

The Global Warming Regime after 2012: Towards a New Focus

PHILIPPE CULLET

Any understanding of global warming must consider the relative contribution to the problem by the richer countries and the rich, over the poorer countries and the poor who are the most affected due to the problem. The legal regime adopted to solve the issue should place the poor and human rights in the centre stage of a new entitlement-based strategy to address the issue. This framework would then involve the development of technology reducing greenhouse emissions in the richer countries and the transfer of the same to the poorer ones.

Global warming has been at the centre of international environmental law and policy at least since the early 1990s. In recent years, it has quickly become one of the main environmental issues and today attracts widespread media attention. Its central role in international policy and politics has been confirmed by the award of the Nobel Peace Prize in 2007 to the Intergovernmental Panel on Climate Change (IPCC).

Global warming caused by anthropogenic emissions is one of the quintessential global environmental problems that humanity faces. Its global dimension is due to the fact that from an environmental perspective the warming of the climate cannot be directly attributed to specific emissions but is caused by harmful emissions anywhere around the world. Further, the harmful impact from a unit of CO₂ is the same regardless of its source.

Yet, global warming is anything but a uniform global issue when it comes to the contribution of individual countries to global warming and the impact that global warming has and will have on individual countries. Similarly, all 6.6 billion people on earth make different contributions to global warming and are differently vulnerable to its impacts.

A general pattern can be relatively easily identified. Today's more economically developed countries have contributed a disproportionate amount of harmful anthropogenic emissions over the past couple of centuries and still contribute disproportionately more in per capita terms to global warming. Developed countries also have a disproportionately higher capacity to mitigate global warming by shifting to less environmentally harmful technologies and a higher capacity to adapt to ongoing global warming impact because they have easier access to the resources needed to adapt.

Similarly, within each country wealthier individuals usually contribute more to global warming and have more capacity to withstand its negative impacts. In other words, poor countries and poor people within each country bear a lesser responsibility for the changes that are and will occur and are much more vulnerable to the negative impacts of global warming [Mendelsohn et al 2006]. Thus, at present more than 98 per cent of people affected by climate disasters live in developing countries [UNDP 2007].

This situation raises two sets of related but separate issues. Firstly, from an environmental law perspective, the different contributions to global warming and the different capacity to respond raise equity issues. The existing global warming legal

Philippe Cullet (pcullet@ielrc.org) is with the School of Oriental and African Studies, University of London.

regime is, in fact, premised on differential treatment between developed and developing countries [Cullet 2003]. There is no doubt that this will continue to be the basis of global warming law in the future. Yet, at this juncture, there is a need for further thinking on equity because a simple north-south division does not lead to effectively addressing the global environmental problem that humanity is facing. In particular, the situations of countries like China and India cannot be effectively captured if they are put in the same category as a small least developed country like Malawi, which is the case under the first commitment period of the Kyoto Protocol.

Secondly, the different vulnerability of people in the face of ongoing global warming damages and the different capacities of people to adapt to global warming raise significant issues from a human rights perspective. Until recently, these have not been given much prominence because the legal regime was conceived largely from an environmental, economic and trade perspective. Fast increasing global warming related damages and the realisation that global warming disproportionately harms the poor are bringing human rights and vulnerability to the fore.

This article focuses on the equity dimension of global warming law. It considers the need for a different understanding of differentiation in the context of the renegotiation of emission reduction commitments. The situation of India in this regard is particularly important because a principled response is required to its twin status as the fifth largest economy and emerging world political power, and as a developing country with relatively low indicators of human development. The first section considers the nature of equity under existing global warming law. It analyses two different aspects of the regime; differential treatment concerning emission reduction commitments and equity under the Clean Development Mechanism (CDM). The second section starts by analysing ways in which differential treatment could be rethought for future emission reduction commitments. It then examines three additional issues that require attention from the point of view of equity and vulnerability. The link between equity and human rights dimensions of global warming is first highlighted. This is followed by a discussion of the legal status of air which warrants further thinking in view of the fast development of various forms of carbon markets. Finally, it considers a different basis for entitlements to pollute that focuses on the needs of the poor and vulnerable.

1 Global Warming: Law and Equity

The UN Framework Convention on Climate Change (Climate Change Convention), ratified by nearly all states, seeks to address the problem of global warming at the international level. It does not mandate specific emission reduction targets but it derives its importance from the fact that its basic principles apply to any subsequent measures taken to reduce harmful emissions. The convention is supplemented by the Kyoto Protocol adopted in December 1997, which sets out quantified emission limitation and reduction commitments for OECD countries and countries undergoing the process of economic transition to a market economy (Annex B Parties). Annex B Parties commit themselves

to reduce their overall GHG emissions by at least 5 per cent below 1990 levels between 2008 and 2012.¹ Developing countries do not take on emission limitation or reduction commitments but have general reporting obligations.²

One of the most significant aspects of the global warming legal regime is that it is based on the recognition that different countries have made different contributions to global warming and have different capacities to address the problem. This is captured under the principle of common but differentiated responsibilities (CBDR). CBDR is in fact a manifestation of a broader dimension of equity, the notion of differential treatment, which has become one of the defining features of international environmental law.

