceptable proposals with significantly less emission targets are nothing less than dangerous.

6.2. The Global Mitigation Shortfall

The starting point of GDR computation is determining the mitigation deficit on a global scale. Mitigation deficit is the total volume of mitigation that is required to sufficiently decarbonize the global economy and to keep us within the budget of the precautionary global emissions, much beyond the mitigation that countries can be expected to achieve by means of no-regrets activities.

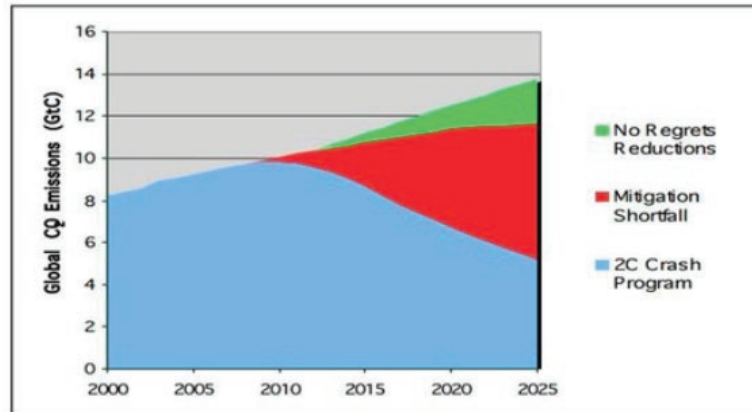
No-regrets activities are the ones that diminish emissions as compared to traditional mode of development, reaping benefits that are either financial or other. No-regrets activities are difficult to define; they change over time with technological and market shifts, they are susceptible to nonmarket barriers, and the financial value of their co-benefits are difficult to quantify. The underlying idea clearly becomes visible: the GDRs method makes a distinction of mitigation activities that bring about positive costs from those countries that should be encouraging climate change action as they suitably fit in a situation where constraints related to climate change are relatively absent.

Considering the above difference, it looks feasible to argue for internationally standardized and fair methods for the building of national no-regrets trajectories. This could further be accumulated in the form of a global no-regrets trajectory, as shown in Figure 1.

The global adaptation shortfall demands a bottom-up approach with individual attention devoted to each nation's needs. Similar to the global no-targets trajectory, this process of estimating the global adaptation shortfall needs to be transparent and shall be based on international standards. This will be more challenging than estimating the global mitigation shortfall. Fortunately, good practices may be adopted from the methods used to formulate the “polluters pay” principle. Clues can also be collected from the experience of formulating National Adaptation Plans of Action (Müller and Hepburn, 2006). The adaptation shortfall includes “urgent and immediate adaptation activities” cataloged in the National Adaptation Programmes of Action (NAPAs), besides relatively long-term physical infrastructure requirements such as sea walls and drinking water systems, or institutional infrastructure such as comprehensive disaster responses systems and insurance schemes to be made accessible to the poor. The most urgent objective that the global adaptation shortfall seeks to achieve is to develop a wide adaptive capacity in poor communities. No doubt, it will require considerable investments⁸ in resilience building in vulnerable communities.

⁸ Any attempt to categorically distinguish investments in “human development” from “adaptation activities” is likely to be fraught with difficulties. There are not only practical but also conceptual problems with trying to determine the “additionality” of adaptation activities, or with trying to quantify the “incremental costs” of adaptation over the “baseline costs” of development.

Figure 1. The global adaptation shortfall.



6.3. National Indicators of Responsibility and Capacity

The resonating idea in the GDR method is to make national obligations compatible with the capacity and responsibility of nations. "Capacity" is simply the resource requirement to deal with climate change: financial or otherwise within a nation. "Responsibility" from the "polluters pay" principle is the input contribution of a nation to the problem of climate change. The GDRs method takes these contentious quantities to produce a fair, transparent, and legally binding commitment for all nations. This includes complex negotiations on issues such as setting the predefined date of commencement (e.g., 1992, when the UNFCCC was agreed), an indicator of capacity. In these calculations, intranational income inequality shall also be accounted.