1.1 Differential Treatment and Emission Reduction

The international legal regime is premised on the neutrality of a system based on the formal legal equality of all states. As a consequence, rules are usually deemed just if they apply to all without discrimination. Existing economic or other inequalities are in principle not taken into account. The notion of differential treatment refers to instances where, because of pervasive differences or inequalities among states, formal legal equality and reciprocity are sidelined to accommodate extraneous factors. These include divergences in levels of economic development, different contributions to the creation of a problem or unequal capacities to tackle existing problems.

Differential treatment has been given a central role in the global warming legal regime. The historical responsibility for causing global warming is clearly borne by a limited number of countries broadly corresponding to countries now classified in UN terms as developed countries. In per capita terms, the current responsibility still falls on the same group of countries. Further, it is also these countries that have the greatest economic and technological capacity to take measures to mitigate and adapt to global warming.

This relatively clear baseline for addressing global warming through international legal measures provided the basis for states negotiating the Climate Change Convention to agree on the principle of common but differentiated responsibility. The Climate Change Convention is thus premised on the principle that

Parties should protect the climate system for the benefit of present and future generations of humankind, based on 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.³

This was further developed in the context of the negotiations for the Kyoto Protocol, which led to the adoption of separate commitments for developed, and developing countries. The fact that only one group of countries takes on emission reduction commitments based on the CBDR principle is noteworthy because few international treaties have gone so far in the realisation of the implementation of differentiation. While only developed countries take on emission reduction commitments, this does not mean that developing countries

are doing nothing to address global warming under the existing legal regime.

1.2 Equity in the Context of Flexibility Mechanisms

The relatively progressive nature of the Kyoto Protocol from the point of view of emission reduction commitments in terms of equity was not achieved without some compromises. One of the major concessions that were made in the process of negotiating the Climate Change Convention and more particularly the Kyoto Protocol was the introduction of “flexibility” under the guise of what are now known as Kyoto mechanisms.

Flexibility includes two distinct components. Firstly, it provides an escape clause for developed countries that allows them not to implement the commitments they have taken at home. This is novel in international law because countries are supposed to implement commitments they take by themselves. The rationale for allowing this flexibility is that what matters most is the global environment. Since emission reduction or emission avoidance has the same impact anywhere on the planet, flexibility provides a way for achieving emission reduction commitments through the cheapest emission reduction opportunities available anywhere on the planet. In the first place, it was meant to provide a route to ensure the ratification of the protocol by the US, whose government was to persuade its people that it was sensible to take a commitment for global solidarity but that lifestyles would not be significantly affected. The CDM met with approval from developing countries because it was seen as an instrument ensuring additional foreign direct investment in host countries.

Secondly, flexibility is novel because it gives much increased prominence to the private sector in the implementation of an international treaty. While there is no necessary congruence between the “outsourcing” of compliance and the private sector since the former could happen without the latter, in the context of the Kyoto Protocol, the two are intrinsically linked. This novel dimension calls for new safeguards to ensure that the focus on finding the cheapest emission reduction opportunities and the involvement of private sector actors in doing so do not compromise environmental and social objectives.

1.3 Equity and the Clean Development Mechanism

The Kyoto mechanisms, and in particular the CDM raise a number of equity related questions. Firstly, the focus on finding the cheapest emission reduction opportunities raises questions concerning the justification of the CDM. The CDM was meant to be a subsidiary mechanism in achieving the commitments that developed countries had taken up. The underlying logic was that developed countries would be reducing their emissions and that a part of that reduction would come from CDM projects. However, between 1990 and 2005 emissions have significantly risen in many countries with commitments. Some of the worst increases are in Spain (61 per cent) and Portugal (57 per cent) but countries in other regions of the world are not far such as New Zealand (41 per cent) and Australia (37 per cent).⁴ In fact, the list of countries that have actually reduced their emissions includes only six

countries and only two of the G8 countries, Germany (-15 per cent) and the UK (-6 per cent).⁵ The very logic of the CDM is thus undermined because it will be used by countries with commitments as an authorised loophole to show formal compliance with their international obligations. Countries with commitments can safely rely on the fact that Article 12 of the Protocol, unlike Articles 6 and 17 and the decision setting up activities implemented jointly under the Climate Change Convention in 1995, does not even mention that CDM projects must be supplemental to domestic action.⁶ This is, however, not a legitimate use of the CDM. Indeed, if developing countries signed up to the CDM in a spirit of global solidarity and partnership to contribute “to the ultimate objective of the convention”,⁷ this was part of a balance based on the CDR principle which specifically implies that developed countries take the lead in mitigating global warming rather than rely on cheap emission reduction opportunities in developing countries.

Secondly, the CDM has been conceived from the point of view of short-term mitigation gains. While Article 12 of the protocol provides a basis for reducing the overall cost of compliance with emission reduction commitments, it does nothing to steer the world economy towards a low or zero carbon economy. This is due to the fact the CDM, in effect, provides an escape route for developed countries unwilling to implement drastic energy policy changes. As a result, significant investments in new or existing alternative technologies are not undertaken. Additionally, the CDM does not include a framework that would ensure that projects are prioritised in accordance with their impacts on the poor and vulnerable and the environment in general. This is of concern because there are many global warming friendly activities that are neither environmentally nor socially progressive. One of the examples is that of big dams. By the mid-1990s, it had become widely recognised that big dams had significant social and environmental costs that required at the very least reconsidering their place in the context of the drive towards making development more sustainable.⁸ In the course of the present decade, the difficult learning curve of the previous two decades seems to have all but evaporated. Big dams, as single schemes or in new avatars such as the mammoth project to link peninsular rivers, have found a new justification because they are a global warming friendly source of electricity [World Bank 2004]. Yet, this does not answer any of the questions previously raised concerning the justifications for big dams from a social or environmental point of view. In other words, while big dams may be better than coal-fired power plants from a greenhouse gas emissions perspective, this is insufficient to justify them.

Thirdly, the CDM has perverse side effects in the long term for developing countries. Indeed, the search for the cheapest possible emission reduction opportunities means that developing countries are exhausting these options for the benefit of developed countries’ compliance with their own commitments. Such options will not exist any more once developing countries take on commitments, something that is unavoidable in the

long term from a global environmental point of view. In the case of land use projects, other issues may arise in the future. Where the positive global warming impact of a project is premised on the potential of timber to store carbon, two scenarios may arise. If the host country does not ensure that carbon absorbed under CDM projects is kept stored, the question may arise whether these emissions are to be attributed to the host country. This would be a double loss for the country affected. If the host country ensures that timber is maintained in the form of forestland the issue that arises is the lack of recognition of the trade-off that this long-term land use for global warming purposes implies from the point of view of development opportunities for local people.

Fourthly, while CDM can theoretically be an instrument of the public as well as the private sector, in practice it has largely been conceived as an instrument used by the private sector. This novel way to implement an international law agreement calls for specific safeguards to ensure that all the environmental and social conditions are complied with. The lack of an international body capable of such enforcement – the CDM executive board does not have such powers – implies that each country has to do this at the national level. Additionally, this also means that there is no international supervision of the extent to which sustainable development is promoted through the CDM and vulnerability addressed. This is problematic for two reasons. Firstly, the poor and vulnerable who would benefit from a levy on CDM projects for sustainable development activities have little capacity to influence a process that is led by governments and private sector interests. Secondly, the international framework guiding the CDM fails to provide effective guidance on technology choice and project focus.⁹ The extent of the CDM's contribution to sustainable development and to long-term energy policy changes is thus left to individual host countries' decisions. China has, for instance, decided to tax different types of projects differently. Thus for HFC and PFC projects, the government takes 65 per cent of the benefits while for energy efficiency improvement and renewable energy projects, it only takes 2 per cent.¹⁰ Similar measures must be adopted at the international level because governments may have their own reasons to favour their private sector industry over sustainable development and fail to either differentiate between types of projects or tax projects for investment in measures favouring the most vulnerable.

Where there is no framework for distributing the benefits of CDM projects, this implies that cheap mitigating opportunities are used by private sector actors for their own individual benefits as in the case of any other commercial transaction. This is problematic because without investments towards a low carbon economy it is citizens who will suffer the negative consequences of any emission stabilisation or reduction commitments that will be taken in the near or medium-term future. In other words, private sector actors make money on account of global warming but since the projects for which CERS are obtained are not guided by a broader policy to reorient the economy towards a low carbon economy, the gains for the

broader society in either environmental, social or financial terms are negligible.

2 Rethinking Global Warming Law Post-2012

Negotiations for new measures to address global warming after 2012 are ongoing. Yet, the framework within which this is taking place is inadequate. As a result, a number of elements need to be either rethought or given new content. This section focuses on some of the many issues that need rethinking in the continuous search for an effective global warming regime. It highlights the need for a new understanding of differentiation. It also emphasises the primacy of human rights and vulnerability as a necessary foundation of further measures on climate change. Further, it argues that air should be recognised as a common heritage to ensure that the benefits of climate mitigation are not appropriated by private actors, rather ploughed back into renewable energy or other measures that are sustainable and primarily benefit the most vulnerable. Finally, it argues that a new basis for allocating entitlements must be found to ensure that the poor and vulnerable are not indirectly dispossessed of something that is in essence humankind's primary survival resource.

2.1 Differential Treatment for Future Emission Reduction Commitments

The basis for differentiation remains as strong as it was at the time of the negotiations of the Climate Change Convention. Indeed, on the whole it is the same small number of countries that contribute most to climate change in per capita terms. At the same time, there is still a majority of countries whose contribution to climate change is negligible, starting with all least developed countries. These countries are also the most vulnerable to the impacts of global warming.