6.4. Obligations and Burden Sharing in the GDR Framework

The GDRs approach, as controversial as this step may be, proposes to discard the traditional categories such as Annex-I, Annex-II, and non-Annex countries that were institutionalized under the Kyoto protocol. Rather, a "development threshold" that reflects a level of socioeconomic development is proposed. This threshold would be measured by a "capacity indicator" that would include but not necessarily limited to per-capita income.⁹ Those countries whose capacity indicator exceeds the development threshold (let us call these "Annex North" countries) would collectively be obligated to pay for the low-carbon development needed to meet the global mitigation shortfall. The allocation of this burden within Annex North would, in turn, would be based on national responsibility and capacity indicators—countries with greater responsibility and capacity would be obligated to pay and to mitigate a correspondingly larger proportion of the global mitigation shortfall. Analytically, responsibility and capacity indicators would be combined into a composite "obligation indicator," and the global mitigation shortfall (expressed in tons of CO₂eq) would be allocated to Annex North countries in proportion to their obligation indicator.

This scheme could be implemented as a global cap-and-trade system, providing only that each country is given allowances in an amount corresponding to its no-regrets trajectory minus the portion of the global mitigation shortfall that it is obligated to reduce. Countries with emissions in excess of their allowances would be required to either mitigate them domestically or buy additional allowances on the global market, at a price that might indeed be quite high, reflecting as it does the stringency of the global adequacy trajectory.

Those countries whose capacity indicator falls below the development threshold ("Annex South") would not be required to contribute to meeting the global mitigation shortfall. Instead, they would be required, in proportion to their obligation indicator, to allocate resources directly to human development.

⁹ Economic indicators are of course not adequate indicators of development. Some people in the GDRs coalition are thus arguing for an indicative definition of the development threshold that is based entirely on the Human Development Index or other more directly qualitative indicators. The operationalization of such a threshold would, of course, require a negotiated definition of the development threshold.

Recall, in this regard, that responsibility and capacity indicators are calculated in a disaggregated manner that accounts for intranational disparities. Thus, a country like China, which is poor in aggregate but home to a wealthy (and responsible) subpopulation—would have a nonzero obligation. However, as long as China as a whole remained below the development threshold, it would not be obliged to perform mitigation activities; rather, it would have the liberty to perform activities intended to promote the human development of its own people.

Once an Annex South country reaches the development threshold and “graduates” into Annex North, it will, by definition, have enough capacity to start paying for the global mitigation shortfall, though its initial mitigation obligations would be small. Until that time, development is its proper priority, and it is obligated only to invest in human development. Finally, all countries are obligated, in proportion to their obligation indicator, to meet the adaptation-funding shortfall.

Many will see the GDRs approach as unrealistic. After all, it asks that nations, and in particular the nations of the North, make commitments that, as of now, are not committed to accept. In this, it is quite different from other proposed frameworks, which generally put forward incremental steps that build marginally on existing progress, and which downscale expectations to politically acceptable proposals. The GDR approach is rather informed by science and not politics. The reason behind rejecting incremental methods that are rather political in their approach is the urgency that climate change as a problem poses in the twenty first century.

As a first step, the GDRs framework codifies the Right to Development as a “development threshold” — a level of welfare below which people are not expected to share the costs of the climate transition. This threshold shall not be confused with “extreme poverty line” thresholds, which is typically defined to be so low (\$1 or \$2 a day) as to be more properly called a “destitution line.” Rather, it is set to be higher than the “global poverty line,” to reflect a level of welfare that is beyond basic needs but well short of the consumption patterns of the rich.

The level where a development threshold would best be set is clearly a matter for debate. Some argue that it should be at least modestly higher than a global poverty line, which is itself about \$16 per day per person (PPP adjusted). This figure derives from an empirical analysis of the income levels at which the classic plagues of poverty—malnutrition, high infant mortality, low educational attainment, high relative food expenditures—begin to disappear, or at least become exceptions to the rule. So, taking a figure 25% above this global poverty line, we do our “indicative” calculations relative to a development threshold of \$20 per person per day (\$7500 per person per year). This income also reflects the level at which the southern “middle class” begins to emerge.