Yet, rapid economic development in some part of the world over the past decade has altered the balance of overall contributions that countries make. In particular, the share of big developing countries like India and China in global GHG emissions has increased since 1990. This is due to the fact their emissions have been growing at least 4 per cent per year, faster than any other region of the world.¹¹ Since the global warming legal regime is primarily about achieving an environmental benefit, any substantial increase in emissions is to be taken into account wherever the additional emissions are generated.

The position of India is particularly noteworthy with regard to the need to rethink differential treatment for subsequent commitment periods. On the one hand, India remains without any possible doubt a developing country. India's position in the ranking of the Human Development Index at number 128 just ahead of several least developed countries like Laos and Cambodia reflects the reality that the majority of Indians experience. On the other, India has experienced fast economic growth in recent years. Additionally, it has increasingly sought to flex its political muscle on the world stage by seeking recognition as a major power.

In terms of global warming, like in many other dimensions, India is today two countries. The India that shines has standards

of living that often match those of developed countries with a concomitant negative environmental impact in terms of global warming. The India of the majority of the population has made little progress since 1990. Thus, 77 per cent of the population has an income of Rs 77 per day.¹² In fact, while there has been some reduction in the percentage of people in “extreme poverty”, the overall number of poor and vulnerable people has increased from 73.3 to 83.6 crore from 1993-94 to 2004-05.¹³

From an equity perspective, India must be analysed from these two different perspectives. On the one hand, from the perspective of global warming, an international problem requiring the collaboration of all states to address it, India has a duty to contribute to efforts to mitigate global warming. In fact, India is already contributing to global warming mitigation through its involvement in the CDM like all other developing countries. Yet, progressively, more needs to be done. Additionally, from the perspective of a big country that shows no signs of overall vulnerability, it is increasingly difficult to justify that India should hide behind the veil of its developing country status since it has little in common with countries like Malawi or the Maldives in terms of vulnerability.

On the other hand, the overwhelming majority of India's population is as vulnerable as the average inhabitants of other developing countries, including in many cases people in least developed countries. India's rank of 94 on the Global Hunger Index (out of 118 countries listed) reflects this other reality. Equity, as realised through differential treatment in international law cannot justify the imposition of emission reduction or stabilisation commitments in a way that would increase the vulnerability of the already vulnerable majority of the population.

It is also increasingly difficult to attribute emissions on the basis of the fiction of legal equality of states alone. On the one hand, the direct or indirect contribution of each individual country varies, according to wealth and other factors. On the other hand, questions arise concerning the responsibility of a country for all emissions arising from its territory. The case of special economic zones (SEZ) is a telling example. Where companies invest under conditions where they are not bound by all social and environmental law in place and where they export all the products they manufacture, equity requires that emissions be at least partly allocated to the actors that take advantage of the lax legal regimes that increase profits on products that are marketed in wealthier parts of the world. Beyond SEZs, a number of other situations may call for similar treatment, for instance, where deforestation is undertaken to use the cleared land to produce cash crops that are mostly exported. New mechanisms for allocating responsibility for global warming must be found. These should take into account not only countries' contributions but also that of actors that directly benefit in economic terms from greenhouse gas emitting activities. The issue can therefore not be reduced to a simple dichotomy between taking or not taking commitments. It is also not a simple case of whether developing countries (the G77 group) should or not take on commitments under the Kyoto Protocol.

Firstly, differential treatment is not in itself an instrument that seeks to favour developing countries. It so happens that under

most existing treaties, differentiation has been approved based on countries' classification as developed or developing. Yet, since there is no generally agreed definition of which country is a developing country and since the decision is often left to self-identification, this is in itself no effective guide. Further, the simple division in two groups is only for convenience but is increasingly itself inequitable since it does not take into account the complete lack of congruence between the respective situations of Malawi and South Korea or Vanuatu and India. The real purpose of differential treatment, which is to foster substantive equality and a partnership among all countries in solving problems of a global nature, cannot be equated with the division of the world between developed and developing countries. There are thus a number of situations where developing countries should either be individually targeted for preferences or at least clubbed in smaller groups so that small island states that are going to disappear as a side-effect of global warming do not have to be put in the same category as OPEC countries that have become much wealthier because of the growth of the global carbon economy.

Secondly, differential treatment goes beyond the granting of preferences based on differences in levels of economic development. In fact, differential treatment in environmental treaties primarily seeks to foster the overall environmental goals of the agreement by fostering the participation of countries that may have little incentive to participate. Thus, in the case of global warming, developing countries as a whole would have had little incentive in 1992 to join a global legal regime to address a problem they had hardly contributed to cause.

The implication is that differential treatment in the context of subsequent commitment periods under the Kyoto Protocol needs to be much more closely tailored to the overall environmental goals of the regime while providing a much-needed equity angle. This means that differentiation must be an instrument that takes into account both the contribution of each country to the problem, its capacity to mitigate and adapt and the vulnerability of its population. In the case of a country like India, this also requires going beyond a simplistic decision on commitments versus no commitments. What differential treatment calls for is that big countries like India and China whose emissions grow faster than any other regions of the world take up their responsibilities as member of the international community and more specifically as aspiring military and political global powers. At the same time, the focus of differential treatment on equity clearly bars the imposition of any commitment that would harm the majority of the vulnerable population of these countries. Mechanisms thus need to be devised to ensure that the burden of any commitments fall exclusively on polluting industries, on the people whose lifestyle makes a significant contribution to global warming and on the government to ensure that global warming friendly policies are implemented. In other words, commitments should go alongside with new forms of international technology transfers and new forms of resource redistribution at the national level.

The argument that India cannot afford to curb its economic growth to please the developed world is appropriate. However, it does not provide an answer to the fundamental need to reorient

growth and to find alternative economic development paths. One answer may lie in technology transfers where the west provides the more environmentally friendly technologies it has already developed to ensure that economic growth in developing countries is not hampered by taking global warming friendly measures. Another answer lies in a focus on renewable energy, something that can easily be fostered by reallocating resources devoted away from carbon intensive energy sources. In other words, addressing global warming does not have to be a proposition, which costs in terms of economic growth. It may in fact provide an excellent opportunity to rethink failed economic development strategies. Thus, global warming cannot be an excuse for promoting nuclear energy as an alternative to carbon-based energy because there is no environmentally acceptable solution to nuclear waste at present and a number of side effects of nuclear power generation on human health are either unknown or not in the public domain.¹⁴

With regard to resource redistribution, two main points can be made. Firstly, one option may be for some developing countries like India and China to take on commitments with a view to ensure that global warming is effectively averted. This would give a strong signal that the world cannot tolerate more emissions and that further economic development strategies need to be rethought throughout the world. The commitments taken by such countries in the name of the global environment benefit that is global warming mitigation and reduced costs of global warming adaptation should be borne in part or entirely by developed countries under the CBDR principle. Secondly, any form of compensation that is provided by developed to developing countries with commitments should be carefully targeted. It must benefit only the poor and on priority the poorest and the most vulnerable. Resources made available should be invested primarily in mitigation and adaptation measures for the poor since they are the most vulnerable and least able to adapt as well as in measures that put the poor at the centre of any new economic development strategies. Together this will ensure that differentiation contributes to global and local environmental benefits as well as to poverty alleviation and the realisation of human rights. This new framework is imperative to redirect global warming law towards being more environmentally friendly and more equitable.

2.2 Putting Vulnerability and Human Rights at the Centre

Links between global warming and human rights can be identified at different levels. Yet, human rights have not been a significant dimension of global warming policy debates. This can be partly ascribed to the fact that while global warming is in essence an environmental problem, it requires much more significant changes in strategies of economic development than other environmental problems. Additionally the link between GHG emissions and economic growth has ensured that debates have given significant attention to economic, trade and financial aspects of global warming. Another less obvious reason is that the addition of a human right dimension to global warming has the potential to completely change the way in which law and policy is conceived in this area. Indeed, the human rights

consequences of global warming are potentially so severe that they will overwhelmingly prevail over economic and related considerations if human rights are effectively taken into consideration in global warming law and policy. Nevertheless, human rights must be placed at the centre of law and policy on global warming. This is a precondition for ensuring the legitimacy of global warming law and ensuring that measures taken on environmental grounds do not have negative human rights consequences.

Human rights concerns arise both in the context of mitigation and adaptation. With regard to global warming mitigation issues arise for developing countries in taking on emission stabilisation or reduction commitments. Indeed, commitments are only justifiable if their consequences are completely offset for the majority of the poor. This is a direct consequence of the principle that countries can take progressive measures to realise socio-economic rights but they cannot backtrack.¹⁵ It goes further than this since global warming commitments should also not lead to any reduction in the measures currently taken to progressively realise human rights. Thus, it would not be enough to take measures to reduce GHG emissions in the generation of electricity. At the same time, measures must be taken to increase access to electricity for the majority of villagers who do not have access at present. This may require a reduction in consumption from the wealthier individuals and economic actors or the installation of alternative, CO₂ free sources of electricity in villages.

Conversely, the realisation of human rights to life, health, food, water and environment for the majority of the poor should be put at the centre of global warming policies. In other words, any shift away from a carbon-based economy must be conceived in priority with the realisation of human rights in mind.

In the context of adaptation, human rights consequences are easier to identify since there is an immediate connection between ongoing global warming-related damages and the realisation of human rights. Again, since the poor are the most vulnerable to global warming, they are also the most affected by ongoing damages. Thus, food shortages and floods induced by global warming invariably affect the poor first and need to be given priority.