People below this threshold are taken as having development as their fundamental right. People above the threshold, on the other hand, are taken as having realized their Right to Development and as bearing the responsibility to preserve that right for others. They must, as their incomes rise, gradually assume a greater responsibility by bearing the costs of curbing the emissions associated with their own consumption. Moreover, and critically, these obligations are taken to belong to all those above the development threshold, whether they reside in the North or in the South.¹⁰ This makes the GDR method more amenable to the global north.

7. CONCLUSION

It can be observed from the Paris reckoning that the climate crisis is principally a crisis concerning the management of global commons. Although the ultimate solution may lie in co-ordination through political negotiations, the urgency posed by climate change-induced disasters in the recent years calls for a depoliticization of the process by introducing scientific indicators to effectuate principles laid down in the UNFCCC. The recent dilution of CBDR by conceding to growing pressure from the developed nations needs to be addressed by introducing tools like Greenhouse Development Rights that is not just scientifically sound; it is also politically and practically acceptable.

¹⁰ *Supra* note 8.

References

- Baer P, Athanasiou T, Kartha S. 2010. Greenhouse development rights: a framework for climate protection that is “more fair” than equal per Capita Emissions Rights. In *Climate Ethics: Essential Readings*, Gardiner S, *et al.* (eds). Oxford University Press: Oxford.
- The Economist. 2009. A bad climate for development. September 17. Available at: <http://www.economist.com/node/14447171#footnote1>
- Gardiner SM. 2017. Climate ethics in a dark and dangerous time. *Ethics* 127: 430-465.
- Greiber T, Janki M, Orellana MA. 2009. *Conservation with Justice: A Rights-Based Approach* (No. 71). IUCN: Gland, Switzerland.
- Ho K. 2007. Structural violence as a human rights violation. *Essex Human Rights Review* 4(2): 1-17.
- Key Document – ILO Constitution. May 10, 1944. Available at: http://www.ilo.org/dyn/normlex/en/f?p=1000:62:0::NO:62:P62_LIST_ENTRIE_ID:2453907:NO#A
- Müller B, Hepburn C. 2006. *IATAL-an Outline Proposal for an International Air Travel Adaptation Levy*. Oxford Institute for Energy Studies: Oxford.
- OHCHR. 2013. *Realizing the Right to Development*. OHCHR, United Nations Publication: New York and Geneva; 321.
- Patnaik P. 2016. Economic liberalisation and the working poor. *Economic & Political Weekly* LI(29): 47-50.
- Pielke R, Prins G, Rayner S, Sarewitz D. 2007. Climate change 2007: lifting the taboo on adaptation. *Nature* 445(7128): 597-598.
- Sandler T. 1997. *Global Challenges: An Approach to Environmental, Political, and Economic Problems*. Cambridge University Press: Cambridge.
- Sen A. 1999. *Development as Freedom*. Oxford University Press: Oxford.
- Sinden A. 2008. Climate change and human rights. *Journal of Land, Resources & Environmental Law*, Temple University Legal Studies Research Paper No. 2008-49. Available at SSRN: <https://ssrn.com/abstract=984266> or <http://dx.doi.org/10.2139/ssrn.984266>
- Stern N. 2008. The economics of climate change. *The American Economic Review* 98(2): 1-37.
- Stern N. 2014. Climate change is here now and it could lead to global conflict. *The Guardian*, p. 14.
- UN General Assembly, Declaration on the Right to Development: resolution/adopted by the General Assembly, (December 4, 1986), A/RES/41/128.
- UN General Assembly, Right to food: note / by the Secretary-General, August 5, 2015, A/70/287. Available at: <http://www.refworld.org/docid/55f291324.html> [6th August 2018].
- Winkler H, Rajamani L. 2014. CBDR&RC in a regime applicable to all. *Climate Policy* 14(1): 102-121.
- World Bank. 2010. *World Development Report 2010: Development and Climate Change*, 2010 ed. World Bank Publications: Washington, DC.