2.3 Recognising Air as a Common Heritage

Air was for the longest time the object of little interest by lawyers, economists or policymakers. Indeed, while air is the first basic element that allows us to survive, it was for all practical purposes beyond appropriation. This situation changed relatively quickly over the course of the 20th century with the introduction of aviation that led states to assert control over their airspace.¹⁶ At the same time, the question of air pollution led to the realisation that while air may be beyond legal control, humankind was able to impact on air in various negative ways. Yet, a convention like the Convention on Long-range Transboundary Air Pollution does not address the question of air pollution from the point of view of states' right to pollute.¹⁷ As a result, it proposes a series of measures to reduce air pollution without trying to ascribe entitlements or addressing the status of air or the atmosphere. Beyond airspace, which cannot be directly compared with air or the

atmosphere, the only other dimension that states have addressed is that of outer space where the consensus is that it is a common heritage of humankind.¹⁸

In the context of the climate change regime, the only thing the international community has agreed upon is that the climate and its adverse effects are a common concern of humankind.¹⁹ This implies an acknowledgement that the climate can only be addressed through common action of all states but it does not indicate whether states are in a position to lay specific claims on air or on air pollution. The Kyoto Protocol does not address this issue directly either. However, the protocol indirectly provides the most polluting nations on earth specific polluting entitlements. In other words, while no legal claims to air or the atmosphere are staked by any state, an indirect appropriation takes place. This is problematic because science has clearly showed that the global sink that is the atmosphere can only absorb a limited amount of carbon. Above a certain limit, consequences which are extremely harmful will most likely take place. In other words, the polluting rights indirectly given to developed countries under the Kyoto Protocol constitute entitlements that affect all nations on earth.

The approach taken in the Kyoto Protocol is flawed from the outset. Indeed, it fails to recognise that if the basis for regulation is grandfathering of existing emissions, as is the case under the current model, there is no reason why countries that industrialised later would be willing to cooperate beyond mere words on addressing climate change. It is now time to not only give the global warming regime a new basis but also to rethink the notions of air and atmosphere.

The Kyoto Protocol is in principle a treaty focusing on an environmental problem. Yet, in reality because of the nature of the problem being addressed, the real focus has been on economic development and the impacts that addressing climate change will have on economic growth. The debate has thus been framed mostly as an economic development issue within the broader context of environmental quality. This is unfortunate because it sidelines increasingly important impacts of air pollution on human health. More generally, the current regime fails to take into account the human impacts of air pollution and thereby fails to directly acknowledge that vulnerability is not just an issue in terms of the impacts of climate change but also in terms of the causes of global warming. For instance, the urban poor in developing countries are much more likely to be affected by air-related health issues than the middle classes.

Since air pollution cannot be regarded as being limited to a dichotomy between environmental quality and economic growth, there is a need to have a broader perspective on the legal status of air. Given that there is only one atmosphere, it follows that it needs to be managed as such. Any individual control is physically impractical and would go against the need for a global solution. Air, the atmosphere and the global climate should thus be seen as a common heritage of humankind that needs to be commonly conserved and managed. The most obvious starting point for developing this concept is the notion of common heritage developed in the context of the law of the sea. This would include international regulation and preclude private appropriation.²⁰

The introduction of common heritage status would make a significant contribution to policy debates on the future climate change regime. Indeed, it would provide a new solid basis for rethinking the allocation of emission reduction commitments and for regulating the use of flexibility mechanisms according to priorities focused on differential treatment and vulnerability rather than in terms of economic efficiency and the indirect allocation of individual property rights over a global heritage. The introduction of common heritage status would, for instance, necessitate rethinking the CDM since benefits enjoyed by project partners in the name of global warming mitigation cannot be justified unless the policy framework prioritises social and environmental benefits ahead of economic benefits. Indeed the resources garnered through the CDM should be used for activities that specifically contribute to fulfilling the global partnership implied by the common heritage status. This is even more important in a context where governments often claim that they have insufficient resources to implement effective environmental and social policies.

Turning the air, the atmosphere and the global climate into a common heritage will no doubt be fiercely resisted by a number of actors who have and still benefit immensely from the absence of clear concepts determining who is entitled to “use” air and “pollute” the atmosphere. Yet, this is in fact but a small extension of a notion which was accepted years ago by the Supreme Court, which determined that air is a public trust.²¹ The notion of public trust implies that the state has to act as a trustee on behalf of all individuals, must take a long-term view of its protection and must ensure socially equitable and environmentally sustainable access to and use of the resource.²² It also implies that the state is not in a position to trade away or sell pollution rights or carbon credits. These safeguards include fostering the realisation of human rights and ensuring that no violations of existing protection level takes place as well as the respect for environmental law in general and not just of global warming law.

2.4 Towards New Forms of Entitlements on Air

The basis for today’s global warming law is, on the whole, the grandfathering of existing emission patterns. In political terms, this can be easily explained since any other formula would affect existing polluters more than the economic actors or the countries that contribute less to global warming. Yet, this is an ineffective way to address global warming. Indeed, while a baseline based on existing energy use puts the burden on developed countries and on polluting industries, it does not provide any compensation mechanism to non-industrialised countries and to people who have not benefited from the standards of living achieved while causing global warming.

As long as existing levels of economic development and existing pollution patterns constitute the basis for regulation, global warming law will be little more than a reflection of realpolitik considerations. An equitable and effective global warming regime thus needs to be based on a different paradigm that takes into account a broader variety of factors. The starting point for a global warming regime is the common benefit that a healthy global environment represents for the whole of humankind and for life on earth in general. Since the environment is the starting

point, basic principles of environmental law, such as precaution and equity are at the centre of efforts to define entitlements. In today's world, environmental protection is conceived by all states as encompassing human rights, social and economic aspects. In other words, it is not only the realisation of the right to a clean environment recognised in nearly 120 countries, that is at stake but also the realisation of all human rights.

Such a broad framework does not provide the background for the kind of regime put in place under the Climate Change Convention and the Kyoto Protocol. Indeed, economic growth and economic development should not have any primacy in the development of national or international law measures to address an environmental problem. In broad terms, it is human development and not economic development, which should be the starting point for a global warming regime. Human development includes economic development. Thus, an environment and human rights based legal regime is not against economic development. In fact, the link between economic development and the realisation of human rights, in particular socio-economic rights, is well established. Yet, the difference is that under an environment and human rights-based scheme, economic development is an instrument that contributes to the realisation of the human rights of the poor and marginalised. In other words, the core function of economic development is its focus on the poor. This calls for policies and laws whose success is exclusively rated according to their impact on the poor.

In terms of global warming the first step towards reorienting thinking is to move away from a system that allocates polluting rights based on past or present emissions. Indeed, any such scheme rewards long-term polluters – developed countries – and provides incentives to the few countries among developing countries such as some east Asian countries, India and China to increase their pollution levels as fast as they can so that their own emissions levels will be grandfathered the day they take on commitments under the Kyoto Protocol. This is unjustifiable in environmental terms and inequitable for the majority of developing countries and all least developed countries that will be made to suffer the consequences of their lower levels of economic development twice over.

The most widely proposed alternative to grandfathering allocations is one based on per capita entitlements. The basis for an equitable global warming policy should indeed take into account that every single human being has a right to a certain quantity of emissions. These include survival emissions and emissions related to the growing of food or the use of firewood to cook meals or purify water. This also includes livelihood emissions, which relate to everyone's right to benefit from the fruits of economic and technological development, for instance, by having access to electricity. Thus, there should be a basic human entitlement to a certain level of emissions. This level needs to take into account the needs of the global environment and may thus imply reduced emissions by the minority of the world's population that directly or indirectly emits much more than what the global atmosphere can support.

This entitlement is to be conceived from two related but distinct perspectives. At the international level, it provides a new way to allocate emission rights, which is fairer to countries that have not benefited from the fruits of economic growth. At the national level, it provides a similar mechanism whereby the poor and marginalised that do not have access to the amenities that their wealthier counterparts benefit from, obtain a right to benefit from existing resources. In other words, the developed world and the minority of wealthy citizens within each country each have a debt to the poorer segments of the community.

While the basis for entitlements should be per capita, this cannot be the only criterion. Two reasons, at least, call for a more selective approach. Firstly, a per capita entitlement may have the negative impact of fostering population policies, which may not otherwise be in the interest of the concerned countries. Secondly, an equitable legal framework should also take into account that some countries have low population density because their environment is already degraded to such an extent that population has failed to grow over time. Since these countries usually happen to be among the poorest as well, recognition of their situation must also be taken into account.

The entitlement proposed here must differ from a Kyoto Protocol entitlement in an additional respect. The debt that rich countries and rich people within each country have accumulated towards the poor cannot be redeemed by simply stabilising emissions or reducing them. The entitlement scheme must be based on the premise that the only way in which emissions can be accessed from the poor that do not use their quota is by accepting a duty to invest an equivalent amount of money towards developing non-carbon development paths. If that is not undertaken, the entitlement system will simply end up being another market mechanism through which the poor will sell their entitlements but without any policy framework imposing the necessary changes for effectively mitigating global warming in the long term. Thus, any future CDM should only fund projects that provide zero-carbon emissions so that the CDM itself becomes a vehicle for technology transformation and not just a cheap compliance mechanism that, at best, does nothing for the poor and at worst contributes to harming them further where already discredited development options are reintroduced in the guise of global warming friendly policies.

The new entitlement framework is thus conceived as a mechanism through which the poor and vulnerable can demand new

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technologies or emissions' convergence. In other words, this entitlement framework imposes on the rich parts of the world (rich countries and rich segments of the population) to either reduce their own emissions or invest in ways and means so that the poor do not follow the rest of the world in increasing their own emissions as economic development eventually reaches them. In India, where the richest classes produce 4.5 times more CO₂ than the poorest class and almost three times more than the all-India average, this convergence is also required.²³ A number of different initiatives could be taken. For instance, in a situation where only 31 per cent of rural households use electricity, there is untold potential for emissions increase if the poor are provided with the same kind of amenities that the rich benefit from.²⁴ The entitlement framework based on human rights indicates that the poor also have a right to the same lifestyle that the rich enjoy. As a result, the only way to ensure that poverty alleviation does not harm the global environment more while at the same time providing alternative economic development paths for the rich and poor alike is for the rich to invest in new ways to deliver development benefits. For instance, electricity generation in India could easily be focused on local solutions, in particular solar energy. Similarly, technological research should focus on new forms of public transport rather than on private vehicles with a lower negative global warming impact. Simply improving or changing the fuel on which private vehicles run may have a positive contribution on the global environment, but as witnessed in the case of Delhi and its shift to CNG on a large scale this does

not solve the environmental pollution caused by vehicles per se and does not address the huge social and other problems caused by increasing reliance on private modes of transportation [Kumar and Foster 2007].

3 Conclusion

Global warming is a threat to the whole of humankind and to life on the planet, as we know it. Yet, human-induced global warming is a deeply inequitable environmental problem. On the one hand, it has been caused by economic growth that has only benefited to-date a minority of the world's population concentrated in a small minority of countries. On the other hand, the people who are most at risk of global warming and its negative impacts are the poorest countries and the poorest people in each country. It is in large part the rich that hold the key to solving the problem either by reducing their own emissions or by investing in alternative economic development strategies.

The solution to global warming does not lie in simplistic solutions such as a simple shift from GHG emitting technologies to nuclear technology as sometimes advocated on environmental reasons.²⁵ The solution lies in reframing the rules of the game so that the poor take centre stage. This can only be achieved by putting equity and human rights at the centre of a new entitlement-based strategy, which recognises that global warming is an environmental problem that can only be comprehensively addressed if its human dimension is put at the centre of the legal regime adopted.

NOTES

- Article 2, Kyoto Protocol to the United Nations Framework Convention on Climate Change, Kyoto, December 11, 1997 (hereafter Kyoto Protocol).
- See Article 4(1) and 12, Framework Convention on Climate Change, New York, May 9, 1992 (hereafter Climate Change Convention) and Article 10 of the Kyoto Protocol, fn 4.
- Article 3(1), Climate Change Convention, fn 2. See also, Article 10(1), Kyoto Protocol, fn 1.
- In the case of Spain and Portugal, while under the EU "bubble", they are allowed respectively a 15 per cent and 27 per cent increase, both are still much above these redistributed commitments. For the intra-EU allocation, see, e.g., 'Assigned Amount Report of the European Union', Report from the Commission, COM (2006) 799 final (2006).
- See, e.g., 'A Joke on the World', 16/14 *Down to Earth* 32 (December 15, 2007). In the case of Germany and UK, these reductions are also much less than what they have to achieve under the EU bubble, respectively a 21 per cent and 12.5 per cent reduction. See report from the Commission, fn 4.
- See Articles 6 and 17 Kyoto Protocol, fn 1 and Decision 5/CP.1, Activities Implemented Jointly under the Pilot Phase, in *Report of the Conference of the Parties on Its First Session, Framework Convention on Climate Change, Conference of the Parties, First Session, Berlin, March 28, April 7, 1995*, UN Doc, FCCC/CP/1995/7/Add 1.
- Article 12(2), Kyoto Protocol, fn 1.
- See, for example, World Bank, Operations Evaluation Department, Learning from Narmada (Précis No 88, 1995) noting that "[t]he broad lesson is that the social dimensions of civil works projects need much more attention from both the Bank and its borrower governments".
- In fact, even on the use of nuclear energy projects under the CDM, nuclear facilities projects are not barred but Annex I countries are to refrain from using the certified emission reductions generated. See Preamble, Decision 17/CP.7, Modalities and Procedures for a Clean Development Mechanism as Defined in Article 12 of the Kyoto Protocol, UN Doc FCCC/CP/2001/13/Add 2 (2001) and Decision 3/CMP.1, Modalities and Procedures for a Clean Development Mechanism, as Defined in Article 12 of the Kyoto Protocol, UN Doc FCCC/KP/CMP/2005/8/Add 1 (2005).
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- Id., at 7.
- Alison Katz, 'Chernobyl: The Great Cover-up', *Le Monde diplomatique* (April 2008), available at <http://mondediplo.com/2008/04/14who>.
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- Article 1, Convention on International Civil Aviation, Chicago, December 7, 1944.
- Convention on Long-range Transboundary Air Pollution, Geneva, November 13, 1979.
- Article 11, Agreement Governing the Activities of States on the Moon and Other Celestial Bodies, New York, December 18, 1979.

- Preamble, Climate Change Convention, fn 5.
- Part XI, United Nations Convention on the Law of the Sea, Montego Bay, December 10, 1982 and Agreement Relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea of December 10, 1982, New York, July 28, 1994.
- M C Mehta vs Kamal Nath, 1997, 1 SCC 388.
- Id.
- Greenpeace, 'Hiding behind the Poor' (A Report by Greenpeace on Climate Justice, Greenpeace India, 2007).
- 'What Equals Effective', 16/14 *Down to Earth* 62, December 15, 2007.
- David G Victor, 'The India Nuclear Deal: Implications for Global Climate Change, Testimony before the US Senate Committee on Energy and Natural Resources', July 18, 2006 arguing that the Indo-US nuclear deal is beneficial to both countries on environmental grounds because nuclear energy generation emits fewer GHGs than fossil fuels.

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